



Winnipeg Regional Health Authority

COMMUNITY HEALTH ASSESSMENT 2014



Winnipeg Regional
Health Authority
Caring for Health

Office régional de la
santé de Winnipeg
À l'écoute de notre santé

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Information concerning this report can be obtained by contacting:

Evaluation Platform, Centre for Healthcare Innovation

Division of Quality & System Performance

Winnipeg Regional Health Authority

753 McDermot Avenue

Winnipeg MB R3E 0W3

Telephone: [204-926-7000](tel:204-926-7000) (WRHA)

Email: cha@wrha.mb.ca or researchandevaluation@wrha.mb.ca

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Message from Arlene Wilgosh

PRESIDENT & CHIEF EXECUTIVE OFFICER WINNIPEG REGIONAL HEALTH AUTHORITY



It's difficult to get where you're going if you don't know where you are.

Published every five years, the Community Health Assessment provides an intensively-researched snapshot of where our community currently stands in relation to a broad range of key health indicators. For those of us working in the health care sector – and for the many organizations and programs associated with health, wellness and community development – it provides a solid foundation for decision-making based on the best available data.

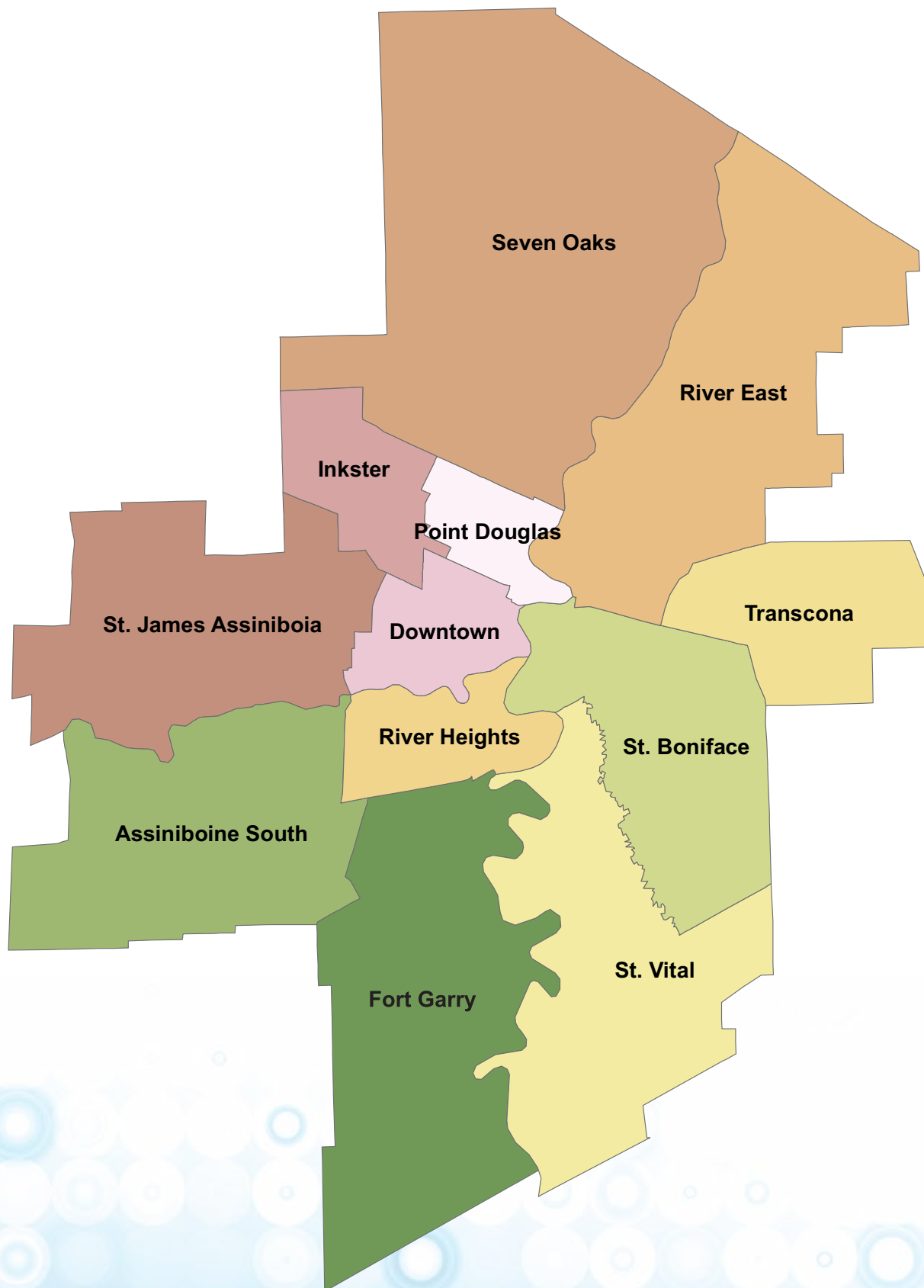
As in past years, the Winnipeg Regional Health Authority has taken much care in preparing this report. We have sought out and been guided by the constructive feedback we received following our 2009 report, with the goal of delivering a final product that is accurate, informative, and user-friendly.

This is where we are. And now, by working together, we can continue the work of developing evidence-informed strategies and priorities that can help us achieve our shared goal of building stronger, healthier communities.

May we continue to support each other on the journey.

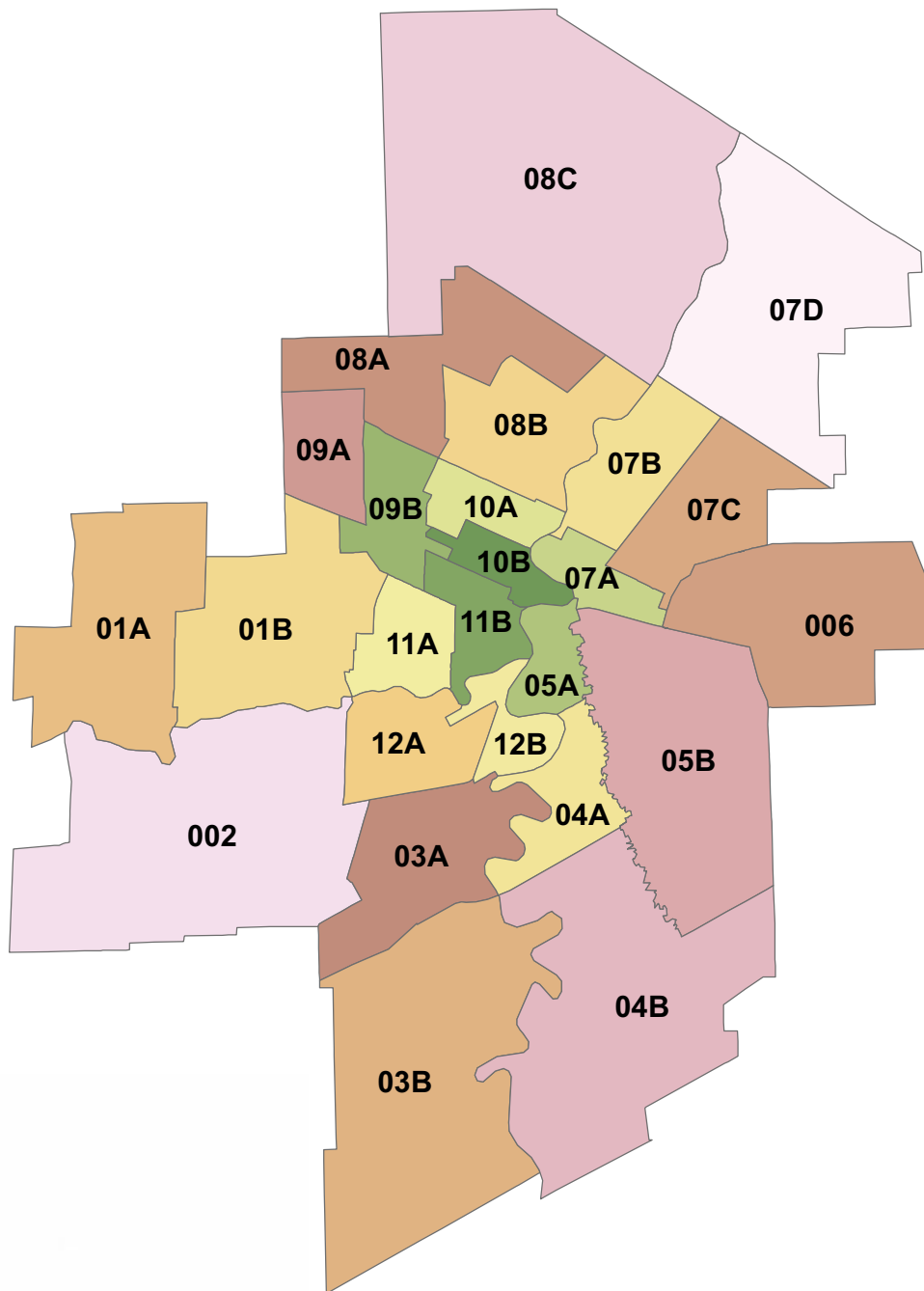
Winnipeg Regional Health Authority (WRHA – the Region)

COMMUNITY AREAS



Winnipeg Regional Health Authority (WRHA – the Region)

NEIGHBORHOOD CLUSTERS



Neighborhood Cluster:

01A St. James-Assiniboia W
01B St. James-Assiniboia E
002 Assiniboine South
03A Fort Garry N
03B Fort Garry S
04A St. Vital N
04B St. Vital S
05A St. Boniface W
05B St. Boniface E
006 Transcona
07A River East S
07B River East W
07C River East E
07D River East N
08A Seven Oaks W
08B Seven Oaks E
08C Seven Oaks N
09A Inkster W
09B Inkster E
10A Point Douglas N
10B Point Douglas S
11A Downtown W
11B Downtown E
12A River Heights W
12B River Heights E



Community Health Assessment Report 2014

VOLUME 1: AN OVERVIEW OF COMMUNITY HEALTH ACROSS THE WINNIPEG HEALTH REGION

Winnipeg Regional Health Authority

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Summary of Key Findings from the 2014 Community Health Assessment Report for The Winnipeg Health Region

The 2014 Community Health Assessment Report describes population and community characteristics, health status, determinants of health, and healthcare access, utilization and quality across the Winnipeg health region which administratively includes the small northern community of Churchill. This volume presents an overview of the indicators for the Winnipeg Regional Health Authority (WRHA – the Region) and health inequalities across the Region.

HEALTH STATUS

The Region's population has been growing over the past decades and continues to grow: the projected population will reach 1,070,300 in 2042, a 45.8% increase from the observed population in 2013 (734,187). More importantly, the senior population's proportion (aged 65 years and older) will increase from 14% in 2012 to 20% in 2042.

Nearly 60% of residents aged 12 years and older reported very good or excellent self-perceived health, but only 38% of them reported a high score on mental health. Self-perceived health is relatively stable over time and similar to that for other large urban health regions (Peer Group A)¹ and the national average.

Overall, health in the Region is improving, but improvements are needed in some areas

Mortality has been decreasing and life expectancy has been increasing. However, life expectancy at birth (77.8 years for males and 82.2 years for females in 2007-09) was lower and premature mortality rate (2.93 per 1,000 in 2011/12) was higher than the national average (2.59 per 1,000 in 2011/12).

Circulatory system disease, cancer, respiratory system disease, injury and poisoning, and mental illness are the top five causes of deaths in the Region.

Genital chlamydia and gonorrhea are the two most commonly reported bacterial sexually transmitted infections in the Region and in Canada as well.

There is some good news for chronic diseases: hypertension, ischemic heart disease, acute myocardial infarction, and stroke incidence rates decreased over time; while diabetes incidence rate remained relatively stable.

Mental and substance disorders are a significant contributor to disease burden. In 2007/08-2011/12:

- 25% of residents aged 10 years and older were treated for a mood and anxiety disorder;
- 5% of residents aged 10 years and older were treated for substance abuse;
- 10% of residents aged 55 years and older lived with dementia.

Injuries are one of the leading causes of hospitalizations and deaths and accounted for 7.5% of all hospitalizations and 6.5% of all deaths in the Region during 2007-12.

The Region is facing a large challenge in trying to improve early life development and health:

- In 2011, 23.9% of newborns in Winnipeg and 41.2% of newborns in Churchill were exposed to at least one of the five prenatal risk factors [maternal alcohol drinking, maternal smoking, maternal anxiety/depression, family financial difficulties during pregnancy, and mother's low educational status (less than high school)];
- 8.1% of babies were born prematurely during 2005/6-2008/09 and 8.2% of newborns were considered small-for-gestational-age during 2007/08-2008/09;

In the 2010/11 school year, 28% of Winnipeg kindergarten children (around age 5) and 33% of Churchill kindergarten children were not ready for grade 1 in one or more of the five domains measured by the Early Development Instrument (EDI).

Compared to residents in other large urban health regions and the overall Canadian population, the Region's residents are doing better with respect to rates of tobacco smoking and physical activity, but worse in other health behaviors. In 2011/12:

For example, Regina Qu'Appelle RHA, Saskatoon RHA, Capital District Health Authority (Halifax NS), Region de Laval (Quebec). Refer to the following URL for the entire list: www12.statcan.gc.ca/health-sante/82-228/search-recherche/lst/page.cfm?Lan=E&GeoLevel=PEER&GEOCODE=01

A large proportion of residents are not practicing healthy behaviors or not using preventive services

- 22% of the Region's residents aged 12 years and older had an indicator for binge drinking in the past year versus 19.1% in other large urban health regions and 18.2% in Canada;
- 39.1% of the Region's residents aged 12 years and older consumed fruit and vegetables five or more times per day versus 42.4% in other large urban health regions and 40.5% in Canada;
- 54.2% of the Region's residents aged 12 years and older were overweight/obese versus 54.1% in other large urban health regions and 52.3% in Canada.

In 2007/08, more than one quarter of children aged 2 years in Winnipeg and Churchill did not have complete immunization coverage; nearly one third of children at age 7 in Winnipeg did not have complete immunization coverage. Older adult (65 years and older) influenza immunization coverage in Winnipeg was 63% in 2007/08 and in Churchill was 57% in 2007/08; these rates are lower than the national target (80%, 2010).

Women's cancer screening participation rates in Winnipeg are slightly lower than the national benchmarks, and even lower in Churchill.

In 2008/09, 82.5% of mothers initiated breastfeeding soon after their child's birth, a slight decrease from the past. However, data on breastfeeding duration are not available.

- 19.2% of the Region's residents aged 12 years and older smoked daily or occasionally versus 21.6% in other large urban health regions in Canada;
- 56.7% of the Region's residents aged 12 years and older reported being physically active or moderately physically active (leisure + travel activities only) versus 54.8% in other large urban health regions and 53.8% in Canada;

Within the Region, factors that impact health (e.g., education, employment, income, and other socio-economic factors) are unequally distributed.

Generally, higher income communities have better health across the Region:

- Residents in lower income communities are more likely to die and to die at an earlier age. During 2007-11, there was a nearly 17-year difference in female life expectancy and a 15-year difference in male life expectancy between the lowest income neighborhood cluster (NC) of Point Douglas South and the highest income NC of River East N. The premature mortality rate (PMR) in the lowest income NC was 5-fold higher than that of highest income NC in 2007-2011.
- Lower household income was associated with higher infant mortality rates; there were 4 times more deaths in children in Downtown and Point Douglas community areas (low income) compared to the highest income areas of the Region.
- Lower income community residents are more likely to be diagnosed and treated for chronic diseases such as hypertension, diabetes, and ischemic heart disease.
- Lower income communities tended to have higher mental disorder and substance abuse prevalence.
- Intentional and unintentional injuries hospitalization rates for residents living in the lowest income quintile are more than double than that for those living in the highest income quintile.
- Newborns from families in lower income communities are more likely to be exposed to known risk factors prenatally and more likely to be born prematurely.
- Dental extractions are the removal of teeth, in hospital, from young children with severe tooth decay. Anesthesia beyond levels available in a dentist's office is required. Nine times (9x) more children living in the lowest income quintile of the Region require hospital-based dental extractions than those children living in the highest income quintile.

Substantial inequalities in health status remain

In 2011/12, 14.6% of families reported not having a family medical doctor.

Overall, the utilization of ambulatory care has been relatively stable.

The availability and quality of ambulatory (primary) care in the Region

has improved, but provision of primary care remains a challenge to those living in low income communities.

In 2011/12, 5.5% of Winnipeg residents and 11.1% of Churchill residents were hospitalized at least once in a year; 7% of hospitalized patients in Winnipeg and 9% of those in Churchill were readmitted within 30 days of discharge.

In 2011/12, 3% of Winnipeg residents aged 75 years and older were newly admitted to PCHs. The median waiting time was 3.5 weeks for those admitted from hospital and 7 weeks for those admitted from the community.

Gaps in healthcare access, utilization, and quality exist

Community Health Assessment AT A GLANCE by Community Area, Winnipeg RHA & Manitoba Overall

(Community Area ordered by decreasing median household income [L-R]; Churchill not included in the ranking)

Indicators	Data Years	Assiniboine South	Fort Garry	Transcona	St. Boniface	St. Vital	Seven Oaks	St. James-Assinibola	Inkster	River East	River Heights	Point Douglas	Downtown	Winnipeg	Churchill	Manitoba
General Health																
Self-Perceived Health (Very Good/Excellent)	2007-2012	69%	57%	57%	58%	64%	58%	59%	57%	51%	60%	42%	54%	58%		57%
SF-36 General Mental Health Status (High Level)	2005-2010	41%	33%	35%	37%	38%	36%	43%	44%	37%	33%	39%	44%	38%		40%
SF-36 Perfect Physical Functioning	2005-2010	54%	54%	49%	54%	52%	52%	49%	57%	51%	48%	44%	47%	50%		50%
Deaths																
Male Life Expectancy at Birth (in years)	2007-2011	81.2	81.8	79.5	80.3	79.4	78.6	78.5	77.7	78.7	79.3	71.7	74.1	78.3	81.2	77.5
Female Life Expectancy at Birth (in years)	2007-2011	83.5	85.6	83.2	84.0	83.8	82.4	82.7	82.6	83.8	84.5	77.4	78.6	82.7	79.7	82.2
Infant Mortality Rates (Crude Rates per 1,000 live births)	2007/08-2011/12													5.9		6.4
Child Mortality Rates (deaths per 100,000 children aged 1-19)	2005-2009	13.3	20.6	18.4	14.8	12.2	9.3	16.4	17.2	15.1	S	55.5	48.8	21.3		33.3
Premature Mortality Rates (per 1,000 residents under age 75)	2007-2011	2.0	1.9	2.6	2.7	2.4	2.8	2.8	3.3	2.8	2.6	5.4	4.7	2.9	3.0	3.1
Potential Years of Life Lost (years per 1,000 residents under age 75)	2007-2011	31.4	30.6	36.6	33.3	30.7	41.2	43.5	46.3	37.7	29.7	100.3	82.7	45.8	38.3	51.5
Suicide Death Rates (per 10,000 residents aged 10+)	2007-2011	1.5	0.8	0.9	1.0	0.9	1.2	1.1	1.8	1.5	1.4	4.3	2.7	1.5	S	1.7
Chronic Diseases																
Total Respiratory Diseases Prevalence (% of residents [all ages])	2011/12	9.6%	8.8%	10.0%	9.0%	10.1%	10.0%	10.9%	11.0%	9.2%	9.5%	13.2%	10.7%	9.9%	6.0%	9.5%
Hypertension Incidence Rates (cases per 100 person-years [residents aged 19+])	2011/12	2.6	3.1	3.3	2.6	2.8	3.3	3.1	3.5	2.9	2.4	3.4	3.2	3.0	3.0	3.1
Hypertension Prevalence (% of residents aged 19+)	2011/12	22.6%	23.3%	25.7%	23.1%	23.8%	27.3%	24.4%	28.5%	24.4%	22.5%	27.3%	25.1%	24.6%	30.9%	25.6%
Diabetes Incidence Rates (cases per 100 person-years [residents aged 19+])	2009/10-2011/12	0.61	0.67	0.77	0.74	0.75	0.96	0.71	1.18	0.75	0.66	1.25	1.05	0.80	0.78	0.85
Diabetes Prevalence (% of residents aged 19+)	2009/10-2011/12	7.1%	7.8%	9.4%	8.2%	8.4%	11.0%	8.4%	12.9%	8.8%	7.5%	13.2%	11.7%	9.2%	16.1%	10.0%
Lower Limb Amputation Among Residents with Diabetes (aged 19+)	2007/08-2011/12	0.5%	0.8%	1.1%	0.6%	0.7%	1.0%	1.0%	1.2%	0.9%	1.0%	1.9%	1.6%	1.0%	S	1.3%
Ischemic Heart Disease Incidence Rates (cases per 100 person-years [residents aged 19+])	2007/08-2011/12	0.50	0.61	0.72	0.62	0.64	0.78	0.61	0.74	0.67	0.64	0.90	0.65	0.66	0.91	0.67

S = data suppressed due to small numbers

■ = data unavailable

Community Area (ordered by decreasing median household income [L-R]; Churchill not included in the ranking), Winnipeg RHA & Manitoba Overall

Indicators	Data Years	Assiniboine South	Fort Garry	Transcona	St. Boniface	St. Vital	Seven Oaks	St. James-Assinibola	Inkster	River East	River Heights	Point Douglas	Downtown	Winnipeg	Churchill	Manitoba
Ischemic Heart Disease Prevalence (% of residents aged 19+)	2007/08-2011/12	6.8%	7.2%	8.2%	7.6%	7.8%	8.8%	7.8%	7.8%	7.9%	7.7%	9.6%	7.6%	7.9%	9.3%	7.9%
Heart Attack (AMI) Event Rates (per 1,000 residents aged 40+)	2007-2011	3.0	3.1	3.9	3.3	3.4	4.3	3.5	4.9	4.2	3.5	5.9	4.6	3.8	S	4.1
Stroke Event Rates (cases per 1,000 residents aged 40+)	2007-2011	2.27	2.15	2.98	2.30	2.16	3.00	2.72	2.48	2.88	2.30	4.14	2.79	2.62	S	2.66
All Invasive Cancer Incidence Rates (cases per 100,000 persons per year)	2008-2010													475.7		471.2
Dementia Prevalence (% of residents aged 55+)	2007/08-2011/12	12.2%	9.7%	10.4%	10.5%	10.5%	11.7%	11.1%	8.7%	10.3%	11.5%	12.6%	12.0%	10.9%	S	10.6%
Osteoporosis Prevalence (% of residents aged 50+)	2009/10-2011/12	10.8%	10.7%	8.9%	10.8%	10.2%	9.5%	11.0%	7.8%	9.7%	12.3%	10.1%	10.1%	10.3%	14.3%	10.4%
Mental and Substance Abuse Disorders																
Mood & Anxiety Disorders Prevalence (% of residents aged 10+)	2007/08-2011/12	24.6%	20.6%	25.6%	22.9%	23.1%	21.0%	26.8%	18.3%	22.7%	26.4%	27.4%	25.5%	24.4%	17.4%	23.3%
Substance Abuse Prevalence (% of residents aged 10+)	2007/08-2011/12	3.4%	2.6%	4.8%	4.0%	3.8%	3.6%	4.6%	4.4%	5.1%	4.4%	9.8%	7.6%	4.9%	14.6%	5.0%
Sexually Transmitted Infections (STIs)																
Chlamydia Infection Rates (per 100,000 residents)	2013	370.3	236.8	275.6	288.0	295.5	308.6	246.7	532.0	342.8	318.4	971.9	644.4	398.3		
Gonorrhea Infection Rates (per 100,000 residents)	2013	29.5	23.2	52.8	40.5	46.6	51.1	43.6	99.4	34.9	55.0	278.7	177.0	77.4		
Reproductive and Developmental Health																
Maternal Alcohol Use (% of mothers with newborns)	2011	6.6%	8.7%	9.7%	22.6%	9.4%	12.3%	7.6%	20.2%	10.5%	9.8%	25.5%	17.6%	13.6%	23.5%	13.8%
Maternal Smoking (% of mothers with newborns)	2011	6.7%	5.7%	13.0%	14.6%	11.2%	11.6%	12.9%	25.1%	16.8%	11.0%	40.7%	23.9%	16.6%	17.6%	16.7%
Mothers of Newborns with Less Than High School Education	2011	7.8%	5.1%	4.1%	7.7%	8.3%	10.8%	9.3%	23.2%	12.9%	6.4%	40.3%	30.3%	14.7%	23.5%	17.7%
Percentage of Newborns Born into Families with Financial Difficulties	2011	10.6%	6.9%	8.2%	10.1%	10.6%	10.5%	10.9%	27.6%	12.3%	8.9%	47.6%	34.7%	17.1%	5.9%	15.6%
Maternal Depression & Anxiety Disorders (% of mothers with newborns)	2011	16.2%	13.6%	21.3%	19.5%	15.6%	12.5%	17.3%	15.2%	17.3%	20.0%	21.7%	17.9%	16.9%	5.9%	17.1%
Percentage of Families who Screen Positive for 3 or More Risk Factors	2011	12.1%	11.8%	13.7%	20.6%	17.5%	17.3%	18.7%	33.0%	21.3%	16.5%	51.8%	38.4%	23.9%	41.2%	23.6%

S = data suppressed due to small numbers

■ = data unavailable

Community Area (ordered by decreasing median household income [L-R]; Churchill not included in the ranking), Winnipeg RHA & Manitoba Overall

Indicators	Data Years	Assiniboine South	Fort Garry	Transcona	St. Boniface	St. Vital	Seven Oaks	St. James-Assinibola	Inkster	River East	River Heights	Point Douglas	Downtown	Winnipeg	Churchill	Manitoba
Pregnancy and Birth Outcomes																
Teen Pregnancy (per 1,000 females aged 15 to 19)	2012/13	8.0	5.1	14.0	6.0	8.0	9.4	11.1	22.7	17.1	16.8	38.9	30.3	15.5	S	18.4
Teen Live Birth Rates (per 1,000 females aged 15 to 19)	2012/13	3.8	1.4	6.2	2.6	4.4	4.7	4.7	15.0	8.4	7.5	27.6	20.8	8.9	S	12.8
Crude Proportion of Total (Less than 37 Weeks) Preterm Births	2005/06-2008/09	7.5%	6.7%	9.0%	7.6%	7.2%	7.7%	7.6%	7.8%	7.4%	6.7%	10.1%	10.4%	8.1%		
Low Birth Weight Infants (Crude annual rate per 100 live infants per year)	2007/08-2011/12	5.2%	5.2%	5.2%	5.2%	5.7%	6.7%	5.3%	6.0%	5.0%	5.5%	7.0%	6.5%	5.8%	S	5.2%
Small—for—Gestational—Age (SGA)	2007/08-2008													8.2%		7.3%
Large—for—Gestational—Age (LGA)	2007/08-2008													13.2%		15.0%
Breastfeeding																
Breastfeeding Initiation Rates for In-Hospital Live Births	2012/13	91.4%	91.5%	88.1%	93.2%	90.2%	87.1%	92.1%	78.2%	85.5%	94.1%	73.1%	80.4%	86.3%	S	82.9%
Early Development Instrument (Readiness for School)																
Children “not ready for school” (%) in the Physical Health & Well-being Domain	2010/11	10%	10%	8%	7%	12%	10%	8%	13%	13%	7%	17%	15%	11%		11%
Children “not ready for school” (%) in the Social Competence Domain	2010/11	16.6%	7.5%	10.0%	6.4%	9.6%	11.3%	9.6%	11.5%	11.9%	11.0%	16.9%	16.7%	11.5%	16.7%	11.0%
Children “not ready for school” (%) in the Emotional Maturity Domain	2010/11	14.1%	10.0%	10.8%	6.2%	11.8%	10.8%	11.5%	6.5%	9.9%	8.0%	14.1%	13.0%	10.6%	33.3%	11.0%
Children “not ready for school” (%) in the Language & Cognitive Development Domain	2010/11	11.2%	7.8%	6.6%	8.1%	8.0%	11.9%	4.6%	14.7%	11.7%	7.0%	20.6%	17.8%	11.1%	8.3%	11.0%
Children “not ready for school” (%) in the Communication Skills & General Knowledge Domain	2010/11	10.4%	11.7%	6.9%	7.1%	12.4%	11.1%	6.7%	15.5%	13.2%	5.7%	15.8%	19.0%	11.8%		11.0%
Children “not ready for school” (%) in Two or More Domains of Development	2010/11	19.1%	12.0%	11.9%	8.7%	14.0%	14.3%	11.0%	14.5%	15.7%	10.7%	24.3%	20.7%	14.8%	16.7%	15.0%
Health Behaviors																
Current Smokers (% of respondents aged 12+)	2007-2012	10%	14%	22%	16%	17%	20%	23%	26%	20%	23%	39%	25%	19%		20%
Exposure to Second Hand Smoke at Home (% of respondents aged 12+)	2007-2012	8%	6%	13%	8%	8%	9%	12%	15%	13%	12%	26%	12%	10%		11%

S = data suppressed due to small numbers

■ = data unavailable

Community Area (ordered by decreasing median household income [L-R]; Churchill not included in the ranking), Winnipeg RHA & Manitoba Overall

Indicators	Data Years	Assiniboine South	Fort Garry	Transcona	St. Boniface	St. Vital	Seven Oaks	St. James-Assinibola	Inkster	River East	River Heights	Point Douglas	Downtown	Winnipeg	Churchill	Manitoba
Binge Drinking (one or more/month) (% of respondents aged 12+)	2007-2012	38%	31%	28%	22%	25%	25%	24%	35%	24%	22%	30%	24%	23%		24%
Physically Inactive (% of respondents aged 12+)	2007-2012	37%	48%	40%	36%	42%	41%	46%	36%	49%	36%	59%	47%	43%		45%
Fruit & Vegetable Consumption (Less than 5 times per day) (% of respondents aged 12+)	2007-2012	60%	62%	65%	59%	53%	65%	67%	69%	64%	56%	77%	66%	62%		63%
Overweight or Obesity (% of respondents aged 18+)	2007-2012	53%	53%	54%	46%	57%	54%	59%	51%	59%	53%	65%	50%	54%		56%
Immunization																
Immunization Rates for Children Aged 2 Years	2007/08	77.2%	74.8%	78.9%	77.4%	74.9%	77.6%	77.4%	69.4%	75.1%	72.5%	58.8%	61.6%	72.4%	73.7%	71.5%
Immunization Rates for Children Aged 7 Years	2007/08	71.6%	64.5%	78.5%	71.5%	70.3%	67.1%	68.4%	58.9%	73.8%	65.4%	59.2%	56.1%	66.9%	S	70.6%
Immunization Rates for Children Aged 17 Years	2007/08	60.7%	53.4%	64.2%	60.0%	61.1%	53.6%	57.9%	45.8%	60.6%	54.7%	31.4%	43.5%	54.3%	63.6%	57.2%
Adult Influenza Immunization Rates (% of residents aged 65+)	2011/12	64%	62%	58%	58%	61%	56%	62%	53%	57%	59%	51%	51%	59%	55%	57%
Cancer Screening																
Breast Cancer Screening (Mammography) Participation Rates (Females aged 50-69)	Apr 2010 to Mar 2012	56.6%	57.5%	52.0%	54.5%	56.1%	51.4%	50.1%	47.7%	53.4%	53.1%	36.6%	38.0%	63.6%	58.3%	63.4%
Cervical Cancer Screening Participation Rates (Females aged 15 & over)	Apr 2010 to Mar 2012	55.8%	57.3%	58.6%	59.5%	57.6%	50.8%	52.2%	48.9%	51.8%	56.6%	46.1%	46.1%	53.4%		
Inadequate prenatal care visits																
Crude proportion of women with inadequate prenatal care	2007/08–2008/09	3.9%	4.4%	4.2%	3.8%	4.1%	4.0%	4.1%	10.8%	6.1%	4.6%	19.1%	14.8%	7.7%		12.3%
Physician Services																
Looking for a Regular Medical Doctor (% of residents aged 12+)	2007-2012	70%	41%	67%	65%	59%	63%	51%	S	55%	51%	57%	50%	53%		56%
Use of Physicians (% of residents with at least one ambulatory visit per year to any physician)	2011/12	83.4%	81.3%	82.2%	83.4%	84.1%	80.9%	83.2%	77.8%	80.9%	82.4%	80.2%	79.1%	81.2%	72.8%	79.1%
Ambulatory Visits (avg. # of ambulatory visits to all physicians per resident per year)	2011/12	5.0	4.6	4.5	4.8	4.9	4.6	4.9	4.1	4.4	4.8	5.3	4.7	4.7	3.1	4.4
Ambulatory Consultations (avg. # of ambulatory consultation (first referral) per resident per year)	2011/12	0.35	0.32	0.31	0.34	0.34	0.29	0.33	0.26	0.30	0.34	0.28	0.28	0.31	0.29	0.28

S = data suppressed due to small numbers = data unavailable

Community Area (ordered by decreasing median household income [L-R]; Churchill not included in the ranking), Winnipeg RHA & Manitoba Overall

Indicators	Data Years	Assiniboine South	Fort Garry	Transcona	St. Boniface	St. Vital	Seven Oaks	St. James-Assinibola	Inkster	River East	River Heights	Point Douglas	Downtown	Winnipeg	Churchill	Manitoba
Majority of Care (% of residents receiving more than 50% of their ambulatory)	2010/11-2011/12	74.5%	73.5%	80.6%	72.5%	75.1%	81.5%	71.4%	77.5%	78.8%	74.2%	74.5%	73.1%	75.4%	93.4%	73.2%
Hospitalization for Ambulatory Care Sensitive Conditions (per 1,000 residents under age 75)	2011/12	2.3	2.5	3.9	2.8	3.0	3.7	3.7	4.2	3.7	3.2	7.5	7.5	4.1	28.4	6.3
Hospital Services																
Inpatient Hospitalizations (# of hospitalizations per 1,000 residents)	2011/12	59.6	60.1	66.5	61.4	62.6	63.4	65.4	64.1	70.4	64.5	92.5	85.3	65.4	200.8	87.9
Day Surgery Hospitalizations (# of hospitalizations per 1,000 residents)	2011/12	71.0	64.0	67.9	68.5	68.4	63.9	72.7	59.8	67.0	66.1	67.5	61.6	65.3	109.3	72.2
Days Used in Short Stay Hospitalizations (in stays of 0-13 days per 1,000 residents)	2011/12	158	165	184	193	182	189	199	184	214	181	272	258	199	480	247
Days Used in Long Stay Hospitalizations (14-365 days per 1,000 residents)	2011/12	522	377	380	392	397	425	459	389	424	476	743	779	477	388	568
Hospital Readmission within 30 Days of Discharge	2011/12	5.9%	6.1%	7.4%	6.6%	7.1%	6.2%	5.7%	6.5%	6.8%	7.2%	7.9%	9.0%	7.3%	8.5%	8.5%
Personal Care Homes																
Residents in Personal Care Homes (percent of residents aged 75 & older)	2010/11-2011/12	18.7%	8.8%	7.6%	7.0%	10.6%	12.6%	13.2%	9.2%	8.5%	11.7%	11.5%	17.0%	11.5%	27.8%	11.9%
Prescription Drug Use																
Antidepressant Follow-Up (% of persons prescribed a new antidepressant)	2007/08-2011/12	60.1%	57.1%	52.5%	55.8%	59.2%	57.7%	56.0%	58.3%	55.1%	58.3%	57.7%	57.9%	57.0%	S	54.5%
Asthma Care: Controller Medication Use (% of residents with asthma receiving at least one prescription for inhaled steroids)	2011/12	67.7%	67.2%	65.0%	63.1%	63.7%	61.5%	65.8%	59.6%	63.7%	66.2%	66.3%	62.1%	64.2%	82.9%	64.1%
Benzodiazepine Prescribing for Community-Dwelling Seniors (% of non-personal care home seniors aged 75 & older)	2010/11-2011/12	21.1%	18.5%	17.6%	23.0%	21.6%	19.7%	19.8%	12.6%	19.9%	20.7%	17.4%	16.6%	19.7%	S	20.5%
Other medical services																
Dental Extractions Among Young Children (avg. annual dental extraction surgeries per 1,000 children < age 6)	2007/08-2011/12	2.47	3.54	2.73	2.05	3.43	3.66	3.75	12.24	4.13	3.64	15.62	15.26	6.55	S	15.53
Diabetes Care: Regular Eye Examinations (% of residents aged 19 + with diabetes who had an eye examination)	2011/12	37.4%	39.1%	39.4%	37.3%	41.6%	35.6%	39.2%	32.6%	38.3%	38.6%	28.8%	28.7%	36.2%	49.0%	37.5%

S = data suppressed due to small numbers = data unavailable

Chapter 1: Introduction

1.1 WHAT IS COMMUNITY HEALTH ASSESSMENT?

The Community Health Assessment (CHA) is a legislated process in Manitoba undertaken to identify the strengths and needs of different communities (including Churchill) in the Winnipeg Regional Health Authority (WRHA – the Region). The CHA process is part of a strategic plan that describes the health and health needs of the community by collecting, analyzing, and using quantitative and qualitative data to:

- educate and mobilize communities;
- develop priorities;
- garner resources;
- facilitate collaborative action planning.

The aim of the CHA is to enable the improvement of the health status in the community and the quality of life among multiple sectors of the population. Our goal of providing each community with profiles is not only to build awareness, but to inspire and engage individuals and groups to take action to improve the health of their communities. The CHA report is about the WHAT? which supports regional health planning (the SO WHAT?). Questions about WHAT? include:

- What is the overall health status of residents in the Region?
- Who are the vulnerable populations (specifically, where inequalities exist)?
- What are the major health concerns in our community?
- What are the other resources we need to address the health concerns?

In this report, community is defined as “community area (CA)” or “neighborhood cluster (NC)” if data are available. There are 13 CAs in the Region, including Churchill which joined the health region in a 2012 amalgamation. Some CAs have no neighborhood clusters (e.g., Transcona) whereas others have three or four (Seven Oaks and River East).

CHA is carried out on the basis of routinely collected administrative data and surveys. However, as an ongoing process, it is impossible to cover all indicators related to health.

1.2 HOW TO USE THIS REPORT

The first part of volume 1 describes the overall demographics, health status, social determinants of health and healthcare services of the Region as well as the inequalities found across the Region’s individual communities. This part includes indicators in four domains:

- Population and community characteristics
- Health status
- Health behaviors, preventive services, and socio-economic status
- Healthcare access, utilization, and quality

In the main text of Volume 1, we discuss overall findings by:

- Examining the trend of an individual indicator over time
- Comparing indicators among communities within the Region
- Comparing the Region to Manitoba overall, other similar health regions in Canada (Peer Group A), and Canada overall when comparable data are available.

When appropriate, we discuss indicators as a class. For instance, we discuss tobacco smoking in the general population as well as special groups such as youth and pregnant women.

The following are other sections of the CHA. The CHA’s Data Sources and Methods Appendix provides detailed descriptions of indicator selection, data sources (or providers), and terms and methods related to data analysis.

Volume 2: The Community Health Assessment Indicators provides detailed descriptions of most indicators (a few indicators such as demographics are discussed in the main text only). Each indicator is introduced by up to three sections of text:

DEFINITION: States the name of the indicator, what each indicator measures, the data source for the indicator and how and when it has been measured.

KEY FINDINGS: Includes comments on the time trend (if applicable), any significant differences in geographical distribution (presented for each indicator in Volume 2 by figure(s), table and/or map, and health inequality measures (if data are available). The figures and tables of CAs and NCs are ordered according to the median income of households in the geographical area being reported on. The year(s) that rates are age- and/or sex-adjusted or standardized to are given in the definition section of each indicator.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?: In this section, we have tried to interpret the data, including its limitations and public health implications. The interpretation is based on the perspective of a broad-based advisory committee and does not reflect the Region's overall organizational opinion or policy.

Please note that Figures and Tables from Volume 2 (CHA Indicators) are referenced in Volume 1's text. The references are bracketed, in blue and begin with the letter 'A'. For example, A.3.1.1 refers to the indicator, Self-Perceived Health, in Volume 2.

Chapter 2: Population and Community Characteristics

2.1 GEOGRAPHICAL BOUNDARIES

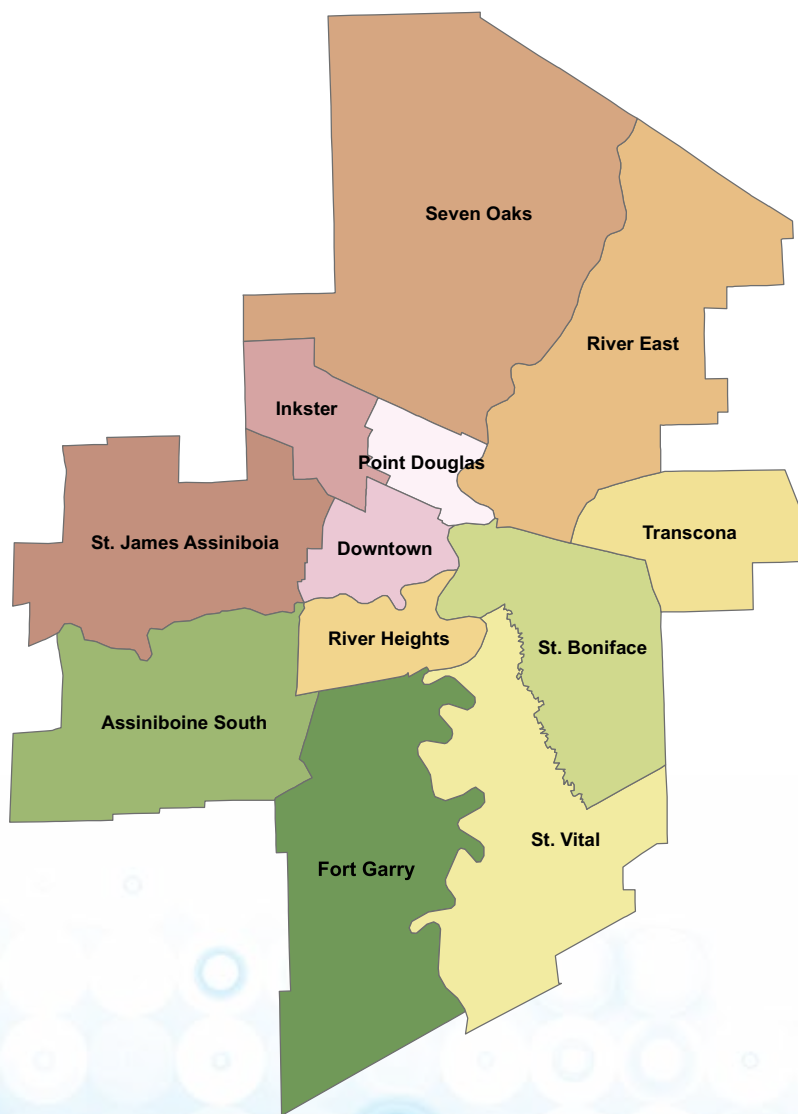
The Winnipeg Regional Health Authority (WRHA – the Region) includes the City of Winnipeg, the Rural Municipalities of East and West St. Paul, and the Town of Churchill. The Region's communities are subdivided into 13 community areas (CAs) including Churchill (see **Map 2.1.A** [Churchill not shown]) and 25 neighborhood clusters (NCs) (see **Map 2.1.B**). Detailed boundaries for each CA and NC are presented in each Community Area's profile (these are not published within the Region's Community Health Assessment).

There are 230 neighborhoods and more than 1,000 census dissemination areas in the Region. **Map 2.1.C** shows the distribution of neighborhood income (based on dissemination area income quintiles, please refer to Appendix: Data Sources and Methods for the details of income quintile calculation and assignment). However, health data are not provided at either the neighborhood or dissemination area levels.

Map 2.1.A

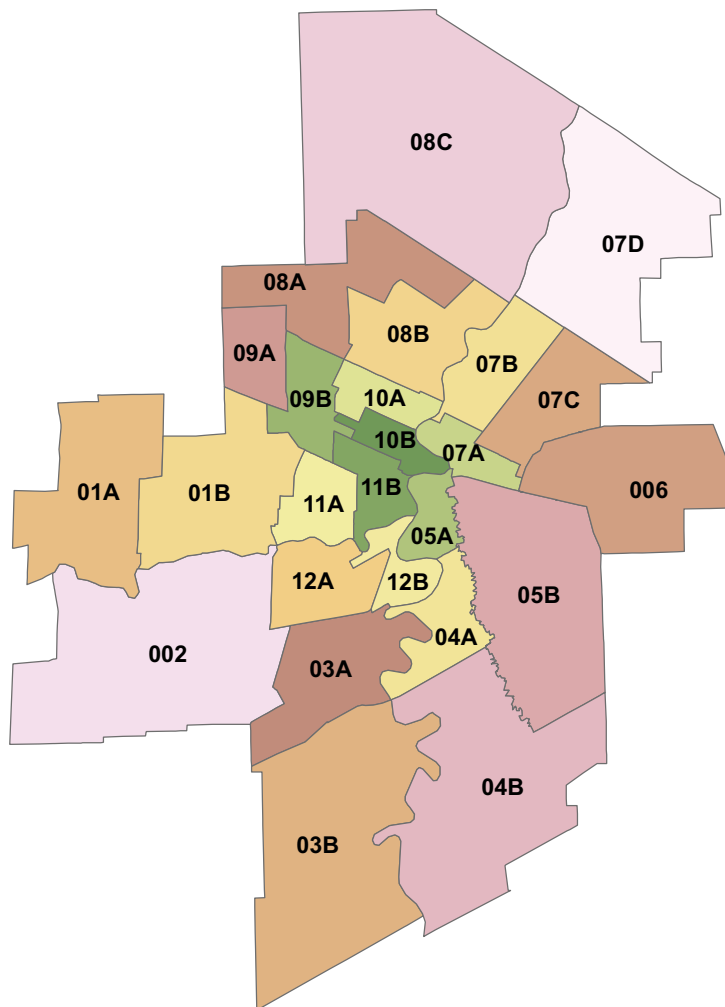
Winnipeg Regional Health Authority (the Region) Community Areas (N=12, Churchill not shown)

Note: Seven Oaks includes West St. Paul; River East includes East St. Paul



Map 2.1.B

Winnipeg Regional Health Authority (the Region) Neighborhood Clusters
(N=25, Churchill not shown)



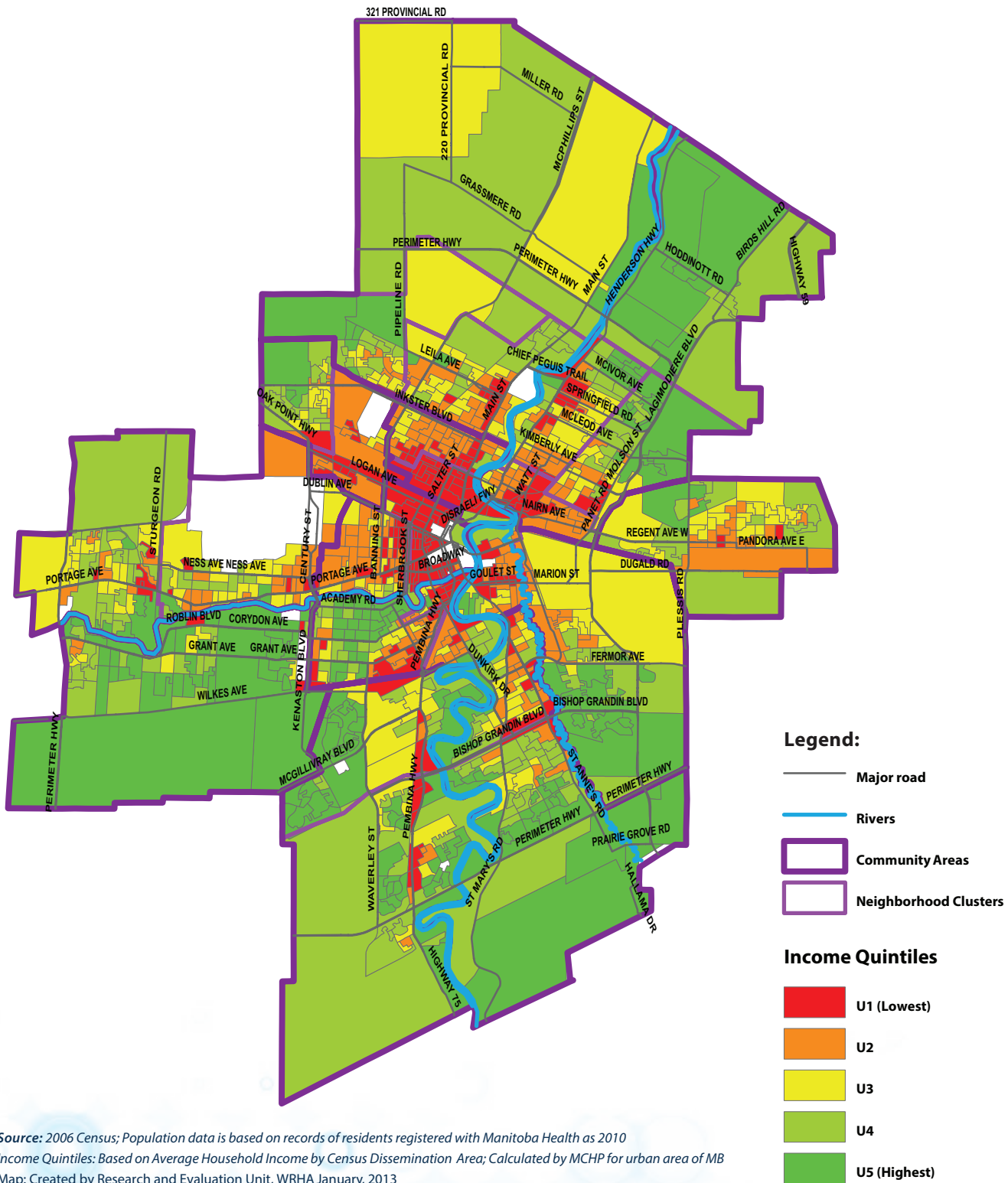
Neighborhood Cluster:

- 01A St. James-Assiniboia W
- 01B St. James-Assiniboia E
- 002 Assiniboine South
- 03A Fort Garry N
- 03B Fort Garry S
- 04A St. Vital N
- 04B St. Vital S
- 05A St. Boniface W
- 05B St. Boniface E
- 006 Transcona
- 07A River East S
- 07B River East W
- 07C River East E
- 07D River East N
- 08A Seven Oaks W
- 08B Seven Oaks E
- 08C Seven Oaks N
- 09A Inkster W
- 09B Inkster E
- 10A Point Douglas N
- 10B Point Douglas S
- 11A Downtown W
- 11B Downtown E
- 12A River Heights W
- 12B River Heights E

Map 2.1.C

Winnipeg Regional Health Authority (the Region) Community Income Distributions

(Based on average household income by census dissemination area)



2.2 DEMOGRAPHICS

According to Manitoba Health's registration files, 23% of residents in the Region are children and youth aged 19 years and younger, and 14% of the total population are seniors aged 65 years and older (see **Table 2.2.A**).

Table 2.2.A

The Winnipeg Health Region Population (as of June 1, 2013) by Age and Sex

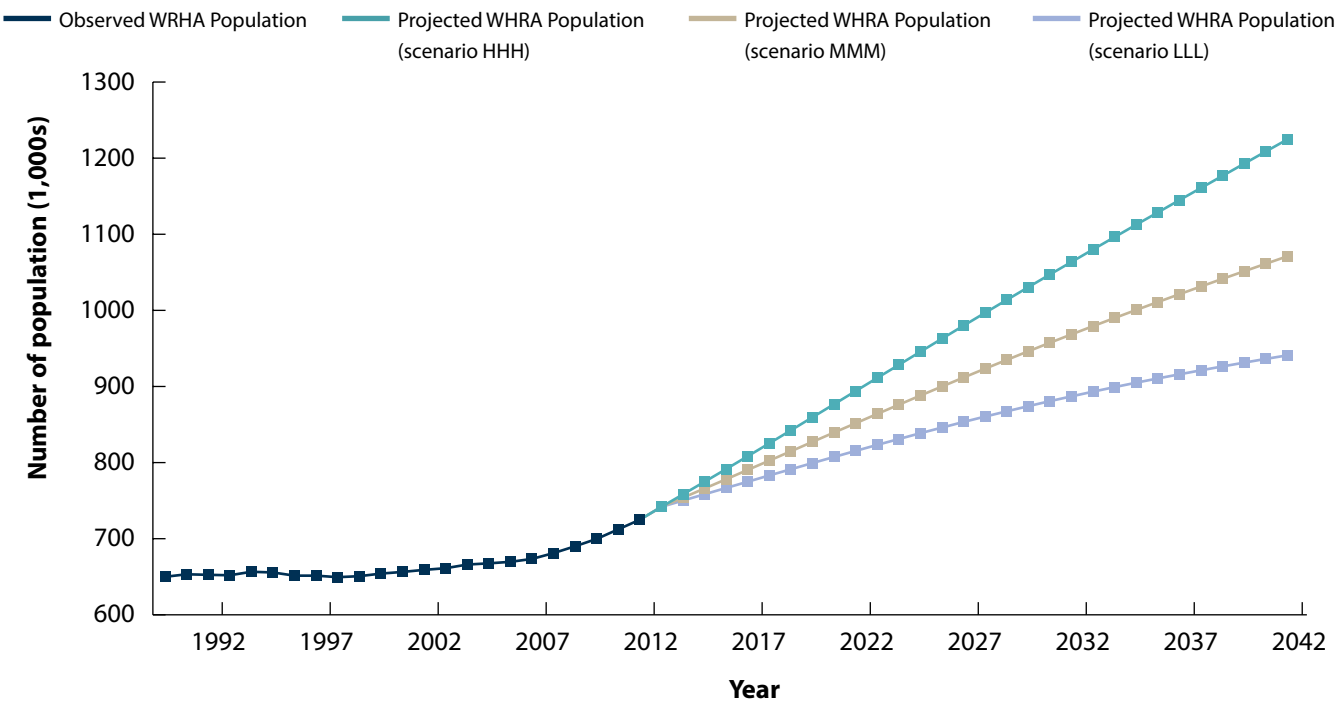
Age Group	Female		Male		Both Sexes	
	Number	% of Females	Number	% of Males	Number	% of Both Sexes
Total	373,870	100%	360,317	100%	734,187	100%
Subtotal 0-19 years	83,388	22%	87,869	24%	170,988	23%
Under 1 year	3,938	1%	4,299	1%	8,229	1%
1-4 years	16,172	4%	16,788	5%	32,895	4%
5-9 years	19,946	5%	20,684	6%	40,563	6%
10-14 years	20,159	5%	21,594	6%	41,685	6%
15-19 years	23,173	6%	24,504	7%	47,616	6%
Subtotal 20-64 years	229,552	61%	227,259	63%	456,154	62%
20-24 years	26,990	7%	27,931	8%	54,850	7%
25-29 years	27,185	7%	26,832	7%	53,937	7%
30-34 years	26,376	7%	25,973	7%	52,282	7%
35-39 years	24,838	7%	24,404	7%	49,176	7%
40-44 years	24,844	7%	24,778	7%	49,542	7%
45-49 years	25,763	7%	25,901	7%	51,594	7%
50-54 years	27,457	7%	27,449	8%	54,811	7%
55-59 years	24,670	7%	24,291	7%	48,889	7%
60-64 years	21,429	6%	19,700	5%	41,073	6%
Subtotal 65+ years	60,930	16%	45,189	13%	106,039	14%
65-69 years	17,096	5%	15,339	4%	32,404	4%
70-74 years	12,397	3%	10,418	3%	22,796	3%
75+ years	31,437	8%	19,432	5%	50,839	7%

Source: Manitoba Health Population Report 2013 (based on records of residents registered with Manitoba Health)

The Region's population has grown steadily and, according to projections by the George and Fay Yee Centre for Healthcare Innovation (2014), will continue to grow. The projected populations for the Region are 874,900 in 2025, 989,100 in 2035, and 1,070,300 in 2042, based on the assumptions behind a medium growth scenario (see **Figure 2.2.A**). By 2042, there will be a lower proportion (20%) of children and youth aged 19 years and younger, but a higher proportion (20%) of seniors aged 65 years and older, due to the population aging (see **Figure 2.2.B**).

Figure 2.2.A

WRHA Observed (1990 to 2012) and Projected (2013-2042) Population (thousands) for Three Projection Scenarios



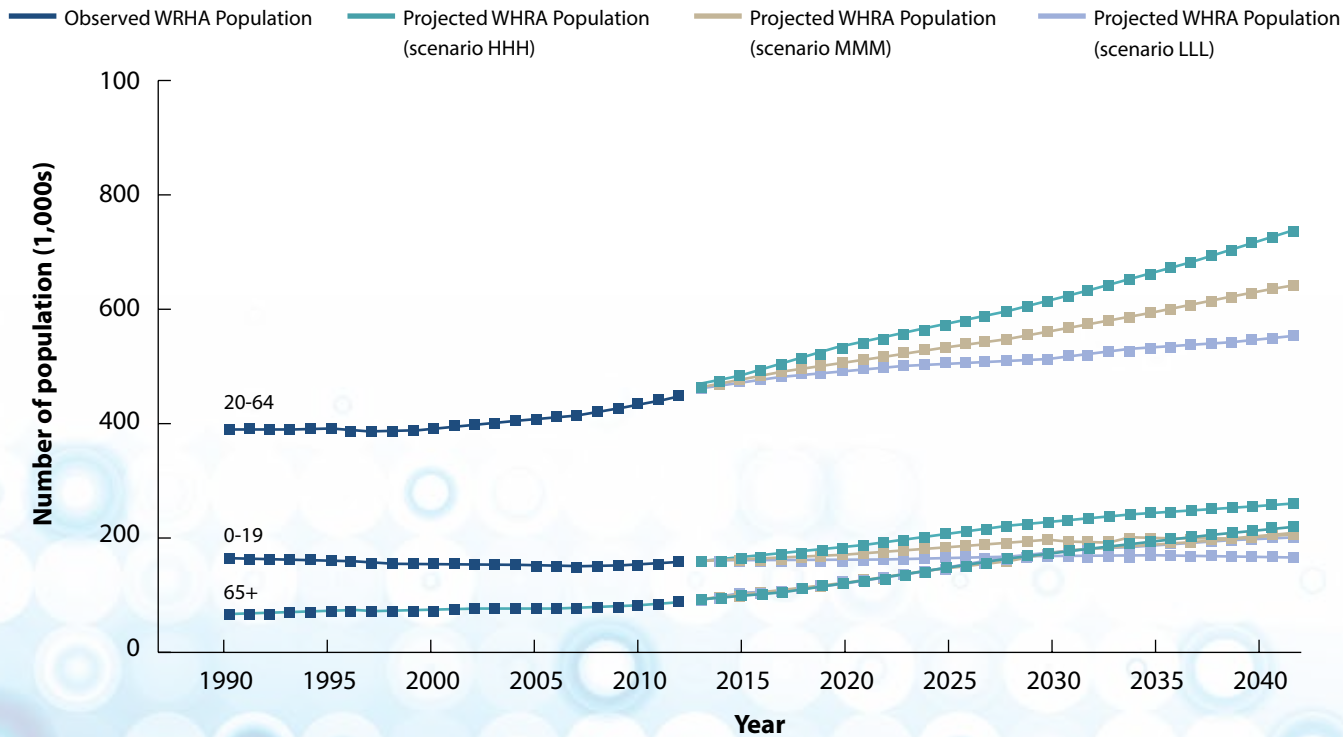
Source: The George and Fay Yee Centre for Healthcare Innovation, 2014

Note (Figure 2.2.A & 2.2.B): The population growth is projected based on different combinations of assumptions for fertility, life expectancy at birth, and net migration. Scenario HHH: high fertility, high life expectancy at birth, and high net migration; Scenario MMM: medium fertility, medium life expectancy at birth, and medium net migration; Scenario LLL: low fertility, low life expectancy at birth, and low net migration. More details in the population projection report¹

1 Lin Yan, Lisa M. Lix, Depeng Jiang, Kristine Einarson, Sané Dube. Manitoba Population Projections, 2013-2042. George & Fay Yee Centre for Healthcare Innovation, Winnipeg, 2014.

Figure 2.2.B

WRHA Observed (1990-2012) and Projected (2013-2042) by Population Age Group



Source: The George and Fay Yee Centre for Healthcare Innovation, 2014

Community areas in the Region have different population sizes, with the largest in River East and the smallest in Churchill (see **Table 2.2.B**).

Table 2.2.B

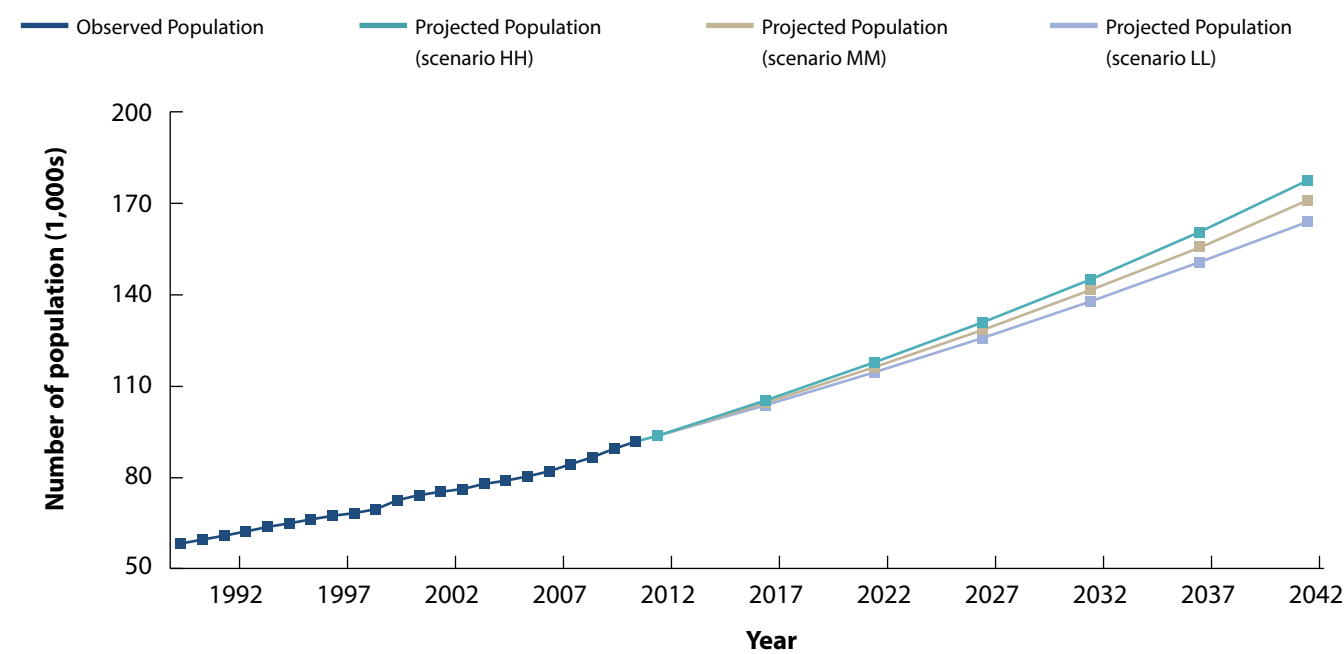
The Winnipeg Health Region Population (as of June 1, 2013) by Community Area and Neighborhood Cluster (including Churchill)

Community Area and Neighborhood Cluster	Female	Male	Both Sexes
Assiniboine South	18,193	16,935	35,128
Downtown	39,699	41,393	81,092
Downtown West	20,501	20,322	40,823
Downtown East	19,198	21,071	40,269
Fort Garry	42,366	41,085	83,451
Fort Garry North	18,694	17,450	36,144
Fort Garry South	23,672	23,635	47,307
Inkster	17,003	17,054	34,057
Inkster West	9,002	9,108	18,110
Inkster East	8,001	7,946	15,947
Point Douglas	23,387	23,710	47,097
Point Douglas North	14,990	14,936	29,926
Point Douglas South	8,397	8,774	17,171
River East	49,671	47,125	96,796
River East South	9,014	9,229	18,243
River East West	19,876	17,524	37,400
River East East	15,899	15,387	31,286
River East North	4,882	4,985	9,867
River Heights	29,694	27,053	56,747
River Heights West	18,714	17,088	35,802
River Heights East	10,980	9,965	20,945
Seven Oaks	37,490	35,997	73,487
Seven Oaks West	14,481	14,344	28,825
Seven Oaks East	20,409	19,115	39,524
Seven Oaks North	2,600	2,538	5,138
St. Boniface	29,689	28,409	58,098
St. Boniface West	8,273	7,608	15,881
St. Boniface East	21,416	20,801	42,217
St. James-Assiniboia	31,118	28,743	59,861
St. James-Assiniboia West	17,346	15,677	33,023
St. James-Assiniboia East	13,772	13,066	26,838
St. Vital	35,759	33,410	69,169
St. Vital North	14,226	13,331	27,557
St. Vital South	21,533	20,079	41,612
Transcona	19,308	18,890	38,198
Churchill	493	513	1,006
Total	373,870	360,317	734,187

Source: Manitoba Health Population Report 2013 (based on records of residents registered with Manitoba Health)

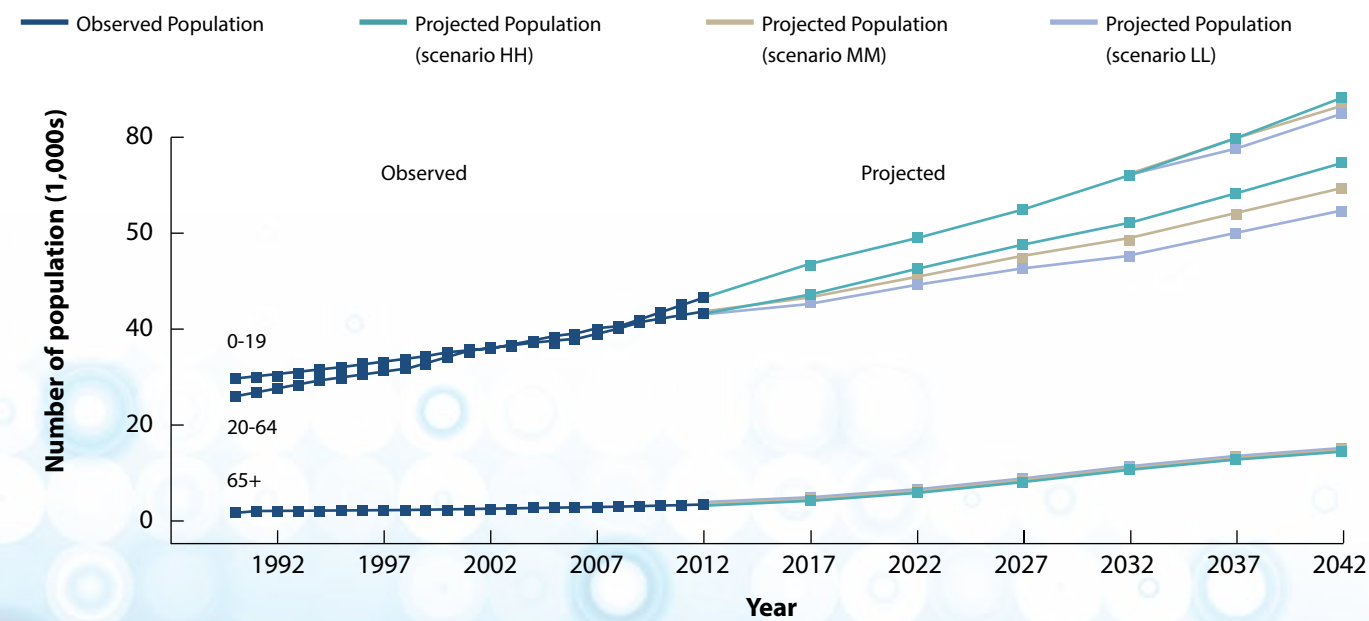
Projections on indigenous populations are not available for the Region. Manitoba's First Nations population is projected to increase under all investigated scenarios over the projection period (See **Figures 2.2.C** and **2.2.D**). This growth will range from 93,200 in 2012 to between 164,300 under the LL projection scenario and 178,100 under the HH projection scenario in 2042.

Figure 2.2.C
Observed (1990-2012) and Projected (2013-2042) Manitoba First Nations Population
(Scenario HH: high fertility and high life expectancy at birth; Scenario MM: medium fertility and medium life expectancy at birth; Scenario LL: low fertility and low life expectancy at birth)



Source: The George and Fay Yee Centre for Healthcare Innovation, 2014

Figure 2.2.D
Observed (1990-2012) and Projected (2013-2042) Manitoba First Nations Population by Age
(Scenario HH: high fertility and high life expectancy at birth; Scenario MM: medium fertility and medium life expectancy at birth; Scenario LL: low fertility and low life expectancy at birth)



Source: The George and Fay Yee Centre for Healthcare Innovation, 2014

Chapter 3: Health Status Across The Winnipeg Health Region

In this section, health status of the Winnipeg Regional Health Authority (WRHA – the Region) residents is described using measures for general health (e.g., self-perceived health), mortality (e.g., life expectancy), and non-fatal health outcomes (e.g., hypertension and mental illness). This chapter is organized into the following sections:

3.1 GENERAL HEALTH

3.2 DEATHS

3.3 CHRONIC DISEASES

3.4 MENTAL HEALTH AND SUBSTANCE ABUSE

3.5 INJURIES

3.6 SEXUALLY TRANSMITTED INFECTIONS

3.7 REPRODUCTIVE AND DEVELOPMENTAL HEALTH

Whenever data were available and comparable, we compare between the Region and Manitoba, Canadian health regions similar to the Region (Peer Group A, see Appendix: Data Sources and Methods for a list of health regions in this group), and Canada. Peer Group A represents large urban health regions in Canada.

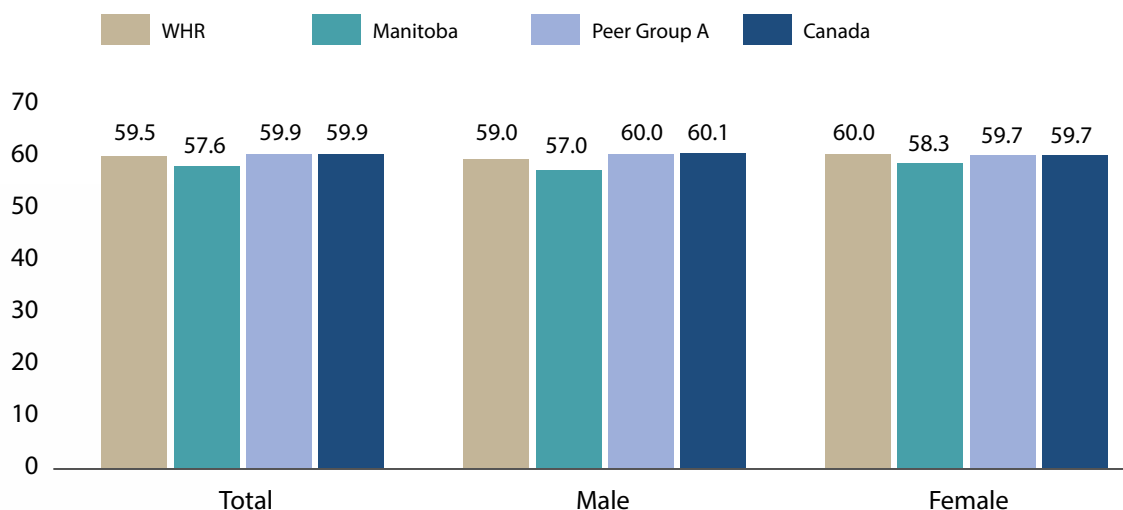
3.1 GENERAL HEALTH

3.1.1 SELF-PERCEIVED HEALTH

- 58% of the Region's residents reported very good or excellent self-perceived health status in 2007-2012. The rate has been relatively stable over time. (**Figures & Tables A3.1.1**).
- Within the Region, there was significant geographical variation, with the highest percentage (70%) reporting very good or excellent health in Assiniboine South community area and the lowest percentage (43%) in Point Douglas community area (**Figures A3.1.1**). No data are reported on Churchill.
- Residents living in high household income areas were more likely to report very good or excellent health (**Table A3.1.1**).
- The percentage (very good/excellent health) for the Region was almost identical to the average for the health regions in Peer Group A (see **Figure 3.1.A** below).

Figure 3.1.A

Self-Perceived Health (very good or excellent %, age-standardized) Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada



Source: Canadian Community Health Survey, 2011/12

Community Health Advisory Committee members expressed an interest in two additional measures from the Canadian Community Health Survey (2007-12):

- 19% of Winnipeg residents aged 15 years and older reported a high level of life stress.
- 23% of residents aged 15-75 years reported a high level of work stress in the past 12 months.

3.1.2 SF-36 GENERAL PHYSICAL FUNCTION AND MENTAL HEALTH

- The SF-36 is a survey tool used to measure a person's perceived health status. It scores general physical function and mental health from 0 to 100 (higher is better).
- Half (50%) of the Region's residents aged 12 years and older indicated that they had perfect physical functioning (a score of 100). The Region's percentage for perfect physical functioning varied from 44% in Point Douglas community area to 57% in the Inkster community area (**Figure A3.1.2.b1**).
- However, only 38% of the Region's residents reported a high score (92-100) on mental health. The percentage for good mental health ranged from 26% in St. Boniface West to 50% in Seven Oaks North (**Figure A3.1.2.a2**).
- No data on these measures are reported for Churchill because of small sample sizes.

3.2 DEATHS

3.2.1 TOTAL DEATHS

TOTAL MORTALITY

- The total mortality (death) rate in the Region decreased slightly over the past 5 years.
- The rate varied across the Region in 2007-2011, with the highest death rates in the Point Douglas South neighborhood cluster (17.2 deaths per 1,000 residents) and the lowest in Inkster West neighborhood cluster (4.9 deaths per 1,000 residents) in 2007-2011.
- The unexpected high total mortality rate in Seven Oaks North might be due to the large number of senior residents living in the Middlechurch Personal Care Home.¹
- The large decrease in mortality in Churchill is not statistically significant and is likely due to the natural variation seen in such a small population (n=1,006 in 2013)
- Lower household income was associated with higher total mortality rates in urban settings (Winnipeg and Brandon) in the province.

TOP 10 CAUSES OF MORTALITY

In 2007-2011, the top 3 and 10 causes of mortality (see below) accounted for 67% and 96% of all deaths in the Region, respectively (**Figure & Table A3.2.5.a1**).

- Circulatory system
- Cancer
- Respiratory system
- Injury & poisoning
- Mental illness
- Endocrine & metabolic
- Digestive system
- Nervous system
- Genitourinary & Breast
- Infectious diseases

However, cancer is the number one cause of death among those who die before age 75 years.

¹ Fransoo R, Martens P, The Need To Know Team, Prior H, Burchill C, Koseva I, Bailly A, Allegro E. The 2013 RHA Indicators Atlas. Winnipeg, MB. Manitoba Centre for Health Policy, October 2013.

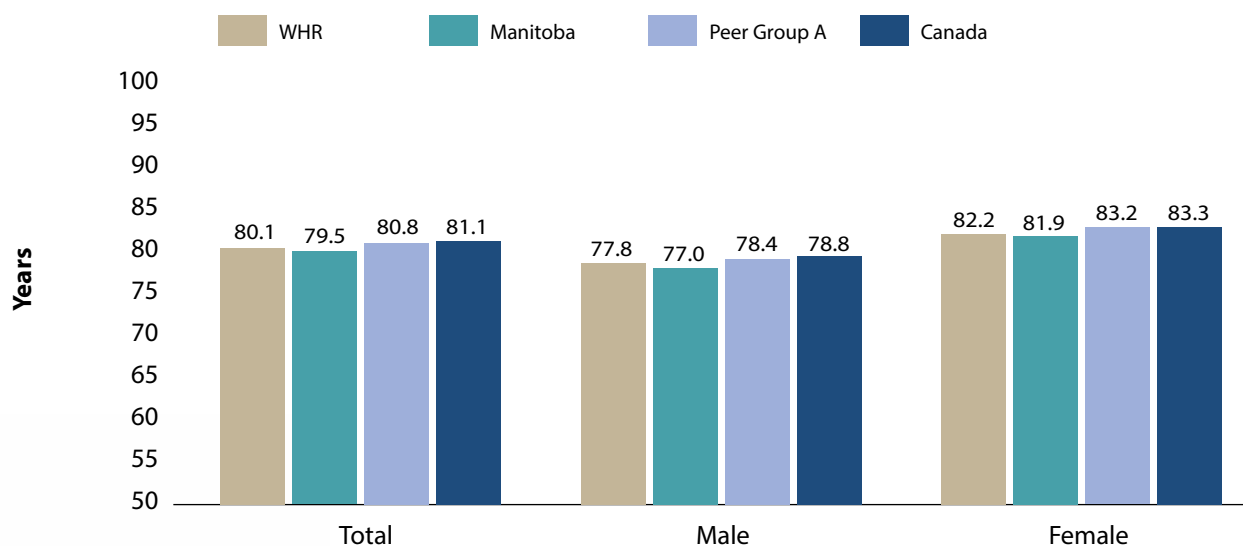
LIFE EXPECTANCY (LE) AT BIRTH

Life expectancy (LE) at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups in a given year – children and adolescents, adults and elderly persons. LE at birth is a summary measure of mortality only and measures quantity rather than quality of life. LE continues to be a valuable measure of population health status because: (a) it is not affected by population age-structure thus is comparable between subgroups of the population or over time for the same population; (b) it is expressed as years of life and is easy to interpret.¹ In 2010, Canada ranked 5th among 15 comparator countries² for LE at birth.³

- In the Region, LE at birth has increased by 1.3 years among females (from 81.4 years during 1991-1995 to 82.7 years during 2007-2011) and by almost 3 years among males (from 75.6 years during 1991-1995 to 78.3 years during 2007-2011). (**Figures A3.2.1.a1/b1**).
- Female LE at birth is about 5 years higher than male LE at birth and the difference has narrowed over the past 20 years.
- LE at birth for both sexes varies across the Region, with central areas (e.g., Downtown and Point Douglas) of Winnipeg having lower LEs at birth than other areas in the Region and the overall Winnipeg average. Point Douglas South had the lowest female LE at birth (70.9 years, 2007-2011) and male LE at birth (66.7 years, 2007-2011). (**Figures A3.2.1.a3/b3**)
- Overall, higher household income was associated with greater LE at birth in both males and females. LE at birth (males and females) for the highest income NC (River East North) was about 20% higher than that for the lowest income NC (Point Douglas South). During 2002-2006, there was a nearly 17-year difference among females and a 13.6-year difference among males between these two NCs. While the gap for females has since been relatively stable, the gap for males increased to 15.6 years in 2007-2011. (**Tables A3.2.1.a1/b1**)
- LE at birth was slightly lower than that for health regions in Peer Group A and the Canadian population in 2007-09 (see **Figure 3.2.A**).

Figure 3.2.A

Life Expectancy at Birth Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada, 2007-09



Source: Public Health Agency of Canada

¹ Molla MT, Madans JH, Wagener DK, Crimmins EM. Summary measures of population health: reports of findings on methodological and data issues. National Center for Health Statistics. Hyattsville, Maryland, 2003.

² Including Canada, Kuwait, United States, Switzerland, Netherlands, Ireland, Iceland, Australia, Austria, Sweden, Denmark, Belgium, United Kingdom, Germany, Finland.

³ Institute for Health Metrics and Evaluation. Global burden of disease country profile-Canada. Seattle, WA, 2013.

3.2.2 INFANT MORTALITY

- During 2011/12, nearly 6 out of every 1,000 newborns in the Region died within 1 year, similar to the provincial average (**Figure A3.2.2.a2**).
- During 2001/02-2008/09, while infant mortality rates for Downtown (7.4 deaths per 1,000) and Point Douglas (7.3 deaths per 1,000) community areas were significantly higher than the Winnipeg average, the rate for St. Vital (1.8 deaths per 1,000) was significantly lower.¹
- Lower household income was associated with higher infant mortality rates.
- Infant mortality rate is not reported for Churchill.

3.2.3 CHILD MORTALITY

- In 2005-2009, age- and sex-adjusted mortality rate in children aged 1-19 years was 21.3 deaths per 100,000 children, slightly lower than that in 2000-2004 (24.9 deaths per 100,000) (**Figure A3.2.3.a1**).
- In 2005-2009, age- and sex-adjusted mortality rates in children aged 1-19 years ranged from 9.3 deaths per 100,000 in Seven Oaks community area to 55.5 deaths per 100,000 children in Point Douglas community area. (**Figure A2.3.3.a2**)
- In 2005-2009, injuries, neoplasms, neurological diseases, congenital abnormalities, and respiratory diseases accounted for 61.0%, 7.0%, 5.8%, 4.0%, and 3.5%, respectively, of child deaths in Manitoba.¹
- Lower household income was associated with higher child mortality rates and the inequality has increased over time. (**Figure A3.2.3.a2 & Table A3.2.3.a1**)
- Injuries, neoplasms, neurological disease, congenital abnormalities, and respiratory disease are the top five causes of mortality among children (under 19 years).¹
- Child mortality rate is not reported for Churchill.

3.2.4 PREMATURE DEATHS (DYING PRIOR TO AGE 75)

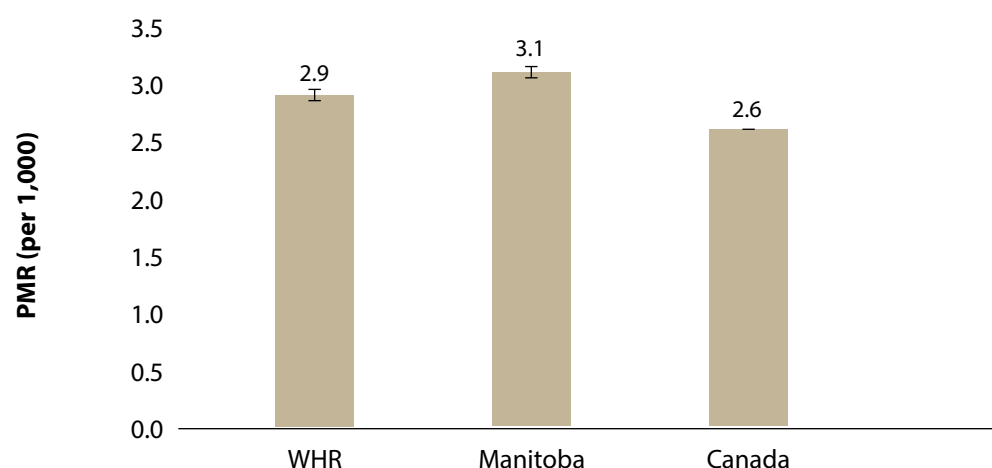
PREMATURE MORTALITY RATE (PMR)

- PMR for the Region has declined over time from 3.5 deaths per 1,000 in 1991-1995 to 2.9 per 1,000 in 2007-2011 (**Figure A3.2.4.a1**).
- Residents living in central areas of the Region were more likely to die before the age of 75 years: rates in Point Douglas South (8.3 deaths per 1,000) and Downtown East (6.1 deaths per 1,000 residents) were more than double that of the Winnipeg average in 2007-2011 (2.9 deaths per 1,000 residents). (**Figure A3.2.4.a2**)
- Household income was inversely associated with PMR: (a) PMR in the lowest income NC (Point Douglas S) was 3.95-fold higher than that of highest income NC (River East N) in 2002-2006 and 5.44-fold higher in 2007-2011; (b) PMR in the lowest income quintile areas was 3-fold higher than that in the highest income quintile areas. (**Table A3.2.4.a1**)
- In 2011/12, age and sex standardized PMR in the Region was higher than the national average (see **Figure 3.2.B**).

¹ Brownell M, Chartier M, Santos R, Ekuma O, Au W, Sarkar J, MacWilliam L, Burland E, Koseva I, Guenette W. *How Are Manitoba's Children Doing? Winnipeg, MB. Manitoba Centre for Health Policy, October 2012.*

Figure 3.2.B

Premature Mortality Rates Across The Winnipeg Health Region (WHR), Manitoba, and Canada, 2011-12



Source: Statistics Canada

TOP 10 CAUSES OF PREMATURE DEATHS

In 2007-2011, the top 3 and 10 causes accounted for 73% and 95% of all premature deaths, respectively ([Figure A3.2.4.c1](#)).

- Cancer
- Diseases of the circulatory system
- External causes of morbidity and mortality
- Diseases of the digestive system
- Diseases of the respiratory system
- Endocrine, nutritional and metabolic diseases
- Diseases of the nervous system
- Certain infectious and parasitic diseases
- Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
- Mental and behavioral disorders

POTENTIAL YEARS OF LIFE LOST (PYLL)

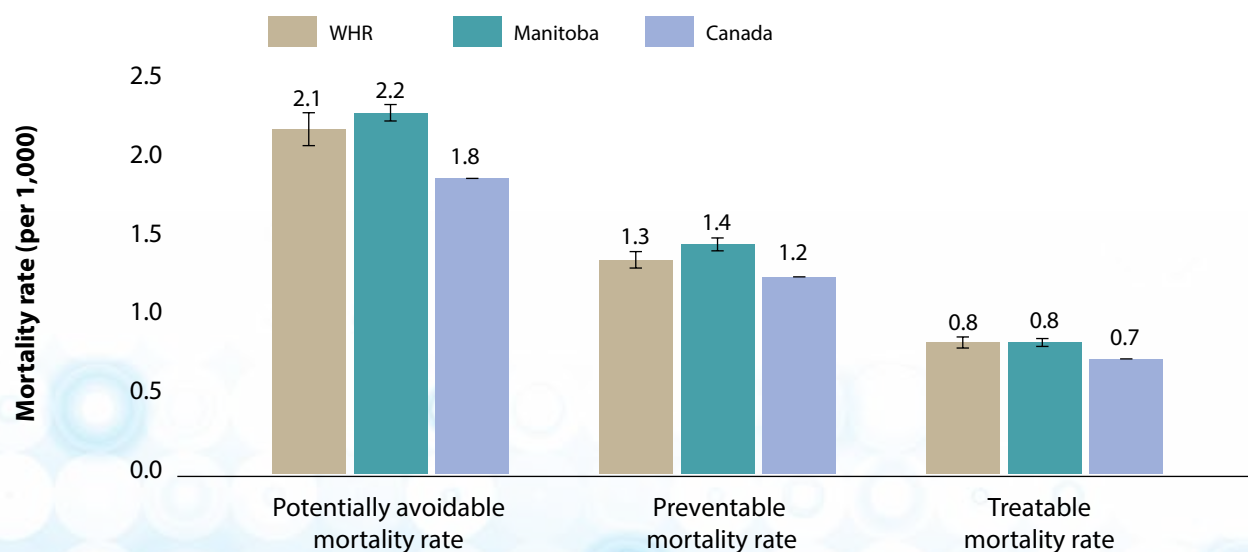
- PYLL extends the notion of premature mortality (PMR) and is a sum of years lost due to early death (dying prior to age 75 years).
- Sex- and age-adjusted PYLLs have declined slightly, from 51.1 years per 1,000 residents in 1991-95 to 45.8 years per 1,000 residents in 2007-11. ([Figure A3.2.4.b1](#))
- There was significant variation in PYLL across the Region, with PYLLs for Downtown East (104.8 years per 1,000 residents) and Point Douglas South (175.8 years per 1,000 residents) neighborhood clusters being more than twice the Region's average (45.8 years per 1,000 residents). ([Figure A3.2.4.b2](#))
- Lower household income was associated greater PYLL--there was a 60-year difference between the lowest and the highest income areas in 2007-2011. ([Table A3.2.4.b1](#))
- During a series of community engagement exercises (by paired Community Areas) in the fall of 2013, communities expressed an interest in knowing PYLLs due to cancer, respiratory disease, and circulatory disease.
 - PYLL due to cancer decreased slightly from 16.5 years per 1,000 residents in 2002/03-2006/07 to 15.3 years per 1,000 residents in 2007/08-2011/12.
 - PYLL due to respiratory disease have been stable since 2002/03-2006/07 at about 2 years per 1,000 residents.
 - PYLL due to circulatory disease decreased slightly from 9.6 years per 1,000 residents in 2002/03-2006/07 to 8.8 years per 1,000 residents in 2007/08-2011/12.

NEW PREMATURE MORTALITY INDICATORS:^{1,2}

- **Potentially Avoidable Death (Mortality)**
 - Potentially avoidable mortality measures the probability of premature deaths that could potentially have been avoided through all levels of prevention (primary, secondary, tertiary);
 - Potentially avoidable deaths accounted for 72% of all premature deaths in Canada in 2008;
 - Circulatory diseases, neoplasms, and injuries accounted for more than 70% of all potentially avoidable deaths;
 - The number one cause of potentially avoidable deaths shifted from circulatory diseases in 1979 to neoplasms in 2008;
 - Potentially avoidable mortality rates in Canada and Manitoba have been decreasing since 1979;
 - During 2007-09, the potentially avoidable mortality rate in the Region (2.1 deaths per 1,000 residents) was lower than that for the province (2.2 deaths per 1,000 residents) but higher than the national average (1.8 deaths per 1,000 population).
- **Death (Mortality) From Preventable Causes**
 - This is a subset of potentially avoidable deaths and includes deaths from diseases with well-established and significant modifiable risk factors (10 factors: tobacco use, high blood pressure, overweight and obesity, physical inactivity, high blood glucose, high cholesterol, low fruit and vegetable intake, exposure to urban air pollution, alcohol use, and occupational risk factors);
 - In 2008, preventable mortality accounted for 65% of all potentially avoidable deaths;
 - Age-standardized preventable mortality rate has been declining in Canada;
 - During 2007-09, preventable mortality rate in the Region (1.3 deaths per 1,000 residents) was lower than the provincial average in MB (1.4 deaths per 1,000 residents) but higher than the national average (1.2 deaths per 1,000 population).
- **Death (Mortality) From Treatable Diseases**
 - This is also a subset of potentially avoidable deaths and includes premature deaths that potentially could be averted by screening, early detection and successful treatment with timely and effective health care interventions;
 - In 2008, treatable mortality accounted for 35% of all potentially avoidable deaths;
 - Age-standardized treatable mortality rate has been declining in Canada;
 - During 2007-09, the treatable mortality rate in the Region (0.8 deaths per 1,000 residents) was almost identical to the provincial average in Manitoba (0.8 deaths per 1,000 residents) but higher than the national average (0.7 deaths per 1,000 residents), as shown in **Figure 3.2.C**.

Figure 3.2.C

Potentially Avoidable Mortality Rates Across The Winnipeg Health Region (WHR), Manitoba, and Canada, 2007-09



Source: Statistics Canada

¹ Canadian Institute for Health Information. Health Indicators 2012. Ottawa, 2012.

² Canadian Institute for Health Information. Health Indicators 2013. Ottawa, 2013.

3.2.5 DISEASE-SPECIFIC MORTALITY

CANCER DEATHS

- In 2008-2010, age-standardized overall invasive cancer mortality was 203.3 per 100,000 in the Region; the mortality rate has been stable (**Figure A3.2.5.b1/b2 & Table A3.2.5.b1**).
- Age-standardized overall cancer mortality rates for both female and male Canadians have been decreasing since 1985.¹
- Of the four most common cancers (prostate, breast, colorectal, and lung), lung and colorectal cancers had relatively lower incidence rates but higher mortality rates. Age-standardized 5-year relative survival rate were greater than 80% for prostate (91.6%) and female breast cancer (85.4%), 60.3% for colorectal cancer, and only 22.8% for lung cancer.

3.2.6 INJURY DEATHS

- Injury is the fourth ranked cause of death in the Region, and the contribution of injury deaths to total deaths increased from 5.9% in 2002-06 to 6.5% in 2007-12.²
- During 2000-2012, age-standardized injury mortality rate was 48.9 deaths per 100,000 residents; unintentional injury mortality rate remained stable around 30 deaths per 100,000 residents; and similarly intentional injury mortality rate remained around 15 deaths per 100,000 residents.² (**Figures A3.2.6.a1/a3**)
- During 2000-2012, the leading cause of injury related deaths in the Region were falls (12.2 deaths per 100,000 residents), suicides (10.9 deaths per 100,000 residents), poisoning (6.0 deaths per 100,000 residents), motor vehicle accidents (4.7 deaths per 100,000 residents), and assaults (3.5 deaths per 100,000 residents).
- In 2012, age-standardized suicide mortality rates were 8.9, 13.7, and 11.2 per 100,000 for females, males, and both sexes in the Region.²
- Suicide mortality rate was highest among those aged 45-54 years (16.5 deaths per 100,000 in the Region during 2000-2012). Suicide mortality rate varied across the Region, with the highest rates in Point Douglas (4.3 per 10,000) and Downtown (2.7 per 10,000) and the lowest in Fort Garry (0.8 per 10,000) in 2007-2011.
- Suicide death rate in the Region is similar to that for other health regions in Canada and the national average.³

Special notes to mortality measures

Mortality is only one aspect of a population's health. Summary measures of population health should combine information on both mortality and morbidity (non-fatal health outcomes) and include two categories: health expectancy and health gap.⁴

Health expectancy divides expected life into healthy and unhealthy years, i.e., life expectancy weighted for health status. It is the average number of years a person is expected to live if current patterns of mortality and morbidity continue to apply. One commonly used health expectancy measures is health-adjusted life expectancy (HALE). HALE is calculated by using the health utility index (HUI) to weigh years lived in good health. In 2010, Canada ranked the 4th among 15 comparator countries⁵ for HALE.⁶ HALEs were 70.2 years for females and 66.7 years for males in Manitoba in 2001 and similar to the Canadian averages (70.8 years for females and 68.3 years for males).⁷ The approximately 10-year difference between LE and HALE in Manitoba reflects the impact of non-fatal health outcomes on expected life. No data are available at the regional level, but it would be reasonable to assume a 10-year difference between LE and HALE in the Region.

Health gap is the lost life expectancy weighted by health status. Disability-adjusted life year (DALY) measures both quantity and quality of life in a population and includes two dimensions: years lost due to disability (YLDs) and years of life lost (YLLs). DALY is an indicator used by World Health Organization and countries around the world to measure disease burden. In 2010, Canada ranked the 3rd lowest for age-standardized YLD rate and the 8th for age-standardized YLL.⁶

1 Canadian Cancer Society. *Canadian Cancer Statistics 2014*. Ottawa, 2014.

2 Manitoba Health. *Injuries Report: WRHA 2000-2012*. Winnipeg, 2014.

3 Canadian Institute for Health Information. *Health Indicators 2013*. Ottawa, 2013.

4 Molla MT, Madans JH, Wagener DK, Crimmins EM. *Summary measures of population health: Report of findings on methodological and data issues*. National Centre for Health Statistics. Hyattsville, Maryland. 2003.

5 Including Canada, Kuwait, United States, Switzerland, Netherlands, Ireland, Iceland, Australia, Austria, Sweden, Denmark, Belgium, United Kingdom, Germany, Finland.

6 Institute for Health Metrics and Evaluation. *Global burden of disease country profile-Canada*. Seattle, WA, 2013

7 Public Health Agency of Canada. *Health-adjusted life expectancy in Canada: 2012*. Ottawa, Ontario, 2012.

3.3 CHRONIC DISEASES

3.3.1 TOTAL RESPIRATORY DISEASES (TRD)

- This indicator measures the treatment prevalence of several common respiratory diseases including asthma, chronic/acute bronchitis, acute bronchiolitis, emphysema, and chronic airway obstruction. This should not be compared to prevalence or treatment prevalence of individual respiratory diseases reported elsewhere.
- Total respiratory diseases prevalence in the Region has declined over time, from 13.1% in 2000/01 to 9.9% in 2011/12 (**Figures & Table A3.3.1**).
- TRD prevalence rates varied across community areas (highest rates were in Point Douglas and lowest rates were in Churchill) and neighborhood clusters (highest rates were in Point Douglas South and lowest rates were in River East North). (**Figures A3.3.1.a3**)
- TRD prevalence was inversely associated with income.

3.3.2 HYPERTENSION

- Each year, about 8,500 residents aged 19 years and older are newly diagnosed (incident cases) with hypertension or high blood pressure. Hypertension incidence rate decreased slightly from 3.3 cases per 100 person-years in 2006/07 to 3.0 cases per 100 person-years in 2011/12 (**Figure A3.3.2.a1**).
- However, hypertension prevalence increased from 20% in 1993-95 to 25% in 2011-12 (**Figure A3.3.2.b1**). This might reflect the lower mortality and longer life of persons living with hypertension as shown in the Canadian Chronic Disease Surveillance System.¹
- Both hypertension incidence and prevalence varied across the Region.
 - Point Douglas South had the highest hypertension incidence (3.8 cases per 100 person-years) and River Height West had the lowest (2.4 cases per 100 person-years) in 2011/12 (**Figure A3.3.2.b3**);
 - Churchill had the highest hypertension prevalence for the periods of 2006/07 and 2011/12; communities in the northwest sector of the Region tended to have higher hypertension prevalence; overall, community areas in the southern sector of the Region tended to have lower hypertension prevalence.
- There were some income-related inequalities in hypertension incidence and prevalence. The lowest income NC had 39% higher incidence and 33% higher prevalence than the highest income NC in 2011/12. The inequalities remained relatively stable during 2006/07 to 2011/12. (**Tables A3.3.2.a1/b1**)
- Hypertension incidence and prevalence rates in the Region were similar to that for the total Canadian population aged 20 years and older. Data from the Canadian Chronic Disease Surveillance System indicated that hypertension incidence among residents aged 20 years and older remained stable during the period of 1998/99-2006/07.¹

3.3.3 DIABETES

- Each year, nearly 10,000 residents aged 19 years and older are newly diagnosed (incident cases) with diabetes. Diabetes incidence remained stable (0.86 cases per 100 person-years in 2004/05-2006/07 and 0.80 cases per 100 person-years in 2009/10-2011/12) (**Figure A3.3.3.a1**). Diabetes incidence in Churchill decreased significantly from 2.36 cases per 100 person-years in 2004/05 to 0.78 cases per 100 persons-years in 2011/12. This might be partially due to variations related to small numbers of residents, but it is important to explore other possible contributors. (**Figure A3.3.3.a2**)
- Diabetes prevalence increased over time in the Region (5.8% in 1998/99-2000/01 and 9.2% in 2009/10-2011/12) (**Figure A3.3.3.b1**). Diabetes prevalence in Churchill was consistently higher than that in all other community areas in the Region.
- As for hypertension, the different time trends in diabetes incidence and prevalence may reflect longer life of diabetic patients. (**Figure A3.3.3.a1/b1**)
- There were nearly 3-fold differences in diabetes incidence and prevalence across neighborhood clusters (NCs): (**Figures A3.3.3.a3/b3**)

¹ Public Health Agency of Canada. Report from the Canadian Chronic Disease Surveillance System: Hypertension in Canada, 2010.

- Point Douglas South had the highest incidence (1.50 cases per 100 person-years 2009/10-2011/12) and prevalence (15.8% between 2009/10-2011/12);
- River East North had the lowest incidence (0.53 cases per 100 person-years 2009/10-2011/12) and prevalence (5.8% between 2009/10-2011/12).
- Residents living in lower income communities tended to have higher diabetes incidence and prevalence: diabetes incidence and prevalence for residents living in the lowest income quintile was almost double that for residents living in the highest income quintile communities
- Individuals with diabetes are more likely to be hospitalized with non-traumatic lower limb amputations, cardiovascular diseases, and end-stage renal diseases than those without diabetes.
 - 1.6% of adults with diabetes in the Region were hospitalized with lower limb amputations during 1998/99-2002/03 (**Figure A3.3.3.c2**);
 - The percentage decreased to 1.0% in 2007/08-2011/12, but was still higher than the national average (0.2% in 2006/07) according to the National Diabetes Surveillance System;¹
 - Residents living in lower income neighborhoods tended to have higher lower limb amputation rates in the Region. (**Figure A3.3.3.c3 & Table A3.3.3.c1**)
- Eye examination is an important step for prevention and early detection of diabetic eye problems which may lead to visual loss or blindness. However, less than 40% of adult diabetic patients (aged 19 years and older) had an eye examination in the past year.

3.3.4 CARDIOVASCULAR DISEASES (CVDs)

- CVDs are chronic diseases caused by an interaction of genetics, health behaviors, and the environment. Ischemic heart disease (IHD), acute myocardial infarction (AMI or heart attack), and cerebrovascular disease (or stroke) are among the most common CVDs.
- All CVD event rates have declined overtime in the Region:
 - IHD incidence rates were 0.79 cases per 100 person-years in 2002/03-2006/07 and 0.67 cases per 100 person-years in 2007/08-2011/12 (**Figure A3.3.4.a1**);
 - IHD prevalence rates were 9.3% in 1996/97-2000/01 and 7.9% in 2007/08-2011/12 (**Figure A3.3.4.b1**);
 - AMI (heart attack) event rate declined from 5.3 events per 1,000 residents in 1996-2000 to 3.8 events per 1,000 residents in 2007-2011 (**Figure A3.3.4.c1**);
 - During 2011/12, AMI event rate for the Region was lower than that for Manitoba but higher than the national average, although the differences were not statistically significant.²
 - Stroke event rate among residents aged 40 years and older decreased from 3.7 cases per 1,000 residents in 1996/97-2000/01 to 2.6 cases per 1,000 in 2002/03-2006/07 and has stabilized since (**Figure A3.3.4.d1**);
 - During 2011/12, stroke incidence rate for the Region was lower than that for Manitoba and Canada, although the differences were not statistically significant.
- All CVD event rates varied across the Region's community areas. Churchill had higher IHD incidence and prevalence rates than other community areas. No association between neighborhood income and CVD event rates was observed.

¹ Public Health Agency of Canada. Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009.

² Canadian Institute for Health Information. Health Indicators 2013. Ottawa, 2013.

3.3.5 CANCER INCIDENCE

- In 2008-10, age-standardized overall invasive cancer incidence was 475.7 cases per 100,000 in the Region (**Figure A3.3.5.a2**);
- Breast (female), prostate, lung, and colorectal are top sites of newly diagnosed cancers, with incidence of 127.9, 117.4, 67.9, and 65.2 cases per 100,000 residents respectively in 2008-10.

MORE ABOUT CHRONIC DISEASES

- Chronic diseases often share common risk factors as shown in **Table 3.3.A**.¹
- A large percentage of chronic diseases are preventable through the reduction of the four behavioral risk factors.

Table 3.3.A

Shared Common Modifiable Risk Factors for Chronic Diseases

Chronic diseases	Causative risk factors			
	Tobacco use	Unhealthy diets	Physical inactivity	Harmful use of alcohol
Heart disease and stroke	✓	✓	✓	✓
Diabetes	✓	✓	✓	✓
Cancer	✓	✓	✓	✓
Chronic respiratory diseases	✓			

Source: Cancer Care Ontario, Ontario Agency for Health Protection and Promotion (Public Health Ontario)

3.3.6 DEMENTIA

- One in ten residents aged 55 years and older lived with dementia;
- Seven Oaks North (19.6%) and Point Douglas South (19.3%) had the highest dementia prevalence in 2007/08-2011/12. (**Figure A3.3.6.a3**)

3.3.7 OSTEOPOROSIS

- During 2009/10-2011/12, 10.3% of adults aged 50 years and older in Winnipeg and 14.3% of those in Churchill were treated for osteoporosis. (**Figure A3.3.7.a2**)

3.4 MENTAL AND SUBSTANCE ABUSE DISORDERS

- Major mental and substance abuse disorder prevalence stabilized during the past 15 years (1996-2011):
 - Nearly one quarter of residents aged 10 years and older were treated for a mood and anxiety disorders (**Figure A3.4.1.a1**);
 - Approximately 5% of residents aged 10 years and older received healthcare related to substance abuse (**Figure A3.4.2.a1**).
- Substance abuse disorders and mental health disorders often co-occur, with more than 50% of persons with substance abuse having a mental health disorder and 15-20% of patients with a mental health disorder having a substance abuse problem.²
- There were significant variations in mental and substance abuse disorders prevalence:

¹ Cancer Care Ontario, Ontario Agency for Health Protection and Promotion (Public Health Ontario). *Taking action to prevent chronic disease: recommendations for a healthier Ontario*. Toronto: Queen's Printer for Ontario; 2012.

² Canadian Centre for Substance Abuse. *Substance abuse in Canada: concurrent disorders*. Ottawa, 2009.

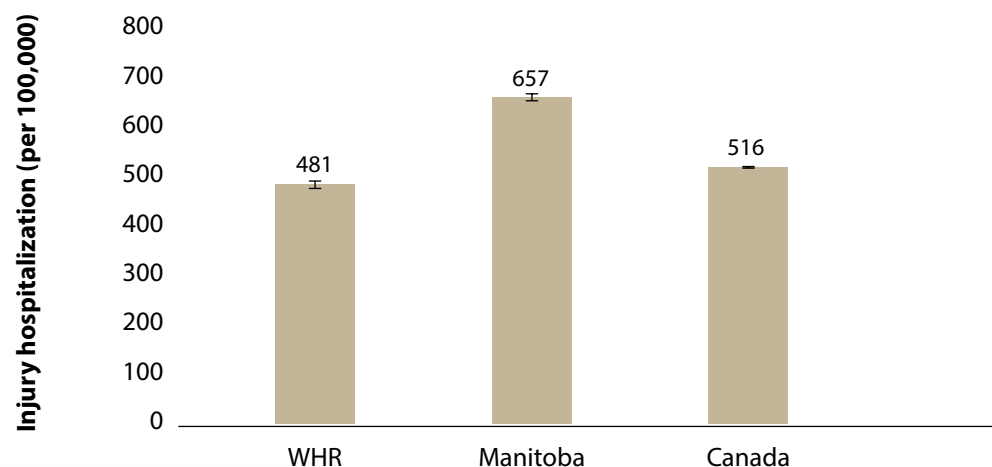
- Churchill had the highest substance abuse prevalence rate (11.1% in 2002/03 – 2006/07 and 14.6% in 2007/08-2011/12 (**Figure A3.4.2.a2**);
- Point Douglas South had the highest mood and anxiety disorders prevalence (32.0% in 2007/08-2011/12) (**Figure A3.4.1.a3**);
- Lower income communities tended to have higher mental disorder and substance abuse prevalence. (**Figure A3.4.2.a4**)

3.5 INJURY HOSPITALIZATION

- During 2000-2012, injuries accounted for 7.5% of all hospitalizations in the Region and age-standardized injury hospitalization rate was 662.3 per 100,000 residents.
- Unintentional injury hospitalization rate has declined, whereas intentional injury hospitalization rate has slowly increased since 2000. (**Figures A3.5.1.a1/a3**)
- Falls, suicide, assault, and motor vehicle accident are the top causes for injury hospitalizations. (**Table A3.5.1.b1**)
- Intentional and unintentional injuries hospitalization rates for residents living in the lowest income quintile are more than double that for residents living in the highest income quintile.
- During 2011-12, injury hospitalization rate (481 hospitalizations per 100,000 residents) in the Region was lower than that for the province (657 hospitalizations per 100,000 residents) and Canada (516 hospitalizations per 100,000 residents) (see **Figure 3.5.A**).

Figure 3.5.A

Injury Hospitalization Rates Across The Winnipeg Health Region (WHR), Manitoba, and Canada, 2011-12



Source: Statistics Canada

3.5.1 HOSPITALIZED HIP FRACTURE EVENT RATE

- In 2011/12, age-standardized hospitalized hip fracture event rate was 541 fractures per 100,000 residents in the Region and 524 fractures for Manitoba. 85% of patients received hip fracture surgery within 48 hours.¹ (No figure/table)

¹ Canadian Institute for Health Information. Health Indicators 2013. Ottawa, 2013.

3.6 SEXUALLY TRANSMITTED INFECTIONS (STIs)

- Genital chlamydia and gonorrhea are the two most commonly reported bacterial STIs in Winnipeg, Manitoba and across Canada.¹
- Infection rates for genital chlamydia and gonorrhea have both increased for several years since the introduction of more accurate urine-based testing methods in 2003/04; and these rates declined thereafter (with one exception for gonorrhea in 2012).
- Genital chlamydia and gonorrhea infection rates varied across the communities in Winnipeg: Age- and sex-adjusted genital chlamydia infection rates in Point Douglas (971.9 per 100,000), Downtown (644.4 per 100,000), and Inkster (532.0 per 100,000) were higher than the Winnipeg average (398.3 per 100,000); age- and sex-adjusted genital gonorrhea infections rates in Point Douglas (278.7 per 100,000) and Downtown (177.0 per 100,000) were higher than the Winnipeg average (77.4 per 100,000). Churchill data were not reported. (Figures A3.6.1.a2 & A3.6.2.a2)
- Young women are more likely to be infected with chlamydia and gonorrhea bacteria. Women aged between 20 and 29 years accounted for 50% of genital chlamydia infections and 46% of genital gonorrhea infections reported in Winnipeg in 2013. Untreated chlamydia and gonorrhea can lead to a number of complications in women including pelvic inflammatory disease, infertility, and ectopic pregnancy. (Tables A3.6.1.a1 & A3.6.2.a1)

3.7 REPRODUCTIVE AND DEVELOPMENTAL HEALTH

3.7.1 FAMILIES FIRST PROGRAM RISK FACTORS

- Information on Families First Program risk factors is collected by public health nurses when visiting newborns using the Families First Screening Form (for post-partum referral). The information is used to assess mother and family's health behaviors, mental health, and socioeconomic status.
- In 2011,
 - 13.6% of pregnant women living in Winnipeg and 23.5% of those living in Churchill drank alcohol (Table A3.7.1.a1)
 - 16.6% of pregnant women living in Winnipeg and 17.6% of those living in Churchill smoked during pregnancy (Table A3.7.1.a2)
 - 14.7% of pregnant women living in Winnipeg and 23.5% of those living in Churchill did not complete high school (Table A3.7.1.a3)
 - 17.1% of Winnipeg families with newborns had financial difficulties (Table A3.7.1.a4)
 - 16.9% of mothers with newborns living in Winnipeg experienced anxiety/depression during pregnancy (Table A3.7.1.a5)
 - 23.9% of mothers/families in Winnipeg and 41.2% of mothers/families in Churchill had three or more of the five risk factors (Table A3.7.1.a6)
- Large fluctuations were observed for Churchill and caution is needed for interpretation of the numbers.

3.7.2 PREGNANCY AND BIRTH OUTCOMES

TEEN PREGNANCY AND BIRTH

- Both teen pregnancy and teen birth rates in the Region have been declining:
 - The proportion of teen pregnancy in the Region has declined, from 16.8 pregnancies per 1,000 teens in 2010/11 to 15.5 pregnancies per 1,000 teens in 2012/13. (Figure A3.7.2.a1)
 - The teen birth rate has declined from 10.5 births per 1,000 teen females in 2010/11 to 8.9 births per 1,000 teen females in 2012/13. (Figure A3.7.3.a1)
- Overall, communities in the central area of the Region (Downtown and Point Douglas CAs) had the highest teen pregnancy and birth rates (Figures A3.7.2.a2 & A3.7.3.a2)

1 Public Health Agency of Canada. *The Chief Public Health Officer's Report on the State of Public Health in Canada, 2013: Infectious Disease—The Never-ending Threat*. Access at: <http://publichealth.gc.ca/CPHOReport>

PRETERM BIRTHS

- During 2005/06–2008/09, 8.1% of live births were delivered prematurely, including 2.1% delivered before 33 weeks of gestation, and 6.0% delivered between 34 and 36 weeks. ([Figure A3.7.4.a1](#))
- Preterm birth rate varied. The rate in Fort Garry community area (6.7%) was significantly lower than the Winnipeg average (8.1%), while the rates in Downtown (10.4%) and Point Douglas (10.1%) community areas were significantly higher. ([Figure A3.7.4.a1](#))

BIRTH WEIGHT

- During 2007/2008–2011/2012, 5.8% of live born infants weighed between 500 and 2,499 grams (low birth weight) ([Figure A3.7.5.a1](#));
- Household income was inversely associated with the proportion of infants with low birth weight ([Table A3.7.5.a1](#));
- During 2007/08–2008/09, 8.2% of live born babies weighed under the 10th percentile of the sex–specific birth weight for a given gestational age (small-for-gestational-age, SGA) and 13.2% of live born babies weighed above the 90th percentile of the sex–specific birth weight for a given gestational age (large-for-gestational-age, LGA).¹

3.7.3 BREASTFEEDING

- Health Canada and the Canadian Pediatric Society recommend that mothers breastfeed their child exclusively (i.e., a baby is only fed breast milk) for the first 6 months. Two indicators, breastfeeding initiation and duration, are normally used.
- In 2008/09, 84.5% mothers in the Region initiated breastfeeding soon after their child's birth (i.e., at discharge from hospital or following a home birth under midwifery care). The initiation proportion has slightly increased over the past 10 years in the Region, following the national trend.²
- Breastfeeding initiation in Inkster, Downtown, and Point Douglas community areas were consistently lower than the Winnipeg and Manitoba averages. ([Figure A3.7.6.a1](#))
- Mothers with lower socioeconomic status in the Region were less likely to initiate breastfeeding.²
- In 2011–2012, 89% of Canadian mothers initiated breastfeeding soon after their child's birth, a slight increase from 85% in 2003; but only 26% of Canadian mothers breastfed exclusively for six months or more (although this was higher than 17% in 2003).³
- Insufficient breast milk, difficulties with breastfeeding technique, and medical condition(s) of the mother or baby are the three most common reasons for stopping breastfeeding before six months.⁴

3.7.4 EARLY DEVELOPMENT INSTRUMENT (READINESS FOR SCHOOL)

- The Early Development Instrument (EDI) is a teacher-completed checklist for assessing children's "readiness for school" in five domains (i.e., physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge).
- EDI is designed to measure population-level early childhood development, but not for individual child assessment.
- In 2010/2011 school year, 29% of Winnipeg children and one-third of Churchill children were not ready for school in one or more domains. ([Figure A3.7.7.a1](#))
- The not-ready-for-school rates in Downtown and Point Douglas community areas were significantly higher than the Region's average, while the rate in St. James-Assiniboia community was lower. ([Figure A3.7.7.a2](#))
- Children born to mothers who were teenagers at their first childbirth, children in families ever on income assistance, and children involved with Child and Family Services are at-risk groups for delayed early development.⁵

1 Heaman M, Kingston D, Helewa ME, Brownell M, Derksen S, Bogdanovic B, McGowan KL, Bailly A. *Perinatal Services and Outcomes in Manitoba*. Winnipeg, MB: Manitoba Centre for Health Policy, November 2012.

2 Heaman M, Kingston D, Helewa ME, Brownell M, Derksen S, Bogdanovic B, McGowan KL, Bailly A. *Perinatal Services and Outcomes in Manitoba*. Winnipeg, MB: Manitoba Centre for Health Policy, November 2012.

3 Linda Gionet. 2013. "Breastfeeding trends in Canada" *Health at a Glance*. November. Statistics Canada Catalogue no. 82-624-X.

4 Linda Gionet. 2013. "Breastfeeding trends in Canada" *Health at a Glance*. November. Statistics Canada Catalogue no. 82-624-X.

5 Santos R, Brownell M, Ekuma O, Mayer T, Soodeen R. *The Early Development Instrument (EDI) in Manitoba: Linking Socioeconomic Adversity and Biological Vulnerability at Birth to Children's Outcomes at Age 5*. Winnipeg, MB: Manitoba Centre for Health Policy, May 2012.

Chapter 4: Health Behaviors, Preventive Services, and Socioeconomic Determinants of Health Across the Winnipeg Health Region

In this chapter, factors increasing or decreasing health risk are described. These factors include health behaviors (i.e., tobacco smoking, alcohol use, physical activity, fruit and vegetable consumption, and body mass index), use of preventive services (i.e., immunization, cancer screening tests), and socioeconomic status (i.e., education, employment, income, etc.). Whenever available, data on both general population and special populations (i.e., youth, pregnant women, seniors) are presented. Several measures may be used for one factor in order to describe different patterns of exposure or exposures in specific subgroups. For instance, tobacco smoking can be measured using active tobacco smoking and passive tobacco smoking (e.g., exposure to tobacco smoke at home).

4.1 HEALTH BEHAVIORS

4.1.1 TOBACCO SMOKING

ACTIVE TOBACCO SMOKING IN THE GENERAL POPULATION

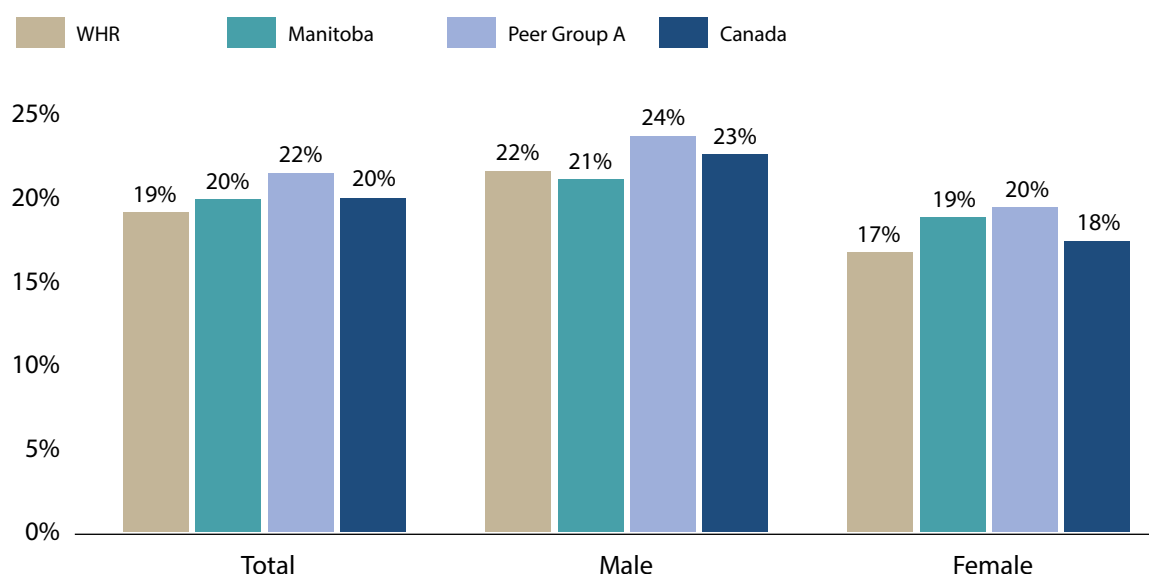
- 19% of residents aged 12 years and older in the Region reported smoking daily or occasionally during 2007-12, a decline from 22% during 2001-05. (**Figure A4.1.1.a1**)
- Daily smokers in Manitoba smoked on average 13 cigarettes per day, but the average consumption has slightly (but steadily) decreased since 1999.²
- 24% of male smokers and 14% of female smokers are heavy smokers (25 or more cigarettes per day) in Canada.¹
- There was a four times difference in current smoking percentage across the Region, ranging from 10% in Assiniboine South neighborhood cluster to 39% in Point Douglas North neighborhood cluster. (**Figure A4.1.1.a3**)
- The percentage of current smokers in the Region was similar to the average for other similar health regions (Peer Group A) across the country and the Canadian average (see **Figure 4.1.A**).
- Six (6) out of 10 current smokers are seriously considering quitting in the next 6 months and nearly half of current smokers have tried to quit in the past year.² Nearly half of those who attempted to quit used stop-smoking medications including nicotine replacement therapy.

¹ Jan Z. *Current Smoking Trends. Health at a Glance, June 2012.*

² PROPEL Centre for Population Health Impact. *Tobacco use in Canada: patterns and trends, 2012 Edition.* Waterloo, Ontario, 2012.

Figure 4.1.A

Tobacco Smoking (daily or occasionally) Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada



Source: Canadian Community Health Survey, 2011/12

TOBACCO SMOKING IN YOUTH

- According to the Manitoba Youth Health Survey completed during the 2012-13 school year, 9% of female and 10% of male grade 7-12 students in the Region reported being current smokers (daily or occasionally); 2% of students reported using smokeless tobacco in the past month; 42% of students who are current smokers wanted to quit.¹

EXPOSURE TO SECOND-HAND SMOKE AT HOME

- During 2007-12, one in 10 non-smokers aged 12 years and older in the Region were exposed to second-hand smoke at home, a substantial decrease from 17% in 2003-05. (Figure A4.1.1.b1)
- There was a greater than 4 times difference across all community areas, with the highest percentage (26%) in Point Douglas community area and the lowest (6%) in Fort Garry community area. (Figure A4.1.1.b2)
- Youth aged between 12 and 19 years had the highest percentage of exposure to second-hand smoke at home.²
- The percentage of those exposed to second-hand smoke has steadily decreased in Canada since 2003.²

TOBACCO SMOKING DURING PREGNANCY

- As shown in section 3.7.1, 16.6% of pregnant women living in Winnipeg and 17.6% of those living in Churchill smoked during pregnancy in 2011. (Figure A3.7.1.a2)
- Earlier analysis showed that the percentage of pregnant women who smoked varied across the Region: less than 10% of women smoked during pregnancy in Fort Garry (6.1%) and Assiniboine South (7.9%) community areas, but more than a quarter of women smoked during pregnancy in Inkster (25.7%), Downtown (28.2%), and Point Douglas (39.7%) community areas. Pregnant women with socio-economic disadvantages were more likely to smoke during pregnancy.³ (Figure A3.7.1.a2)

¹ WRHA Youth Health Survey Report 2012.

² Statistics Canada. Exposure to second-hand smoke at home, 2012.

³ Heaman M, Kingston D, Helewa ME, Brownell M, Derksen S, Bogdanovic B, McGowan KL, Bailly A. Perinatal Services and Outcomes in Manitoba. Winnipeg, MB. Manitoba Centre for Health Policy, November 2012.

- Canadian surveys have produced different estimations of smoking during pregnancy:
 - In the Canadian Community Health Survey, around 10% (varied in different cycles) reported smoking daily;¹
 - 6.3% of pregnant women aged between 20 and 45 in the Canadian Tobacco Use Monitoring Survey reported smoking regularly in 2012;²
 - The Canadian Maternity Experience Survey reported 15.8% of Canadian women (23.2% of Manitoba women) smoked daily in the three months prior to pregnancy and 10.5% during the last three months of pregnancy (14.5% in Manitoba).³

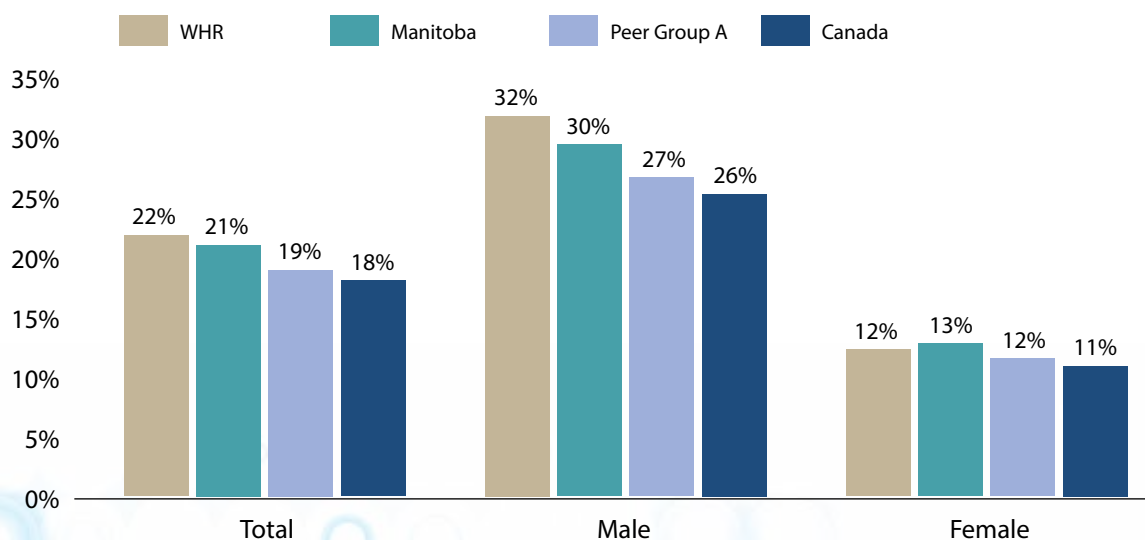
4.1.2 ALCOHOL USE

ALCOHOL USE IN THE GENERAL POPULATION

- In 2012, 79.5% of Manitobans aged 15 years and older reported drinking alcohol in the past year.⁴
- Among Canadians aged 15 years and older who drank alcohol in the past year, 18.6% (representing 14.4% of the total population) exceeded the guideline for chronic effects (i.e., no more than 10 drinks a week for women, with no more than 2 drinks a day most days; no more than 15 drinks a week for men, with no more than 3 drinks a day most days) and 12.8% (representing 9.9% of the total population) exceeded the guideline for acute effects (i.e., no more than 3 drinks for women and no more than 4 drinks for men on any single occasion).⁵
- Binge drinking or heavy drinking is associated with numerous health problems including chronic diseases, unintentional injuries, and violence. Nearly one in four (23%) of the Region's residents aged 12 years and older reported binge drinking (5 or more drinks on one occasion, at least once a month in the past year). The percentage increased over time. (Figure A4.1.2.a1)
- The percentage of those binge drinking in the Region varied from 22% in St. Boniface and River Heights community areas to 38% in Assiniboine South community area. (Figure A4.1.2.a2)
- The percentage of those binge drinking in the Region was slightly higher than that for other similar health regions (Peer Group A) and Canada overall, although the difference is not statistically tested (see Figure 4.1.B).

Figure 4.1.B

**Binge Drinking (5 or more drinks on one occasion, at least once a month in the past year)
Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada**



Source: Canadian Community Health Survey, 2011/12

1 Statistics Canada. Canadian Community Health Survey, 2010.

2 Statistics Canada. Canadian Tobacco Use Monitoring Survey, February - December 2012

3 Statistics Canada. Maternity Experience Survey, 2006-07.

4 Statistics Canada. Canadian Alcohol and Drug Use Monitoring Survey: Summary of Results, 2012.

5 Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). Alcohol and health in Canada: A summary of evidence and guidelines for low-risk drinking. Ottawa, ON: Canadian Centre on Substance Abuse.

ALCOHOL USE IN YOUTH

- According to the Manitoba Youth Health Survey completed during the 2012-13 school year, 21% of grade 7-12 students in the Region had at least one alcoholic drink in the past month;¹
- 16% of these students indicated that they had 5 or more drinks of alcohol within a couple of hours on at least one day in the past month;²
- Among Canadians, those aged between 18 and 34 had the highest binge drinking rates (36.7% of males and 27.0% of females).³

ALCOHOL USE DURING PREGNANCY

- According to the Public Health Agency of Canada, “There is no safe amount or safe time to drink alcohol during pregnancy.”⁴
- The Canadian Low-Risk Drinking Guidelines recommend: “If you are pregnant, planning to become pregnant, or about to breastfeed, the safest choice is to drink no alcohol at all.”
- As shown in Section 3.7.1, 14% of pregnant women living in Winnipeg and 24% of those living in Churchill drank alcohol in 2011. (**Table A3.7.1.a1**)
- The Manitoba Centre for Health Policy (2011) reported geographic variation in alcohol use during pregnancy: less than 10% of women had alcohol during pregnancy in Fort Garry (6.4%), Assiniboine South (7.6%), River Heights (5.0%), and St. James–Assiniboia (8.0%) community areas, but more than 20% women had alcohol during pregnancy in St. Boniface (21.1%) and Point Douglas (23.8%) community areas. In the Region, pregnant women with socio-economic disadvantages were more likely to have had alcohol during pregnancy.⁵

4.1.3 PHYSICAL ACTIVITY

- Among residents aged 12 years and older in the Region, 43% reported being inactive in physical activities, and only 31% being active during 2007-12. (**Figure A4.1.3.a1**)
- The percentage of residents aged 12 years and older being physically inactive (leisure + travel) ranged from 36% in St. Boniface, River Heights, and Inkster community areas and 59% in Point Douglas during 2007-12. (**Figure A4.1.3.a2**)
- Among students in grades 7-12 in the Region, 21% of females and 16% of males reported being inactive in physical activities.⁶
- The Region’s residents, particularly females, were more likely to have participated in moderately active or active leisure-time physical activities than those in other areas of the province, other similar health regions (Peer Group A) in Canada, and across the country (see **Figure 4.1.C**).⁷
- According to the Canadian Physical Activity Guidelines and the Canadian Sedentary Behavior Guidelines⁸:
 - Youth aged between 12 and 17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily (e.g., skating, bike riding, running, and rollerblading) and should minimize the time they spend being sedentary each day by limiting recreational screen time (e.g., television, video game) to no more than 2 hours per day.
 - Adults should accumulate at least 150 minutes of moderate- to vigorous-intensity aerobic physical activity per week.
- Total physical activity (leisure + travel + work) was reported in previous CHA reports and should not be compared directly to the percentages of physical activity described in this report for just leisure + travel.

1 WRHA Youth Health Survey Report 2012.

2 Statistics Canada. Heavy drinking, 2012.

3 Public Health Agency of Canada. The Sensible Guide to a Healthy Pregnancy. 2011

4 Centre for Addiction and Mental Health. Canada’s Low-Risk Alcohol Drinking Guidelines. Toronto, 2013.

5 Hilderman T, Katz A, Derksen S, McGowan K, Chateau D, Kurbis C, Allison S, Reimer JN. Manitoba Immunization Study. Winnipeg, MB: Manitoba Centre for Health Policy, April 2011.

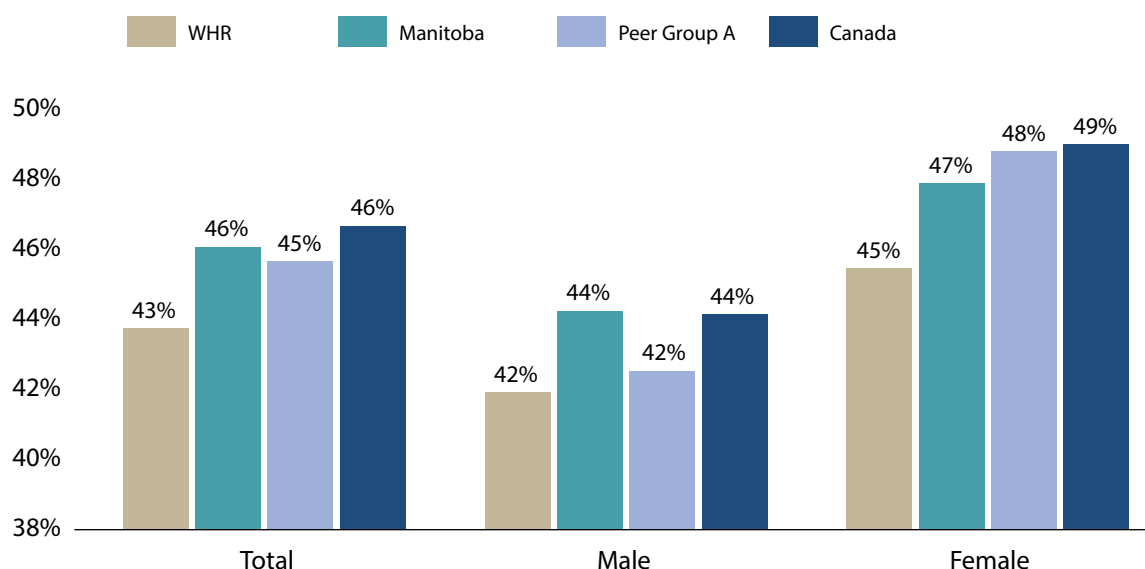
6 WRHA. Youth Health Survey Report 2012.

7 Statistics Canada. Health Profile 2013.

8 Canadian Society for Exercise Physiology. Canadian Physical Activity Guidelines and the Canadian Sedentary Behavior Guidelines.

Figure 4.1.C

Inactive Leisure-time Physical Activity Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada



Source: Canadian Community Health Survey, 2011/12

4.1.4 FRUIT AND VEGETABLE CONSUMPTION

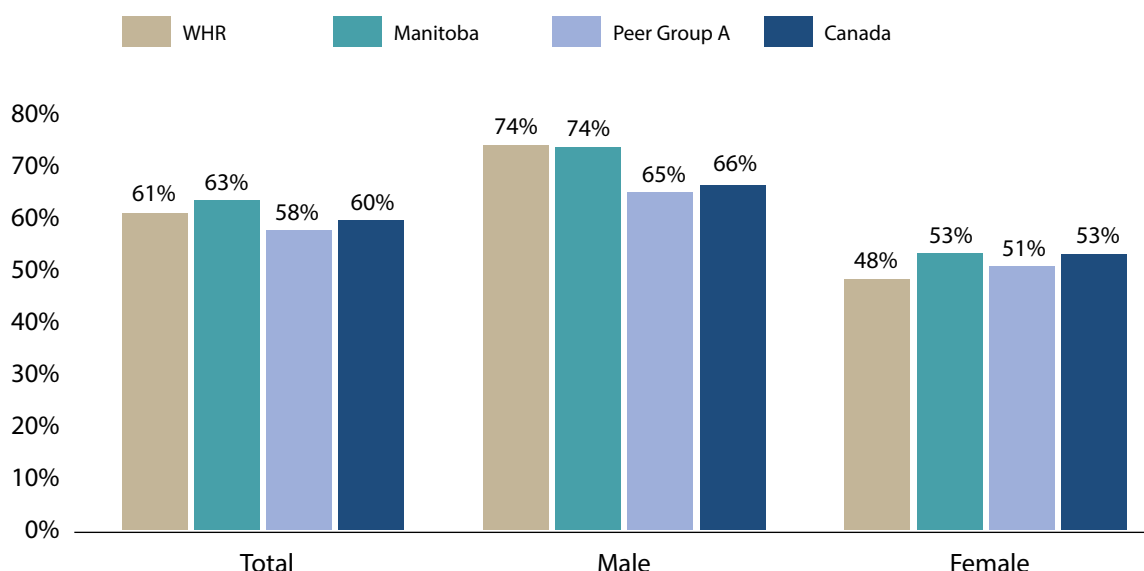
- Fruit and vegetable consumption is measured using either times per day (frequency, no matter how much is eaten at any one time) or servings per day (amount, one serving equals a cup of fruit or ½ cup of vegetable). Canada's Food Guide¹ is based on servings and recommends:
 - 4 or more servings of fruit and vegetables per day for children under age 14 years;
 - 7 or more servings of fruit and vegetables per day for teens and adults (above age 14 years).
- According to the Canadian Community Health Survey, 62% of residents aged 12 years and older in the Region had a serving of fruit and vegetables less than 5 times per day. The percentage varied across the Region. (Figure A4.1.4.a2)
- Considering the difference between the two measures (frequency vs. amount consumed), the percentage of those meeting the recommendations may be even lower.
- According to the Manitoba Youth Health Survey completed during the 2012-13 school year, only 40% of students in grades 7-12 in the Region reported consuming fruits and vegetables 7 or more times per day.²
- While males in the Region consumed fruit and vegetables less frequently than those in Peer Group A and across Canada in 2011/12, females in the Region consumed fruits and vegetables slightly more frequently than those in other regions (see Figure 4.1.D).

1 Health Canada. Eating well with the Canada's Food Guide. 2011.

2 WRHA Youth Health Survey Report 2012.

Figure 4.1.D

Fruit and Vegetable Consumption (0-4 times per day) Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada



Source: Canadian Community Health Survey, 2011/12

4.1.5 OVERWEIGHT AND OBESITY

- On the basis of self-reported height and weight, 36% of residents aged 18 years and older in the Region were overweight and 18% were obese in 2007-2012 (i.e., 54% were overweight/obese). The percentages vary across the Region. (**Figure A4.1.5.a1**)
- Twenty-seven percent (27%) of boys and 19% of girls in grades 7-12 in the Region were overweight/obese in the 2012/13 school year.¹
- The overweight/obesity percentage was similar to that in other similar health regions (Peer Group A) and the national average (see **Figure 4.1.E**).
- Evidence indicates that people often report their weight less than and their height more than an objective measurement of the two.² Therefore, BMI calculated based on self-reported weight and height may underestimate the true value of BMI, leading to the likely underestimation of overweight/obesity values.
- On average, pregnant women in Manitoba gained 14.5 kilograms (35 pounds) during pregnancy, a weight gain similar to the national average (15.7 kg) ³ and considered to be expected.

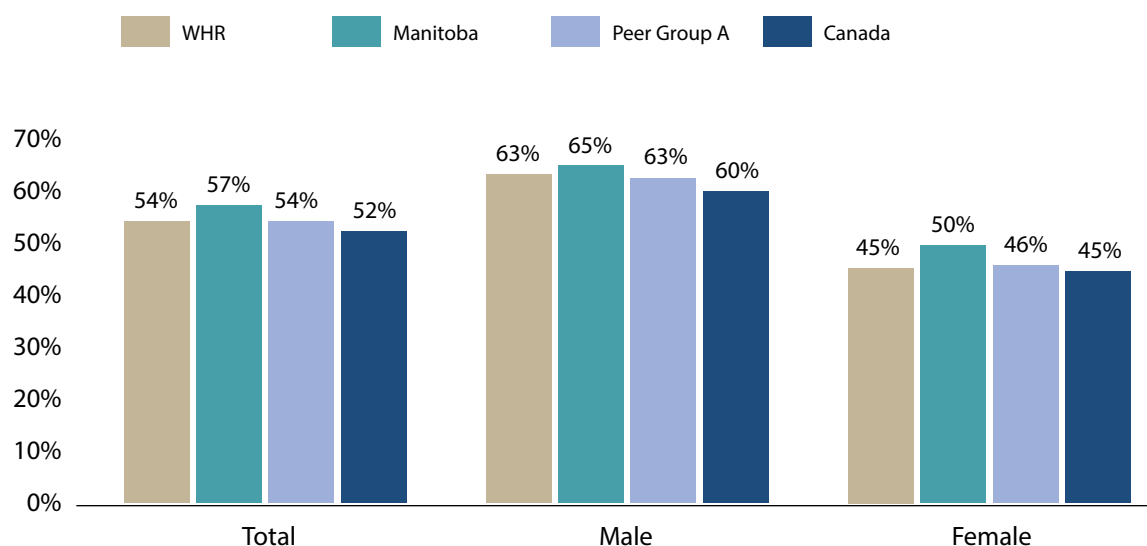
¹ WRHA. Youth Health Survey Report, 2012.

² Nawaz H, Chan W, Abdulrahman M, Larson D, Katz DL. Self-reported weight and height. Implications for obesity research. *Am J Prev Med.* 2001;20(4):294-298.

³ Statistics Canada. Maternity Experience Survey, 2006-07.

Figure 4.1.E

Overweight and Obesity Across The Winnipeg Health Region (WHR), Manitoba, Health Region Peer Group A, and Canada



Source: Canadian Community Health Survey, 2011/12

4.2 USE OF PREVENTIVE SERVICES

4.2.1 IMMUNIZATIONS

CHILD IMMUNIZATIONS¹

- As of March 2014, Manitoba's universal child immunization program provides protection against 13 vaccine-preventable diseases, plus one for girls only (human papillomavirus or HPV).
- Complete immunization coverage is relatively stable in the Region. In 2007/08,
 - The complete coverage (including tetanus, diphtheria, pertussis, polio, mumps, rubella and Haemophilus influenzae type b (Hib)) for 2-year olds was 72.4% in Winnipeg and 73.7% in Churchill. (Figure A4.2.1.a1)
 - The complete coverage for 7-year olds in Winnipeg was 66.9% (suppressed for Churchill). (Figure A4.2.1.b1)
 - The complete coverage for 17-year olds was 54.3% in Winnipeg and 63.6% in Churchill. (Figure A4.2.1.c1)
- Complete coverage varied across the Region, with Point Douglas and Downtown community areas having the lowest coverage for all ages. (Figures A4.2.1.a2/b2/c2)
- Coverage for individual vaccines varied.
- Children living in lower income communities were less likely to have complete immunization coverage at all ages. (Tables A4.2.1.a1/b1/c1)

ADULT INFLUENZA IMMUNIZATION (65 YEARS AND OLDER)

- In 2011/12, 59% of residents aged 65 years and older in the Region had seasonal influenza vaccination, 9% lower than the 68% found in 2006/07. (Figure A4.2.1.d1) The coverage varied by neighborhood cluster. Only 53% of senior residents in Churchill had influenza vaccines in 2011/12. (Figure A4.2.1.d3)
- The coverage was similar to the national average (65% in 2012), but lower than the national target (80% by 2010).²
- There was no association between household income and influenza immunization. (Table A4.2.1.d1)

¹ Hilderman T, Katz A, Derksen S, McGowan K, Chateau D, Kurbis C, Allison S, Reimer JN. Manitoba Immunization Study. Winnipeg, MB: Manitoba Centre for Health Policy, April 2011.

² Public Health Agency of Canada. Vaccine coverage amongst adult Canadians: Results from the 2012 adult National Immunization Coverage (aNIC) survey.

4.2.2 CANCER SCREENING

BREAST CANCER SCREENING (MAMMOGRAPHY)

- Overall, breast cancer screening participation rate was close to the national benchmark (70%) that was established by Canadian organized screening programs based on randomized clinical trial findings.¹ During 2010/11-2011/12, 51.4% of women aged 50-69 years living in Winnipeg and 52% of those living in Churchill had a screening mammography. (Figure A4.2.2.a1)
- However, there was substantial inequality across the communities: Two central community areas (Downtown and Point Douglas) had lower than the average percentages. During 2010/11-2011/12, only 30.3% of Point Douglas South and 33.4% of Downtown East women aged 50-69 years had a screening mammography in the past two years. (Figure A4.2.2.a2)

CERVICAL CANCER SCREENING (PAP TEST)

- Pap test (every 3 years) is strongly recommended to women aged 30-69 years by the Canadian Task Force on Preventive Health Care.²
- During 2009/10-2011/12, 53.4% of Winnipeg women aged 15 years and older had a cervical cancer screening test and the participation rate differed in communities, ranging from 41.8% in Point Douglas South and 62.1% in St. Boniface East. (Figure A4.2.2.b2)

4.2.3 PRENATAL CARE

- In 2007/08-2008/09, 7.7% of Winnipeg pregnant women had inadequate prenatal care. (Figure A4.2.3.a1)
- Point Douglas had the highest proportion of women having inadequate prenatal care (19.1%), followed by Downtown community area (14.8%), indicating more efforts are needed for these areas. (Figure A4.2.3.a2)

¹ Canadian Partnership Against Cancer. *Organized Breast Cancer Screening Programs in Canada: Report on Program Performance in 2007 and 2008*. Toronto: Canadian Partnership Against Cancer; February, 2013.

² The Canadian Task Force on Preventive Health Care *Recommendations on screening for cervical cancer*. CMAJ, 2013, 185(1), 35-45.

4.3 SOCIOECONOMIC DETERMINANTS

According to the 2011 Canadian Census (from the short form survey),

- 56.1% of males and 52.0% of females aged 15 years and older are married or living with a common-law partner.
- Nearly 1 in 5 families are lone-parent families.
- 12.7% of all the Region's residents and 32.0% of senior residents (age 65 years and older) are living alone.
- 22.2% of residents' mother tongues are non-official languages.
- 1.3% of residents do not know English or French.
- 1.2% of residents do not speak English or French.
- Neither English nor French is the most frequently spoken language at home by 10.5% of the Region's residents.
- 14.1% of residents regularly speak languages at home other than the two official languages.

Table 4.3.A

The Winnipeg Health Region Residents' Characteristics, 2011 Census Data

Characteristics	Both Sexes		Male		Female	
	Number	%	Number	%	Number	%
Marital status						
Total population 15 years and older by marital status	563,970		270,895		293,070	
Married or living with a common-law partner	304,510	54.0%	152,110	56.1%	152,400	52.0%
Not married and not living with a common-law partner	259,460	46.0%	118,790	43.9%	140,670	48.0%
Family characteristics						
Total number of census families in private households	183,080					
Total couple families (married or common law)	148,620	81.2%				
Total lone-parent families	34,460	18.8%				
Household and dwelling characteristics						
Total number of persons in private households	664,485		323,815		340,670	
Number of persons not in census families	127,315	19.2%	59,290	18.3%	68,020	20.0%
Living with relatives	19,310	2.9%	8,575	2.6%	10,735	3.2%
Living with non-relatives only	23,805	3.6%	13,660	4.2%	10,150	3.0%
Living alone	84,195	12.7%	37,060	11.4%	47,135	13.8%
Number of census family persons	537,175	80.8%	264,530	81.7%	272,645	80.0%
Total number of persons 65 years and older in private households	88,675		38,160		50,520	
Number of persons not in census families aged 65 years and older	33,125	37.4%	8,725	22.9%	24,405	48.3%
Living with relatives	3,605	4.1%	750	2.0%	2,860	5.7%
Living with non-relatives only	1,185	1.3%	560	1.5%	625	1.2%
Living alone	28,335	32.0%	7,415	19.4%	20,925	41.4%
Number of census family persons aged 65 years and older	55,550	62.6%	29,435	77.1%	26,115	51.7%

Characteristics	Both Sexes		Male		Female	
	Number	%	Number	%	Number	%
Detailed mother tongue						
Detailed mother tongue - Total population excluding institutional residents	670,190		326,310		343,885	
Single responses	652,470	97.4%	317,880	97.4%	334,590	97.3%
English	480,125	71.6%	236,485	72.5%	243,640	70.8%
French	23,630	3.5%	10,795	3.3%	12,835	3.7%
Non-official languages	148,715	22.2%	70,600	21.6%	78,115	22.7%
Multiple responses	17,725	2.6%	8,430	2.6%	9,295	2.7%
English and French	2,590	0.4%	1,225	0.4%	1,360	0.4%
English and non-official language	13,920	2.1%	6,630	2.0%	7,290	2.1%
French and non-official language	935	0.1%	450	0.1%	480	0.1%
English, French and non-official language	285	0.0%	125	0.0%	165	0.0%
Knowledge of official languages						
Knowledge of official languages - Total population excluding institutional residents	670,200		326,310		343,890	
English only	592,475	88.4%	292,055	89.5%	300,420	87.4%
French only	935	0.1%	415	0.1%	525	0.2%
English and French	68,260	10.2%	30,310	9.3%	37,945	11.0%
Neither English nor French	8,525	1.3%	3,530	1.1%	5,000	1.5%
First official language spoken						
First official language spoken - Total population excluding institutional residents	670,190		326,320		343,885	
English	636,905	95.0%	311,400	95.4%	325,510	94.7%
French	22,875	3.4%	10,445	3.2%	12,435	3.6%
English and French	2,145	0.3%	1,065	0.3%	1,080	0.3%
Neither English nor French	8,270	1.2%	3,410	1.0%	4,860	1.4%
Detailed language spoken most often at home						
Detailed language spoken most often at home - Total population excluding institutional residents	670,195		326,310		343,885	
Single responses	637,490	95.1%	310,495	95.2%	326,995	95.1%
English	557,200	83.1%	272,235	83.4%	284,965	82.9%
French	9,735	1.5%	4,205	1.3%	5,530	1.6%
Non-official languages	70,560	10.5%	34,060	10.4%	36,500	10.6%
Multiple responses	32,700	4.9%	15,815	4.8%	16,890	4.9%
English and French	1,650	0.2%	740	0.2%	905	0.3%
English and non-official language	30,175	4.5%	14,625	4.5%	15,550	4.5%
French and non-official language	460	0.1%	220	0.1%	235	0.1%
English, French and non-official language	415	0.1%	225	0.1%	200	0.1%

Characteristics	Both Sexes		Male		Female	
	Number	%	Number	%	Number	%
Detailed other language spoken regularly at home						
Detailed other language spoken regularly at home - Total population excluding institutional residents	670,195		326,310		343,885	
None	575,965	85.9%	282,040	86.4%	293,925	85.5%
Single responses	92,330	13.8%	43,390	13.3%	48,945	14.2%
English	36,385	5.4%	17,610	5.4%	18,770	5.5%
French	11,830	1.8%	5,230	1.6%	6,600	1.9%
Non-official languages	44,115	6.6%	20,545	6.3%	23,570	6.9%
Multiple responses	1,900	0.3%	885	0.3%	1,015	0.3%
English and French	190	0.0%	90	0.0%	100	0.0%
English and non-official language	775	0.1%	380	0.1%	390	0.1%
French and non-official language	920	0.1%	405	0.1%	515	0.1%
English, French and non-official language	15	0.0%	10	0.0%	10	0.0%

Note: To ensure confidentiality, the counts presented in the table, including totals, are randomly rounded either up or down to a multiple of '5' or '10': counts greater than 10 are rounded up or down to a multiple of 5; counts less than 10 are rounded to either a 0 or a 10. As a result, when these data are summed or grouped, the total counts may not match the individual counts since totals and sub-totals are independently rounded. Similarly, percentages, which are calculated on rounded data, may not necessarily add up to 100%.

According to the 2011 National Household Survey (Census 2011 replacement for the mandatory long form census):

- 1 out of 5 of the Region's residents are immigrants
- 1 out of 5 of the Region's residents are visible minorities
- 11.0% of residents in private households are Aboriginal (4.5% First Nations, 0.1% Inuit, and 6.3% Metis)
- 14.1% of residents moved 1 year ago and 40% moved 5 years ago
- 1 out of 5 residents (20%) aged 15 years and older have not completed high school
- Two-thirds of residents aged 15 years and older are in the labor force
- The Region's unemployment rate is 5.9%
- Median individual income for residents aged 15 years and older was \$30,461 in 2010
- Median household income in 2010 was \$58,513 before tax and \$51,038 after tax.
- 15.3% of males and 17.5% of females were low income based on Statistic Canada's after-tax low-income measure (a fixed percentage (50%) of median adjusted after-tax income of households observed at the person level, where 'adjusted' indicates that a household's needs are taken into account). It should be noted that this measure is not comparable to the low-income cut-off (LICO) measure in previous reports.

However, the 2011 National Household Survey was a voluntary survey and the global non-response rate in the Region was 21.3%. Caution is needed when interpreting these data.

Table 4.3.B

The Winnipeg Health Region Residents' Socio-economic Characteristics, 2011 National Household Survey

Characteristics	Total		Male		Female	
	Number	%	Number	%	Number	%
Immigrant status						
Total population in private households by immigrant status	664,575		324,000		340,575	
Non-immigrants	514,505	77.4%	250,940	77.5%	263,565	77.4%
Immigrants	143,715	21.6%	69,745	21.5%	73,965	21.7%
Non-permanent residents	6,365	1.0%	3,320	1.0%	3,040	0.9%

Characteristics	Total		Male		Female	
	Number	%	Number	%	Number	%
Visible minority population						
Total population in private households by visible minority	664,580		324,000		340,580	
Total visible minority population	139,725	21.0%	68,975	21.3%	70,745	20.8%
Not a visible minority	524,855	79.0%	255,030	78.7%	269,830	79.2%
Ethnic origin population						
Total population in private households by ethnic origins	664,580		324,005		340,575	
North American Aboriginal origins	77,190	11.6%	36,545	11.3%	40,645	11.9%
First Nations (North American Indian)	38,915	5.9%	18,165	5.6%	20,750	6.1%
Inuit	405	0.1%	175	0.1%	230	0.1%
Métis	41,665	6.3%	20,125	6.2%	21,540	6.3%
Other North American origins	116,125	17.5%	56,880	17.6%	59,245	17.4%
European origins	471,105	70.9%	228,545	70.5%	242,560	71.2%
Caribbean origins	7,655	1.2%	3,820	1.2%	3,840	1.1%
Latin, Central and South American origins	9,545	1.4%	4,895	1.5%	4,650	1.4%
African origins	15,830	2.4%	8,240	2.5%	7,585	2.2%
Asian origins	116,725	17.6%	56,870	17.6%	59,855	17.6%
Oceania origins	805	0.1%	440	0.1%	370	0.1%
Aboriginal population						
Total population in private households by Aboriginal identity	664,580		324,005		340,575	
Aboriginal identity	73,390	11.0%	34,840	10.8%	38,545	11.3%
First Nations (North American Indian) single identity	29,855	4.5%	13,450	4.2%	16,405	4.8%
Métis single identity	41,855	6.3%	20,605	6.4%	21,245	6.2%
Inuk (Inuit) single identity	375	0.1%	125	0.0%	250	0.1%
Multiple Aboriginal identities	750	0.1%	390	0.1%	365	0.1%
Aboriginal identities not included elsewhere	555	0.1%	275	0.1%	280	0.1%
Non-Aboriginal identity	591,195	89.0%	289,165	89.2%	302,030	88.7%
Total population in private households by Registered or Treaty Indian status	664,580		324,000		340,575	
Registered or Treaty Indian	28,600	4.3%	12,790	3.9%	15,810	4.6%
Not a Registered or Treaty Indian	635,980	95.7%	311,210	96.1%	324,770	95.4%
Total population in private households by Aboriginal ancestry	664,580		324,005		340,575	
Aboriginal ancestry	77,190	11.6%	36,540	11.3%	40,645	11.9%
First Nations (North American Indian) Aboriginal ancestry	38,915	5.9%	18,170	5.6%	20,745	6.1%
Métis ancestry	41,665	6.3%	20,125	6.2%	21,540	6.3%
Inuit ancestry	405	0.1%	175	0.1%	230	0.1%
Non-Aboriginal ancestry only	587,390	88.4%	287,460	88.7%	299,930	88.1%
Mobility						
Total - Mobility status 1 year ago	657,015		320,240		336,775	
Non-movers	564,265	85.9%	275,130	85.9%	289,140	85.9%
Movers	92,750	14.1%	45,110	14.1%	47,640	14.1%
Total - Mobility status 5 years ago	626,945		304,855		322,085	
Non-movers	369,830	59.0%	179,755	59.0%	190,080	59.0%
Movers	257,110	41.0%	125,105	41.0%	132,005	41.0%

Characteristics	Total		Male		Female	
	Number	%	Number	%	Number	%
Education						
Total population aged 15 years and older by highest certificate, diploma or degree	550,410		265,555		284,855	
No certificate, diploma or degree	108,670	19.7%	53,765	20.2%	54,900	19.3%
High school diploma or equivalent	157,430	28.6%	75,360	28.4%	82,070	28.8%
Postsecondary certificate, diploma or degree	284,310	51.7%	136,425	51.4%	147,880	51.9%
Labour force status						
Total population aged 15 years and older by labour force status	550,410		265,555		284,855	
In the labour force	376,195	68.3%	193,495	72.9%	182,695	64.1%
Employed	354,155	64.3%	182,080	68.6%	172,070	60.4%
Unemployed	22,040	4.0%	11,415	4.3%	10,625	3.7%
Not in the labour force	174,215	31.7%	72,055	27.1%	102,165	35.9%
Participation rate	68.3%		72.9%		64.1%	
Employment rate	64.3%		68.6%		60.4%	
Unemployment rate	5.9%		5.9%		5.8%	
Income of individuals in 2010						
Total income in 2010 of population aged 15 years and older	550,410		265,555		284,860	
Without income	27,425	5.0%	13,030	4.9%	14,390	5.1%
With income	522,985	95.0%	252,525	95.1%	270,465	94.9%
Median income (\$)	\$ 30,461		\$ 36,062		26,027	
Average income (\$)	\$ 38,517		\$ 44,862		32,592	
After-tax income in 2010 of population 15 years and older	550,410		265,550		284,860	
Without after-tax income	27,505	5.0%	13,025	4.9%	14,480	5.1%
With after-tax income	522,910	95.0%	252,530	95.1%	270,380	94.9%
Median after-tax income	\$ 27,229		\$ 31,501		\$ 23,821	
Average after-tax income	\$ 31,983		\$ 36,505		\$ 27,759	
Income of households in 2010						
Median household total income	\$ 58,513					
Average household total income	\$ 73,555					
Median after-tax household income	\$ 51,038					
Average after-tax household income	\$ 61,068					
Income of individuals in 2010						
Population in private households for income status	664,580		324,005		340,580	
In low income in 2010 based on after-tax low income measure	108,965	16.4%	49,400	15.3%	59,520	17.5%
Less than 18 years	31,650	22.4%	16,065	22.2%	15,590	22.6%
18 to 64 years	65,215	15.0%	29,505	13.9%	35,715	16.1%
65 years and older	12,090	13.7%	3,875	10.0%	8,215	16.5%

Note: To ensure confidentiality, the counts presented in the table, including totals, are randomly rounded either up or down to a multiple of '5' or '10': counts greater than 10 are rounded up or down to a multiple of 5; counts less than 10 are rounded to either a 0 or a 10. As a result, when these data are summed or grouped, the total counts may not match the individual counts since totals and sub-totals are independently rounded. Similarly, percentages, which are calculated on rounded data, may not necessarily add up to 100%.

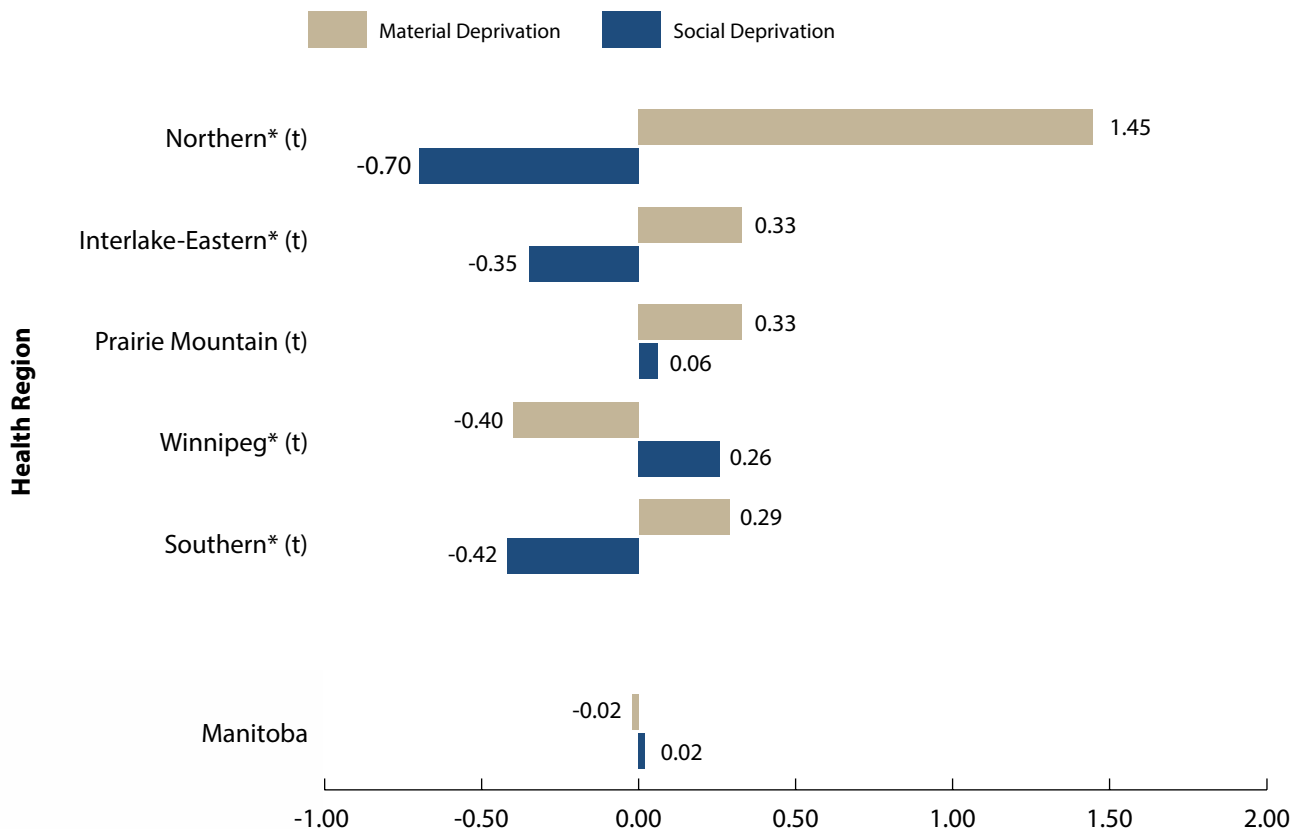
DEPRIVATION INDEX

Deprivation index is a composite indicator reflecting the deprivation of goods and conveniences that are part of modern life and the deprivation of relationships among individuals within the family and in the workplace and community. Two deprivation measures can be calculated: material deprivation and social deprivation. According to the Manitoba Centre for Health Policy (2013), “The material deprivation index includes average household income, the unemployment rate of the population aged 15 years and older, and the proportion of the population aged 15 years and older without high school graduation. The social deprivation index includes the proportion of the population aged 15 years and older who are separated, divorced, or widowed, the proportion of the population that lives alone, and the proportion of the population that has moved at least once in the past five years. Scores on these indices range from –5 to +5. Lower scores (e.g., below zero) indicate better status (less deprivation), while scores higher than zero indicate worse status. Population-weighted scores for the social and material deprivation indices were calculated for the 2006 Census.”

- The Region had the best (lowest) score on material deprivation but the worst score on social deprivation across health regions in the province. (see **Figure 4.3.A**)
- Within the Region, St. Boniface E, St. Vital S, Seven Oaks N, Inkster W, and River East N had better (lower) scores on both material and social deprivation than Manitoba overall, while Inkster E, River East S, Point Douglas N, Point Douglas S, and Downtown E had worse (higher) scores on both. (see **Figure 4.3.B**)

Figure 4.3.A

Material and Social Deprivation Values by Health Region, Canadian Census 2006



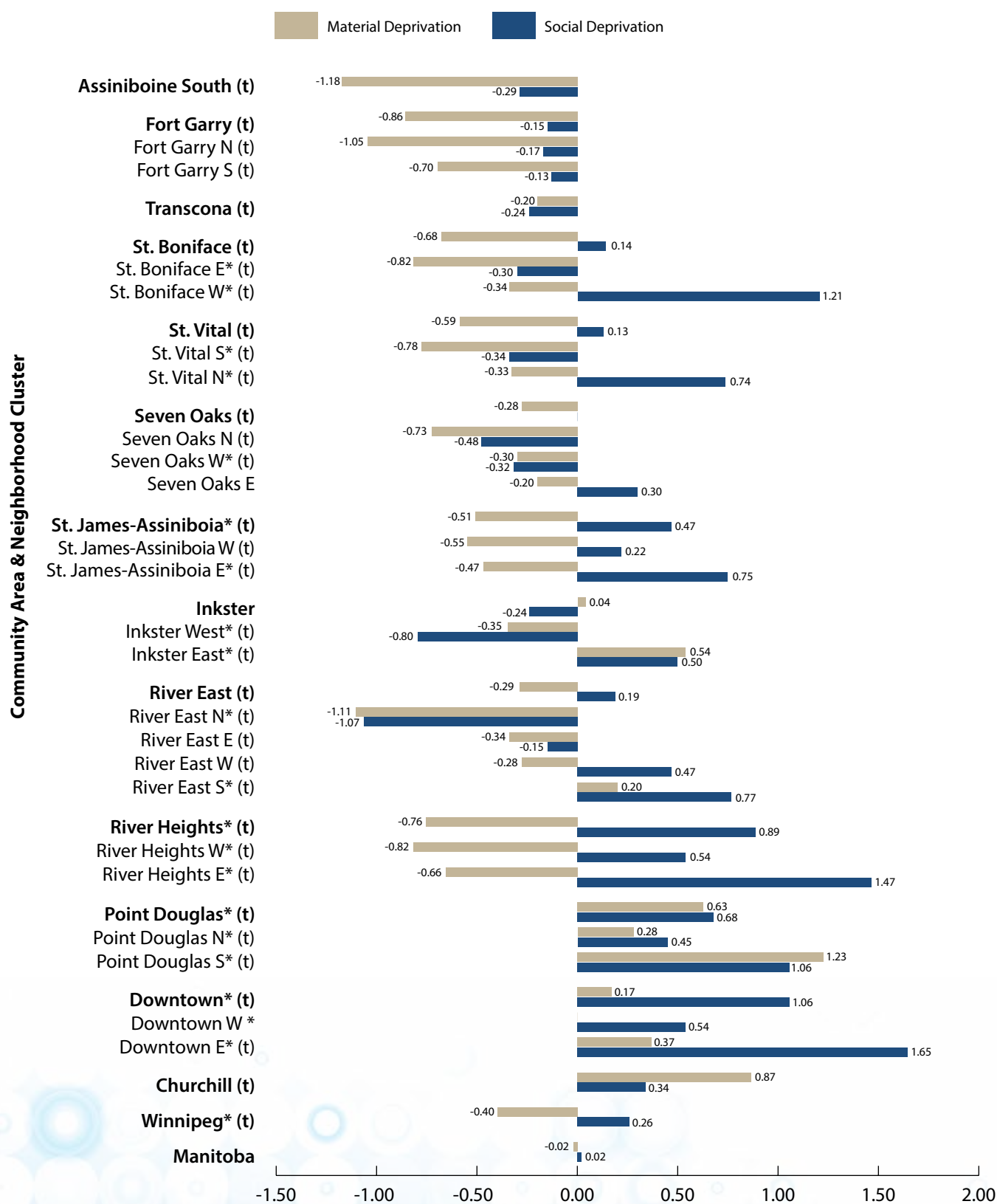
Source: Manitoba Centre for Health Policy, 2013

* Indicates area's rate for social deprivation was statistically different from Manitoba average

't' indicates area's rate for material deprivation was statistically different from Manitoba average

Figure 4.3.B

Material and Social Deprivation Values by Winnipeg Community Area & Neighborhood Cluster, Canadian Census 2006



Source: Manitoba Centre for Health Policy, 2013

* Indicates area's rate for social deprivation was statistically different from Manitoba average

't' indicates area's rate for material deprivation was statistically different from Manitoba average

Chapter 5: Healthcare Access, Utilization, and Quality Across The Winnipeg Health Region

5.1 PHYSICIAN SERVICES

- In 2011/12, 14.6% of residents aged 12 years and older reported not having a regular medical doctor and 53% of them were looking for one. (Figure A5.1.1.a1)
- Ambulatory care is health care delivered on an outpatient basis (no need for an overnight stay in hospital). The utilization of ambulatory care is measured by: the percent of residents having at least one ambulatory visit (use of a physician) and the number of ambulatory visits per resident in a given year.
- Overall, the utilization of ambulatory care has been relatively stable:
 - The percent of residents having **at least one ambulatory visit** has slightly declined, from 84.7% in 2000/01 to 81.2% in 2011/12. Considering the inclusion of prenatal visits in the most recent calculation, the decrease might have been more significant. (Figure A5.1.2.a1)
 - On average, a resident had approximately **5 ambulatory visits a year**, a number slightly higher than the provincial average. There was a trend of declining number of ambulatory visits. (Figure A5.1.3.a1)
 - Of these ambulatory visits, about 5% were consultations (first referral only, or 0.31 per resident) with a specialist or a surgeon (ambulatory consultation). This number stabilized. (Figure A5.1.4.a1)
 - Virtually all Winnipeg residents (>97%) visit GPs/FPs within the city (location of visits to general and family practitioners). (Table A5.1.5.a1)
 - The majority of the Region's residents who had 3 or more ambulatory visits received at least 50% of their care from the same physician (majority of care): 69% in 2000/01 and 75% in 2011/12. (Figure A5.1.6.a1)
- There was little variation in ambulatory visits or consultations across the communities in the Region, although the number of ambulatory visits and consultations in Churchill was lower than that in other community areas. (Figures A5.1.3.a2 and A5.1.4.a2)
- The **top five (5) specified reasons for ambulatory visits** were respiratory, mental illness, circulatory, and health status and contact. (Figure A5.1.7.a1)
- **Ambulatory care sensitive conditions (ACSCs)** are a group of chronic conditions that usually do not need to advance to hospitalization if they are managed appropriately through ambulatory care. "Hospitalization-for-ACSCs" is an indirect measure of ambulatory care quality. The proportion of hospitalization-for-ACSCs among residents aged 75 years and younger decreased over time, from 6.6 per 1,000 in 2000/01 to 4.1 per 1,000 in 2011/12, indicating an improvement in ambulatory care in the Region. However, this remains a challenge in low income communities (i.e., Churchill, Point Douglas South, and Downtown East) where hospitalizations-for-ACSCs are high. (Figure A5.1.8.a3)

5.2 HOSPITAL SERVICES

- In 2011/12, 5.5% (crude rate) of Winnipeg residents and 11.1% (crude rate) of Churchill residents were hospitalized at least once.¹ (Figure A5.2.1.a1)
- Of all hospitalizations (sex and age adjusted) made by every 1,000 residents in 2011/12, 65.4 were inpatient hospitalizations (ranging from 59.6 in Assiniboine South community area to 92.5 in Point Douglas community area) and 65.3 were day surgeries in Winnipeg (ranging from 59.8 in Inkster and 72.7 in St. James-Assiniboia); Churchill had the highest inpatient hospitalizations (200.8 per 1,000 residents) and the highest day surgeries (109.3 per 1,000 residents). (Figures A5.2.1.a3 & A5.2.2.a3)
- More than 95% of Winnipeg residents went for hospitalizations in the city (hospital location). In 2011/12, 57% of Churchill residents went to Winnipeg for hospitalizations and 5% went to hospitals in other RHAs or other province(s). (Figure A5.2.3.a1) Many medical services and procedures are only available in Winnipeg hospitals. About one third of patients in Winnipeg hospitals come from other RHAs in the province or from other province(s) (hospital catchment). (Figure A5.2.4.a1)

¹ Fransoo R, Martens P, The Need To Know Team, Prior H, Burchill C, Koseva I, Bailly A, Allegro E. The 2013 RHA Indicators Atlas. Winnipeg, MB. Manitoba Centre for Health Policy, October 2013.

- In Winnipeg, 199 hospital days per 1,000 WRHA residents were used for inpatient hospitalizations lasting from one to 13 days (hospital days used for short stays) while 477 days per 1,000 WRHA residents were used for those lasting for more than 13 days (hospital days used for long stays) in 2011/12. In Churchill, 480 hospital days per 1,000 Churchill residents were used for inpatient hospitalizations lasting from one to 13 days, while 388 days per 1,000 Churchill residents were used for those lasting for more than 13 days.
- The most frequent reasons for inpatient hospitalizations and day surgeries (causes of hospitalizations) were digestive, pregnancy and birth, circulatory, cancer, health status and contact (i.e., issues not necessarily connected to a specific diagnosis or disease), genitourinary and breast, respiratory, injury and poisoning, eye disorders, musculoskeletal, ill-defined conditions (i.e., specific problems could not be assigned to a specific disease category), and all others. (Figure A5.2.7.a1)
- In 2011/12, 7.3% of hospitalized patients in Winnipeg and 8.5% of those in Churchill were readmitted within 30 days of discharge (hospital readmission). Hospital readmission rate varied across the Region, ranging from 5.7% in St. James-Assiniboia and 9.0% in Downtown East and related to income. (Figure A5.2.8.a2)

5.3 HOME CARE

- In 2012/13, an average of 14,683 clients received home care services each month in the Region, accounting for 60% of the total home care clients (n=24,514) in Manitoba. (Figure A5.3.1.a1)

5.4 PERSONAL CARE HOMES (PCHs)

In 2011/12, 3% of Winnipeg residents aged 75 years and older were newly admitted to PCHs (incidence).¹ The median waiting time was 3.5 weeks for those admitted from hospital and 7 weeks for those from community. Overall, the proportion of PCH residents requiring high level care increased. In 2011/12, no residents were admitted for level 1 (the lowest level of) care, and of those admitted to PCHs,

- 18.0% did not require close supervision (Level 2N);
- 4.5% required close supervision due to behavioral issues (Level 2Y);
- 55.6% did not require close supervision (Level 3N);
- 12.9% required close supervision due to behavioral issues (Level 3Y);
- 9.0% required the highest level care (Level 4).

Overall, 11.5% of Winnipeg residents aged 75 years and older and 27.8% of those in Churchill lived in PCHs in 2011/12 (prevalence). There was a “w” shape distribution according to the order of median household income: Assiniboine South and Downtown had the highest percentages, followed by Seven Oaks and St. James-Assiniboia. (Figure A5.4.2.a1)

5.5 PRESCRIPTION DRUG USE (PHARMACEUTICAL SERVICE)

5.5.1 ANTIDEPRESSANT PRESCRIPTION FOLLOW-UP

Although the association between antidepressant use and suicide remains controversial, adequate follow-up is an important precautionary step for patient safety. However, only 57% of patients receiving antidepressants during 2007/08-2011/12 had 3 or more physician visits within four months following the prescription for an antidepressant. (Figure A5.5.1.a1)

5.5.2 ASTHMA CONTROLLER MEDICATIONS

Among asthma patients (e.g., who receive 2 or more quick-relief medications or reliever medications), about two thirds received long-term controller medications which prevent asthma symptoms from occurring. (Figure A5.5.2.a1) Little variation is seen across the communities. (Figure 5.5.2.a3)

¹ Fransoo R, Martens P, The Need To Know Team, Prior H, Burchill C, Koseva I, Bailly A, Allegro E. The 2013 RHA Indicators Atlas. Winnipeg, MB. Manitoba Centre for Health Policy, October 2013.

5.5.3 BENZODIAZEPINES PRESCRIBING FOR COMMUNITY-DWELLING SENIORS

Benzodiazepines are a class of psychoactive drugs and are used for treating medical conditions including anxiety, seizures, panic disorder, and alcohol dependence. Benzodiazepines are generally safe and effective in short-term use, but there are concerns about the adverse effects of long-term use. In 2011/12, 20.5% of community-dwelling seniors (aged 65 years and older) were inappropriately prescribed benzodiazepines, ranging from 10.2% (in Inkster West) to 27.5% (in St. Boniface West). The percentage was in the range reported elsewhere.¹ (Figure A5.5.3.a3)

5.6 OTHER MEDICAL SERVICES

5.6.1 DENTAL EXTRACTIONS

Removal of teeth from the mouth in hospital is often required for young children with severe tooth decay. On average, 6.6 dental extractions were performed in 2007/08-2011/12 for every 1,000 children aged 6 years and younger - a number only slightly lower than that in 2002/03-2006/07 (7.0). There was substantial variation across the communities by geography (communities in the central area of Winnipeg had higher numbers of dental extractions in those aged 5 years and younger) and by income (the lower the income of the area, the higher number of dental extractions). (Table A5.6.1.a1)

5.6.2 DIABETES CARE-EYE EXAMINATIONS

Regular eye examination (i.e., every 2-3 years for persons with diabetes aged 20-64 years and annually for those aged 65 years and older²) is important for the prevention and early detection of diabetic eye problems that may lead to visual loss or blindness. However, less than 40% of adult diabetic patients in the Region had an eye exam in 2011/12, although the percent was higher than those in previous years. (Figure A5.6.2.a1) Residents living in high income communities were more likely to have an eye examination. (Figure A5.6.2.a3) In Canada, the percent of adult diabetic patients having eye examinations in the past two years was lowest in Manitoba (49%) in 2007.³

1 Tannenbaum C., Martin P., Tamblyn R., Benedetti A., Ahmed S. Reduction of Inappropriate Benzodiazepine Prescriptions Among Older Adults Through Direct Patient Education: The EMPOWER Cluster Randomized Trial. *JAMA Intern Med.* 2014;174(6):890-898.

2 Best G., Dennis M., Lee R., Smit H, Hudson C. *Care of the Patient with Diabetes: A Core Document of the Canadian Association of Optometrists.* Ottawa, 2008.

3 Canadian Institute for Health Information. *Diabetes care gaps and disparities in Canada.* Ottawa, 2009.

Appendix: Data Sources and Methods

This appendix outlines how Community Health Assessment (CHA) core indicators were decided on; the role of Local Health Involvement Groups (LHIGs) in choosing other indicators important to the communities within the Winnipeg Regional Health Authority (WRHA – the Region); the data sources for the WRHA's CHA (e.g., the 2013 RHA Atlas from MCHP, the national Canadian Community Health Survey); and, how the indicator data were analyzed.

1. INDICATOR SELECTION

1.1 COMMUNITY HEALTH ASSESSMENT NETWORK INDICATOR REVIEW COMMITTEE (CHAN-IRC)

Between June 2011 and February 2013, CHAN-IRC had regular meetings to select indicators for assessing community health in Manitoba using the following five criteria:

- **Importance and Relevance:** the indicator reasonably reflects efforts to reduce health risks and improve health status and health systems; and must be understandable, relevant and useful for health planning;
- **Validity:** the indicator actually measures what it is claiming to measure;
- **Possibility:** the indicator must be currently collectable at both the health authority and provincial level and supports meaningful comparisons over time and place;
- **Meaning:** the phenomena being measured by the indicator is something that the health system can change; and, the indicator must be sensitive enough to reflect changes in the phenomena it is intended to measure;
- **Implications:** the indicator is amenable to action and supports evidence to motivate change.

Indicators meeting all of the above criteria were defined as **core indicators**; these were the criteria which the Region was obligated to reported on. Optional indicators may or may not meet all of the criteria identified above. If several indicators meeting all criteria were available on the same topic, a decision was made on which was the best indicator for measuring the topic and the other similar indicators not used as core were moved to the optional list. Many important CHA indicators were not placed on the core list as the data were not available or relevant for all regions in the Province. Indicators that did not meet all of the criteria, especially those which have no or limited relevance for regions' CHA and are not amenable to action were removed from the optional list.

1.2 COMMUNITY CONSULTATION

In the fall of 2013, two consultation meetings were held with each of six Community Health Advisory Committees (CHACs) or Local Health Involvement Groups (LHIGs) with representatives from all 12 WRHA Community Areas. The primary objective of the meetings was to seek CHAC representatives' input in selecting optional indicators for the Region's CHA report. Representatives were asked to rank and choose the five (5) most important indicators from the CHAN-IRC list of optional indicators for health status and non-medical determinants of health domains (i.e., health behaviors, prevention, and socio-economic status).

As a result of these meetings with the LHIGs, the following optional indicators were accepted for inclusion in the WRHA's 2014 CHA report:

Health Status

- Potential Years of Life Lost: cancer deaths
- Potential Years of Life Lost: respiratory disease deaths
- Top five causes of child mortality
- Potential Years of Life Lost: circulatory disease deaths

Non-medical Determinants of Health

- Deprivation Index
- Socio-Economic Factor Index (SEFI)
- Life stress
- Percentage (%) of population scoring high on Work Stress Scale
- Average household income

Data for these indicators are described in Volume 1 (WRHA main CHA report) but details for the indicators are not in Volume 2, individual indicator details.

Table A1.
Indicators reported in the 2014 WRHA CHA

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SF36 - General Mental Health	C-32	28
SF36 - Physical Functioning	C-31	28
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Total Mortality Rate		28
Top 10 Causes of Mortality	D-41	28
Life Expectancy at Birth	D-40	29
Infant Mortality Rate	D-33	30
Child Mortality Rate	D-34	30
Premature Mortality Rate	D-42	30
Top 10 Causes of Premature Mortality	D-43	31
Potential Years of Life Lost (PYLL)	D-44	31
Top 5 Cancer Mortalities	D-36	33
Injury Deaths	D-37/D-38	33
Suicide Deaths	D-39	33
Chronic Disease		34
Total Respiratory Disease Prevalence	B-10	34
Hypertension Incidence		34
Hypertension Prevalence	B-15	34
Diabetes Incidence	B-12	34
Diabetes Prevalence	B-13	34
Lower Limb Amputation due to Diabetes	B-14	34
Ischemic Heart Disease (IHD) Incidence		35
Ischemic Heart Disease (IHD) Prevalence	B-17	35
Acute Myocardial Infraction (AMI) Event Rate	B-16	35
Stroke Event Rate	B-18	35

Indicator	CHAN Indicator Reference	Page #
Dementia Prevalence	B-25	36
Osteoporosis Prevalence	B-8	36
Mental Health and Substance Abuse		36
Prevalence of Mood Disorders (Depression & Anxiety)	B-23	36
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Breastfeeding Initiation	E-55	39
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Health behaviors, preventive services, and socio-economic status		40
Health Behaviors		40
Tobacco Smoking	E-53	40
Alcohol Use	E-52	42
Fruit & Vegetable Consumption	E-51	44
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Cervical Cancer Screening (PAP test)	E-61	47
Inadequate Prenatal Care	F-79	47
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Median Income: Individuals & Households	F-65	50
Labor Force Participation Rate	F-67	50
Unemployment Rates	F-70	50
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Deprivation Index	A-2	53

Indicator	CHAN Indicator Reference	Page #
Healthcare access, utilization, and quality		55
Physician Service		55
Looking for a Regular Medical Doctor	I-96	55
Use of Physicians	I-87	55
Ambulatory Visit	I-88	55
Ambulatory Consultation	I-89	55
Location of Visits to General Practitioners /Family Physicians	I-91	55
Majority of Care	I-90	55
Most Frequent Reasons for Ambulatory Visits		55
Ambulatory Care Sensitive Conditions	K-101	55
Hospital Service		55
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Causes of (Reasons for) Hospitalization	L-128	55
Hospital Location and Catchment	I-86	55
Days Used For Short Stay Hospitalizations (0-13 days)	L-129	55
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Home Care Prevalence (open cases)	L-140	55
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Antidepressant Prescription Follow Up	J-97	56
Asthma Care: Controller Medication	J-98	56
Prescription of Benzodiazepines for Community-Dwelling Seniors	J-100	56
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Population and community characteristics		
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2. DATA SOURCES

2.1 THE 2013 RHA INDICATORS ATLAS

The 2013 RHA Indicators Atlas produced by the Manitoba Centre for Health Policy (MCHP) measures health status and health services utilization in the province and health regions. This report was developed using the Population Health Research Data Repository (PHRDR), a collection of more than one hundred administrative databases from Manitoba's health, social service, education, and justice sectors. The full atlas report with data extractions for the indicators is available at the MCHP website (<http://mchp-appserv.cpe.umanitoba.ca/deliverablesList.html>).

2.2 CANADIAN COMMUNITY HEALTH SURVEY (CCHS)

CCHS is a national cross-sectional survey on residents' health and health determinants, and health care utilization. In Manitoba, about 7,500 residents are surveyed annually for each CCHS cycle. CCHS is designed to collect health data at the provincial and health region levels. While the results for the entire Winnipeg Regional Health Authority are valid and reliable, caution is needed when interpreting comparisons among community areas (CAs) and neighborhood clusters (NCs) since samples may not represent CAs/NCs well. Several CCHS cycles were combined to produce more stable calculations when necessary. Detailed information about the survey is available from Statistics Canada's website (<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3226>). The Health Information Management Branch of Manitoba Health analyzed the CCHS survey data.

2.3 MANITOBA HEALTH REPORTS

Several Manitoba Health reports, including the 2012/13 Annual Report (Health Information Management Branch) Annual Immunization Surveillance Report (2011) (<http://www.gov.mb.ca/health/publichealth/surveillance/mims/reports/2011.pdf>) and the Injury Report by Manitoba's Public Health Branch, are sources of data on relevant indicators.

2.4 POPULATION PROJECTIONS

The George and Fay Yee Centre for Healthcare Innovation's Data Science Platform developed population projections for the province and health regions. Future populations under different scenarios were projected based on the characteristics of past populations registered with Manitoba Health, using the cohort component modeling method. The full report is available at: <http://chimb.ca/events/149>

2.5 HEALTHY CHILD MANITOBA OFFICE

Data on the Early Development Instrument (EDI) and Family First risk factors are provided by the Healthy Child Manitoba Office. For more details about the EDI program in Manitoba and other provincial reports on child health, please visit: <http://www.gov.mb.ca/healthychild/edi/>

2.6 CANCERCARE MANITOBA (CCMB) 2014 COMMUNITY HEALTH ASSESSMENT REPORT

Cancer screening, incidence and mortality data are provided by CCMB. The full report is available at: http://www.cancercare.mb.ca/resource/File/Epi-Cancer_Registry/CCMB_CHA_Report-2014.pdf

2.7 WRHA POPULATION AND PUBLIC HEALTH (PPH) PROGRAM

The PPH program has provided data from the Youth Health Survey and on sexually transmitted infections including chlamydia and gonorrhea (provided by Manitoba Health and including all reported cases of genital chlamydia or gonorrhea diagnosed among residents of the Region).

2.8 CENSUS DATA

The 2011 census data are used to describe population and community characteristics. Statistics Canada's analytical products for provinces and health regions are available at: <http://www12.statcan.gc.ca/health-sante/82-228/index.cfm?Lang=E>

2.9 STATISTICS CANADA HEALTH PROFILES

Statistics Canada's "Health in Canada" portal (<http://www.statcan.gc.ca/eng/health/index>) includes four products related to health data: Health Indicators, Health Reports, Health Profile, and Health Trends. The Health Profile allows us to compare a health region to its province, peer health regions, and Canada.

2.10 OTHER SOURCES

Heaman M, Kingston D, Helewa ME, Brownell M, Derksen S, Bogdanovic B, McGowan KL, Bailly A. Perinatal Services and Outcomes in Manitoba. Winnipeg, MB. Manitoba Centre for Health Policy, November 2012 (access at: http://mchp-appserv.cpe.umanitoba.ca/reference/perinatal_report_WEB.pdf)

Brownell M, Chartier M, Santos R, Ekuma O, Au W, Sarkar J, MacWilliam L, Burland E, Koseva I, Guenette W. How Are Manitoba's Children Doing? Winnipeg, MB. Manitoba Centre for Health Policy, October 2012 (access at: http://mchp-appserv.cpe.umanitoba.ca/reference/mb_kids_report_WEB.pdf)

3. DATA ANALYSIS

3.1 DISEASE OCCURRENCE MEASURES

There are several ways (i.e., rate, proportion, percentage) by which the occurrence of disease and health conditions may be measured. It is important to understand how to interpret each in order to obtain a fair description of where need exists so that we can make informed choices about how to meet these needs.

Incidence is the number of new cases diagnosed within a defined period of time divided by the size of the population at the risk of experiencing the disease/condition during this period. Incidence is a rate and expressed as new cases per person-year.

Prevalence is the proportion of the population that have a condition at a point in time (point prevalence) or over a defined period of time (period prevalence). All prevalence estimates used in this report are estimates of period prevalence. Prevalence does not have a dimension (or a unit) and is not a rate. For many conditions such as hypertension and diabetes, administrative databases can only capture those conditions that have been treated and recorded in claims data. Thus prevalence of these conditions is considered **treatment prevalence**, which is the proportion of the population that received some combination of physician visits, hospitalizations, and/or prescription drugs for a given disease in a given period of time. Because these estimates are derived using administrative databases, only those persons who have received health services or treatment for the disease (by visiting a doctor, being admitted to a hospital or having a prescription dispensed) are counted, but those who may have undetected disease, disease that does not require frequent medical care, and those not receiving the care they may need for their condition are not counted. This must be kept in mind when treatment prevalence is interpreted—proportions that change may mean that the disease is actually getting more or less common, or it may mean that more or less people are getting diagnosed or receiving care. For example, an increase in the treatment prevalence for hypertension could mean that more people are getting high blood pressure or that more people are having their high blood pressure diagnosed and treated appropriately. Sometimes, changes in physician billing or disease coding practices (e.g., when a new tariff for payment of fees is created) may also cause treatment prevalence to change even if the disease prevalence has not changed. For these reasons, sometimes it is not possible to be certain about the meaning of changes in treatment prevalence over time. Prevalence and treatment prevalence values are expressed as per 1,000 population or residents (or, per 10,000 or 100,000 population or residents).

Percentage is exactly the same idea as proportion (i.e., prevalence and treatment prevalence) but is expressed as % (by multiplying 100) and can vary between 0 and 100.

3.2 CRUDE AND ADJUSTED MEASURES

A crude measure is calculated by dividing a numerator (e.g., the total number of events) by an appropriate denominator (e.g., the total number of individuals in the population who are at risk for these events) and presented by using an appropriate constant (e.g., per 1,000 residents), without adjusting for the underlying population structure. Crude measures are recommended when the interest is the overall burden of disease in the population. This is usually the case for infectious diseases.

Adjusted measures are recommended when comparing rates/proportions of health outcomes among different populations (e.g., Winnipeg community areas) or comparing trends in a given population over time. Age- and sex-adjusted rates/proportions are the most common adjustments because many health conditions are related to age and sex. The process of age and sex adjustment removes differences in the age and sex compositions of two or more populations to allow comparisons between these populations independent of their age and sex structures. Most figures shown in the main report (Volume 1) and the individual indicators (Volume 2) use adjusted or standardized rates/proportions where possible.

3.3 SMALL NUMBER AND SUPPRESSION

The reader will note missing data by the absence of some bars (by CA or NC) in the charts. The administrative health and surveillance data used to describe these indicators can only be presented in aggregate form for the purposes of reporting, and only results with cell sizes of more than 5 can be reported (counts of zero can be reported, counts of 1-5 must be suppressed). The process of suppressing data is a standard convention and is done to protect the anonymity of individuals.

Estimation stability or reliability based on small numbers is another concern, in particular for Churchill where the size of population is so small (about 1000 persons). In general, estimates based on large numbers provide stable estimates of the true, underlying rates/proportions; those based on small numbers may fluctuate dramatically from year to year, or differ considerably from one small place to another small place, even when there is no meaningful difference. We encourage readers to keep this issue in mind when interpreting rates/proportions based on small numbers, particularly those for Churchill.

3.4 TIME TREND TEST

Several methods (i.e., Pearson's chi-squared test (χ^2), linear regression model, Poisson regression model, time series analysis) can be used to test time trends. We chose the Pearson's chi-squared test (χ^2) based on the feature of the data used in this report (aggregated data). Since only aggregated data for a few time periods are available for this report, the overall shape presented here may not accurately represent the trend of annual rates/proportions over a longer period of time.

Data for time trend testing might be obtained from multiple reports produced in past years. For certain indicators, there are time period gaps or overlaps. Case definition and calculation methods have evolved and, therefore, the temporal differences may reflect these changes. Rates or proportions might have been standardized according to Manitoba populations in different time periods, but we believe this has no significant impact on the standardization. However, caution is needed for interpretation when a small but statistically significant difference over time is observed.

3.5 ORDER OF COMMUNITY AREA (CA) AND NEIGHBORHOOD CLUSTER (NC)

In the charts, CAs and NCs are ordered by median household income (2006 census data). When CAs and NCs are presented in a single chart, NCs are placed under the corresponding CA that is ordered by median household income.

3.6 GEOGRAPHIC MAPPING

Rates/proportions were mapped using ArcGIS software by ESRI®. Rates/proportions are categorized into four (4) groups and the highest and lowest are labeled. Values for each category are not presented since those can be found in CA/NC charts, and the purpose of the map is to show general geographical variation.

3.7 HEALTH INEQUALITY MEASURES

Rate/proportion absolute difference and ratio

There are two ways to measure differences: by determining the (1) absolute difference and (2) the relative differences. It is recommended that both absolute and relative differences be reported. In this report, we calculated absolute difference and relative ratio between CA/NC with the highest median household income and CA/NC with the lowest median household income and between residents living in the highest income quintile and the lowest income quintile. Household incomes are grouped by dissemination areas (DAs) which are specified by Statistics Canada for the collection of census data. In turn, the median household incomes of DAs are ranked from poorest to wealthiest, and then grouped into five income quintiles Urban (U)1 being the poorest DAs and Urban (U)5 being the wealthiest DAs. Each income quintile subsequently contains approximately 20% of the population. The absolute difference and ratio in the distribution of the indicator values (by geography and income) are calculated based on aggregated data from existing reports. As a result, the significance of these measures has not been statistically tested.

3.8 COMPARE WITH OTHER HEALTH REGIONS WITHIN THE SAME PEER GROUP

Statistics Canada divides Canada's health regions into 10 peer groups. A peer group comprises health regions that have similar characteristics based on 24 socio-demographic variables from the 2006 Census and prominent geographic characteristics. The 10 peer groups are identified by letters A through J. WRHA is one of the 34 health regions in peer group A as shown in Map A1. Whenever possible, we compared health indicators between WRHA, Manitoba, Peer Group A, and Canada using data from Statistic Canada's Health Profile portal.

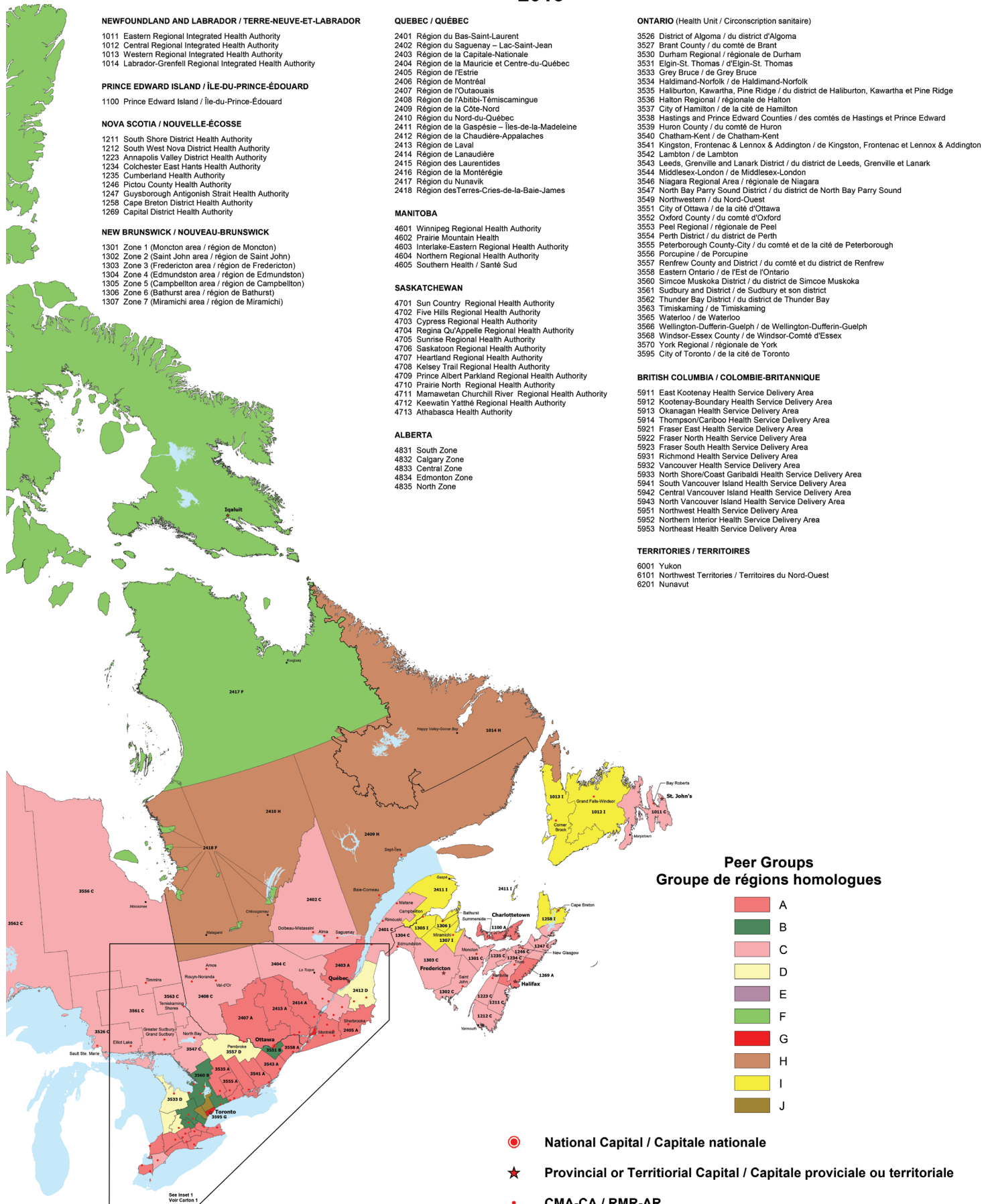
This is a detailed map of Canada, showing its provinces and territories. The map is color-coded and labeled with their respective abbreviations:

- Atlantic Provinces:**
 - New Brunswick (NB)
 - Prince Edward Island (PEI)
 - Quebec (QC)
 - Nova Scotia (NS)
- Central Provinces:**
 - Manitoba (MB)
 - Saskatchewan (SK)
 - Ontario (ON)
- Western Provinces:**
 - Alberta (AB)
 - British Columbia (BC)
- Territories:**
 - Yukon (YT)
 - Northwest Territories (NT)
 - Nunavut (NU)

The map also includes major cities, bodies of water, and a scale bar in kilometers (0 to 400 km). The map is divided into three sections: a top section showing the Atlantic and Central provinces, a middle section showing the Western provinces and territories, and a bottom section showing the Northwest Territories and Nunavut.

Source: Health regions: boundaries and correspondence with census geography, catalogue no. 82-402-X. Produced by the Geography Division for the Health Statistics Division, Statistics Canada, 2013.
Source : Régions sociosanitaires : limites et correspondance avec la géographie du recensement, catalogue no. 82-402-X. Préparé par la Division de la géographie pour la Division de la statistique de la santé, Statistique Canada, 2013.

Health regions / Régions sociosanitaires 2013





Community Health Assessment Report 2014

VOLUME 2: COMMUNITY HEALTH ASSESMENT INDICATORS

Winnipeg Regional Health Authority



Volume 2: Community Health Assessment Indicators

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OVERALL Description of Indicators:

Volume 2 of the Community Health Assessment is comprised of the indicators used to describe health and healthcare in the Winnipeg Regional Health Authority (the Region). Volume 2 provides detailed descriptions of most indicators. However, some indicators such as demographics are discussed in Volume 1 only.

Each indicator found in this volume is introduced by up to three sections of text:

DEFINITION

States the name of the indicator, what each indicator measures, the data source for the indicator and how and when it has been measured.

KEY FINDINGS

Includes comments on the time trend (if applicable), any significant differences in geographical distribution (presented for each indicator in Volume 2 by figure(s), table and/or map, and health inequality measures (if data available). The figures and tables of CAs and NCs are ordered according to the median income of households in the geographical area being reported on. The year(s) that rates are age- and/or sex-adjusted or standardized to are given in the definition section of each indicator.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

In this section, we have tried to interpret the data, including the limitations and public health implications. The interpretation is based on the perspective of a broad-based advisory committee and does not reflect the Region's overall organization's opinion or policy.

If the reader is in need of more information, please refer to the Appendix: Data Sources and Methods in Volume 1 of the 2014 Community Health Assessment.

**HEALTH STATUS ACROSS
THE WINNIPEG HEALTH REGION**

Winnipeg Regional Health Authority

Indicator: Self-Perceived Health

DEFINITION: In the Canadian Community Health Survey (CCHS), participants (age 12 years and older) were asked, “In general, would you say your health is: excellent, very good, good, fair, or poor?”. Respondents to the survey were given the clarification, “By health, we mean not only the absence of disease or injury but also physical, mental and social wellbeing.” Respondents were grouped into four categories based on their responses: (1) excellent, (2) very good, (3) good, (4) fair or poor. Responses of ‘Fair’ and ‘Poor’ were combined to avoid having to suppress data because of small numbers (e.g., where there are 5 persons or less reporting in an area).

NUMERATOR: All persons aged 12 years and older who gave one of the responses.

DENOMINATOR: All persons aged 12 years and older who responded to the survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008, 2009-2010 and 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- Fifty-eight (58%) of Winnipeg Regional Health Authority (the Region) residents aged 12 years and older reported very good or excellent health status in the period 2007-2012, compared to 62% in 2001-2005.
- Within the Region, there was significant geographic variation, with the highest percentage of residents reporting very good or excellent health status in Assiniboine South community area (70%) and the lowest percentage of residents reporting very good or excellent health status in Point Douglas community area (43%).
- Residents in the highest income neighborhood cluster (NC) (River East N) were 2.7 times more likely to report very good or excellent health status than those in the lowest income NC (Point Douglas S).

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

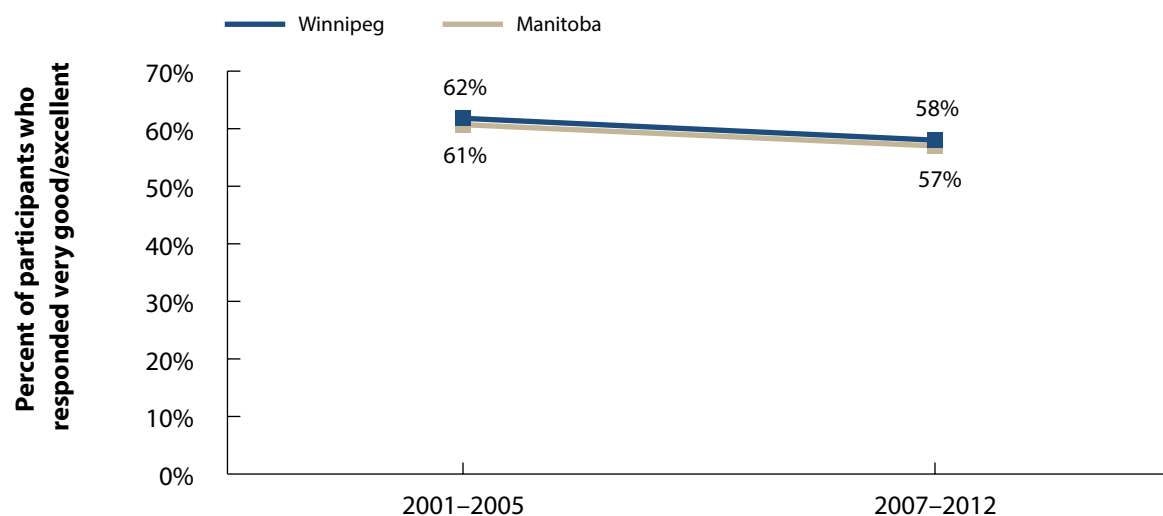
- Self-perceived health is a subjective measure of health; it predicts the overall health status of the population.¹
- Overall, the majority of the Region’s residents reported very good/excellent health status (58%). However, this measure of health is distributed unequally across the Region, with residents living in lower household income communities reporting a lower proportion of persons indicating very good or excellent health.

¹ *Self-perceived health* is one of the internationally leading health indicators reflecting a person’s subjective general perception of health. There is a sturdy evidence base to support that self-perceived health is a strong, independent, and reliable predictor of sickness and healthcare resource utilization. (Latham K., Peek CW. Self-rated health and morbidity onset among late midlife US adults. *J Gerontol Series B: Psych Sci Soc Sci* 2013; 68(1): 107-116; and, Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., Urponen, H., 1997. Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *J Clin Epidemiol.* 50 (5) 517-528.).

Figure A3.1.1.a1

Trends in Self-Perceived Health as Very Good/Excellent in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 12+, 2001–2005 & 2007–2012



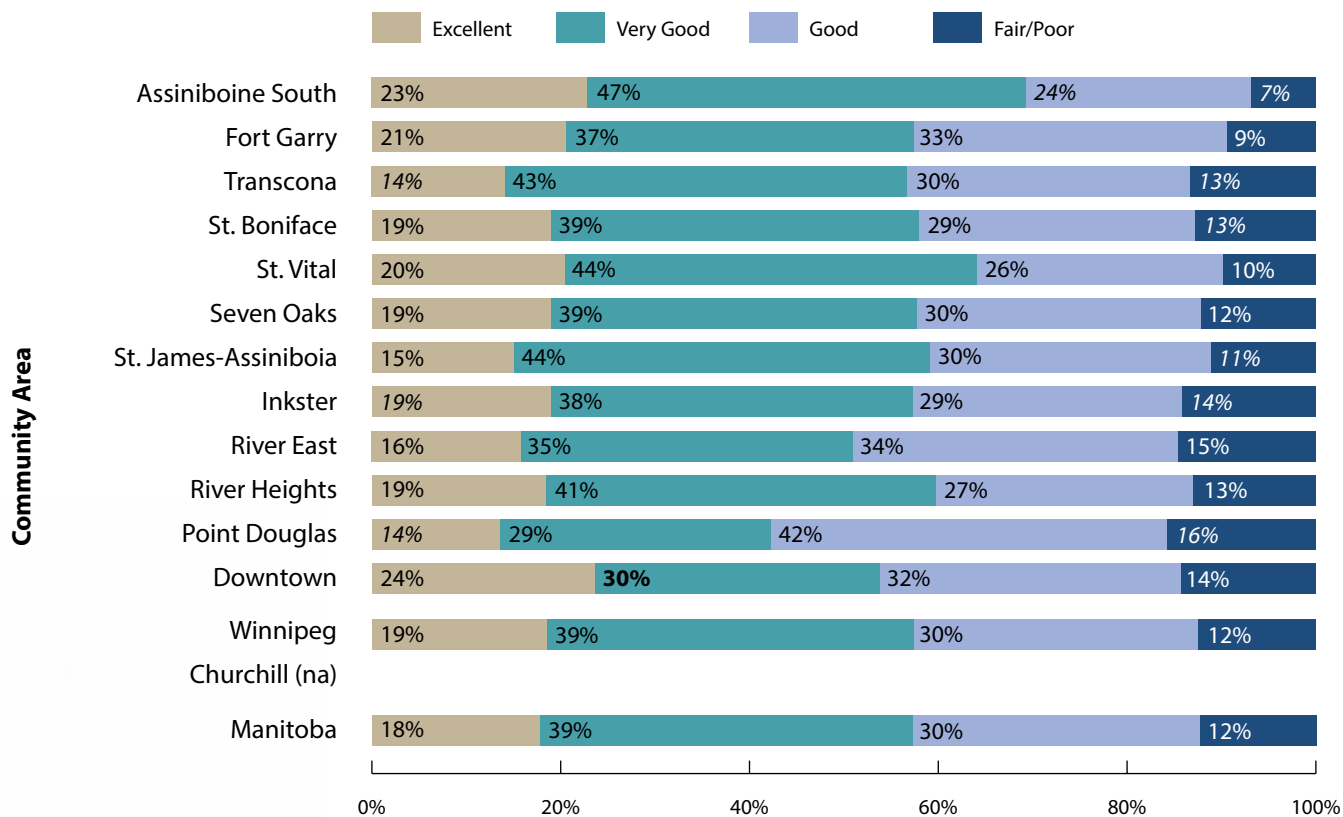
Sources: MCHP 2009 & CCHS 2007–2012

****The following charts of Community Area & Neighborhood Cluster are ordered by decreasing median household income.**

Figure A3.1.1.a2

Self-Perceived Health by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010 & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

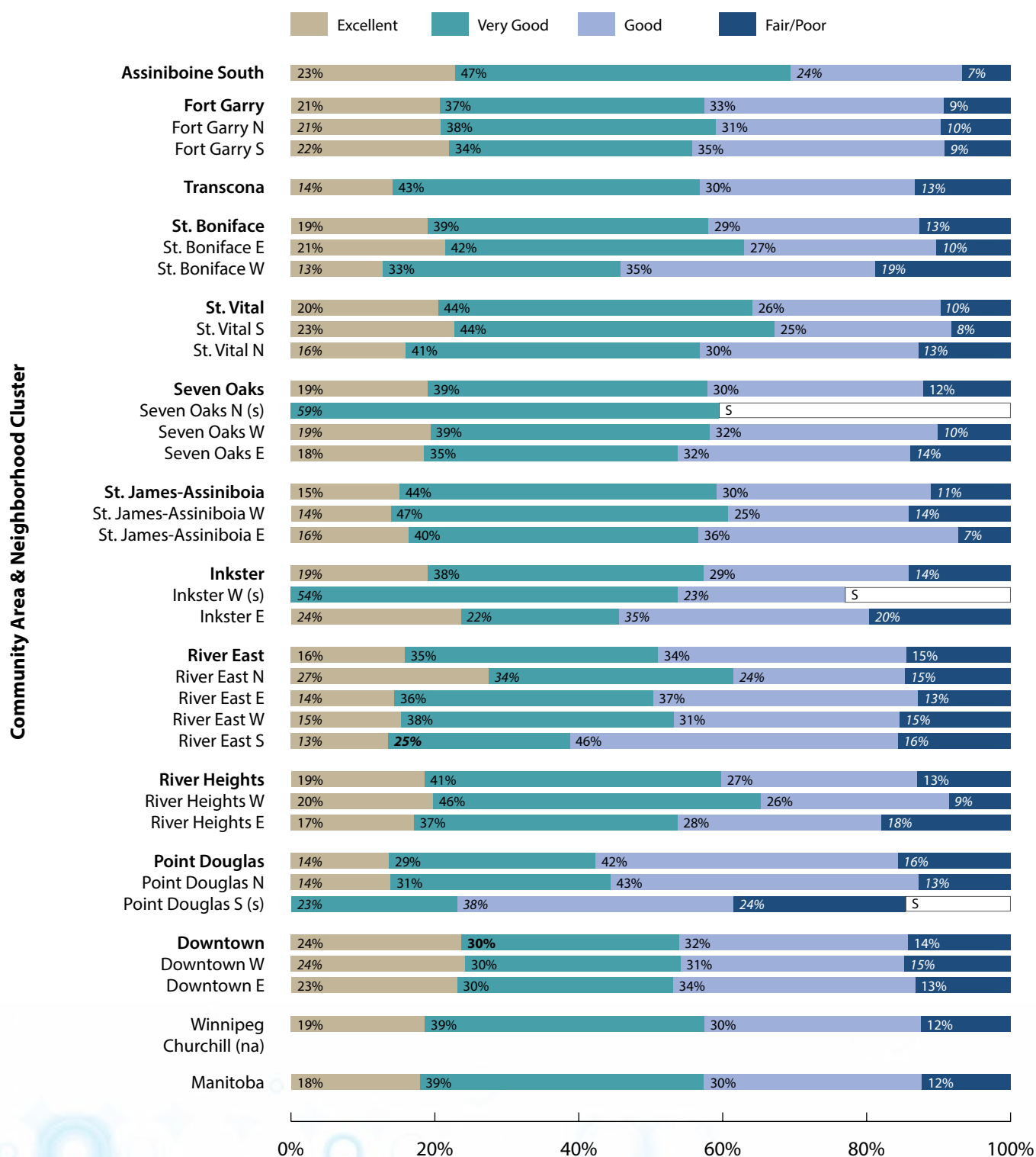
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A3.1.1.a3

Self-Perceived Health by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010 & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

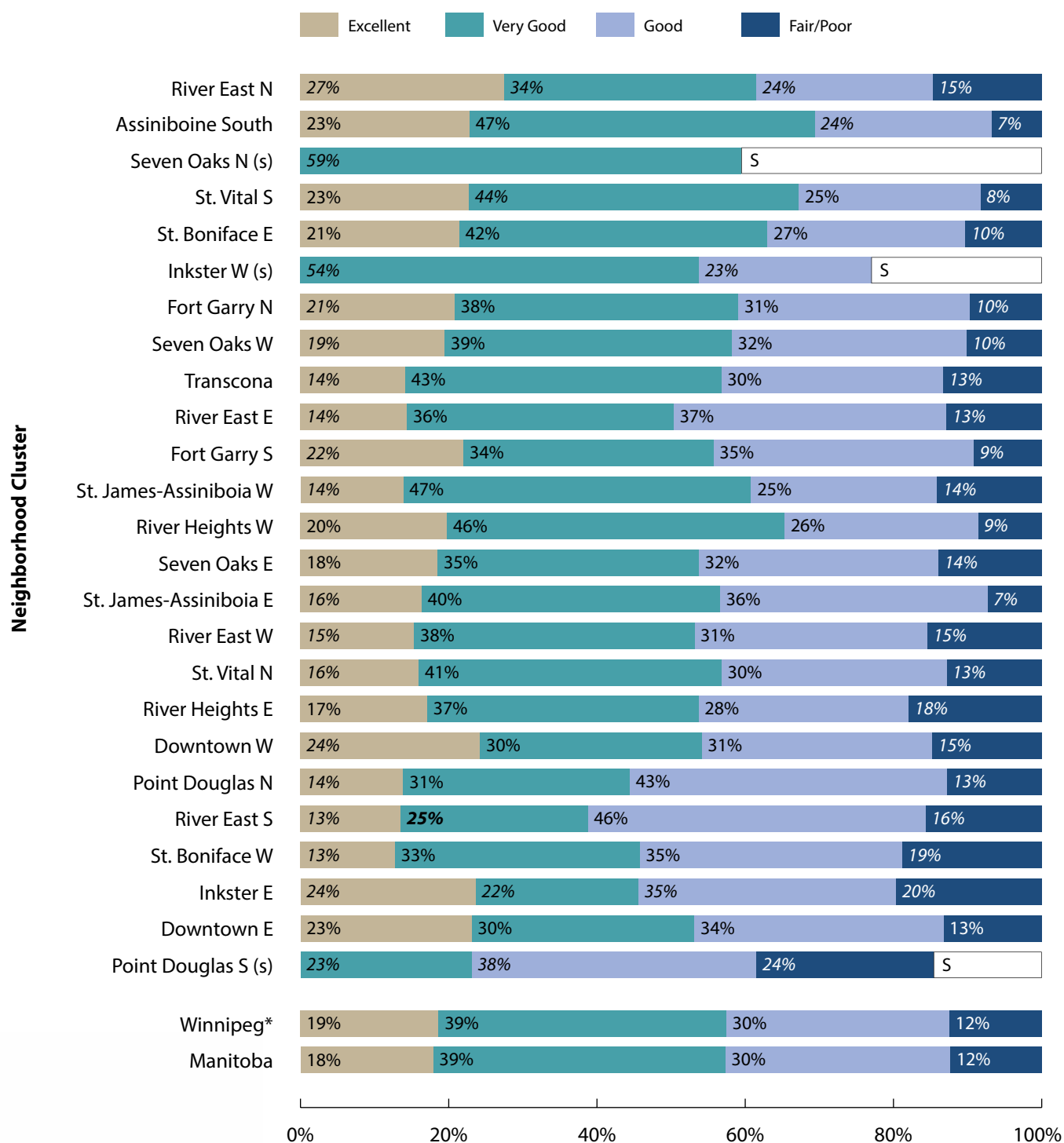
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A3.1.1.a4

Self-Perceived Health by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010 & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

*Excluding Churchill

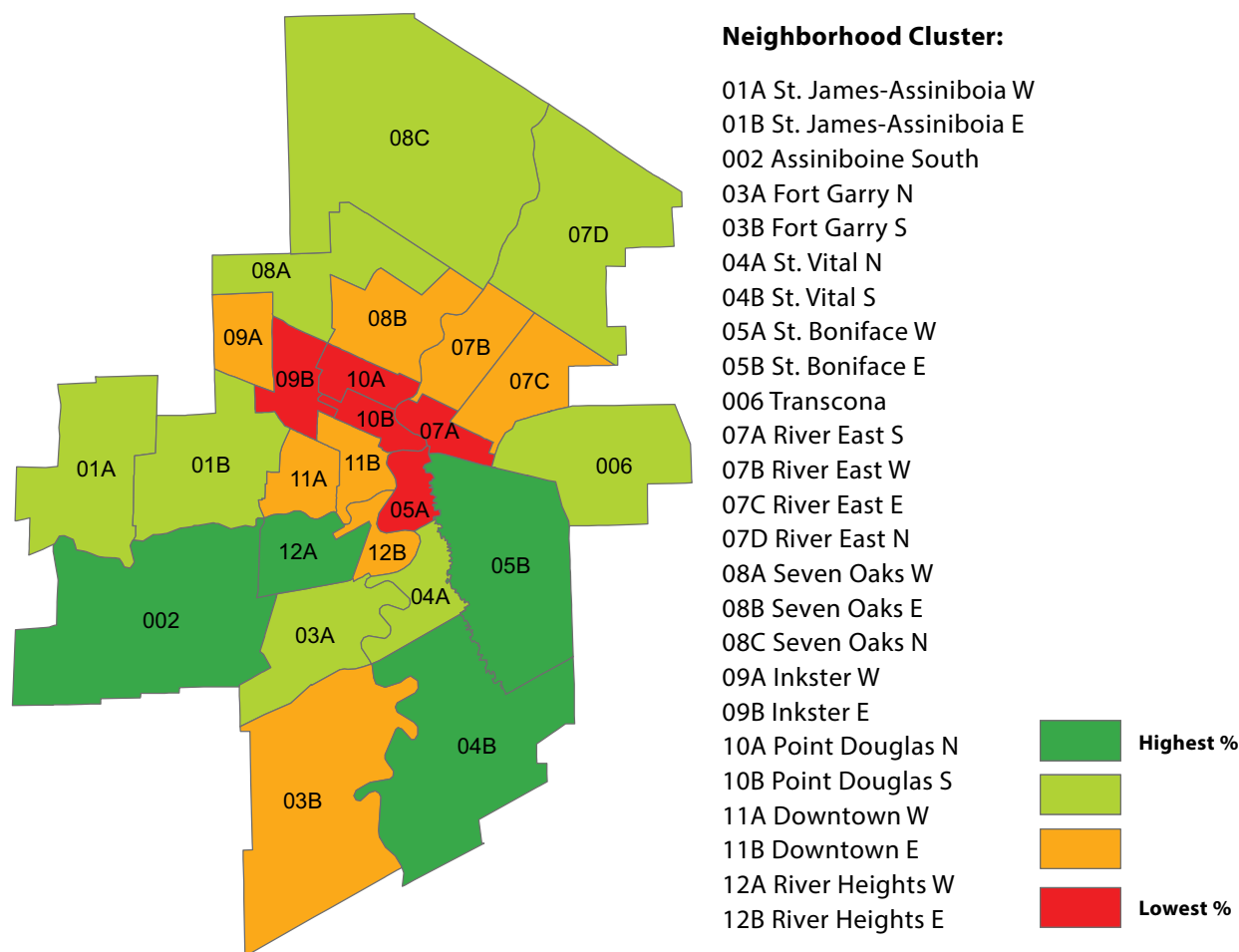
bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

Self-Perceived Health (Very Good/Excellent) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

Table A3.1.1.a1

Health Inequality in Self-Perceived Health (Very Good/Excellent), by Median Household Income

Health Inequality Measures	Time Period
	2007–2012 % in Very Good or Excellent Health
Highest median household income neighborhood cluster (NC) (River East N)	61%
Lowest median household income NC (Point Douglas S)	23%
Absolute difference (Highest income NC – Lowest income NC)	38%
Ratio (Highest income NC / Lowest income NC)	2.7

Source: Canadian Community Health Survey, 2007–2012



Indicator: SF-36 General Mental Health

DEFINITION: This indicator reports the population aged 12 years and older who perceived their own mental health status at different levels. General mental health scores are derived from the SF-36 questionnaire, a tool for measuring a person's perceived health status. The scale measures overall mental health on a scale of 0 to 100 (a higher score is better). Based on the distribution of scores, three groups were created with approximately one-third of respondents in each group: Low (score 0–79), Medium (score 80–91), and High (score 92–100).

NUMERATOR: All persons aged 12 years and older who gave one of the responses.

DENOMINATOR: All persons aged 12 years and older who responded.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCE: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2005, 2007-2008, and 2009-2010)

KEY FINDINGS:

- Overall, 38% of residents in the Winnipeg Regional Health Authority (the Region) aged 12 years and older reported a high score (92-100) for general mental health. The percentage ranged from 26% in St. Boniface West to 50% in Seven Oaks North.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

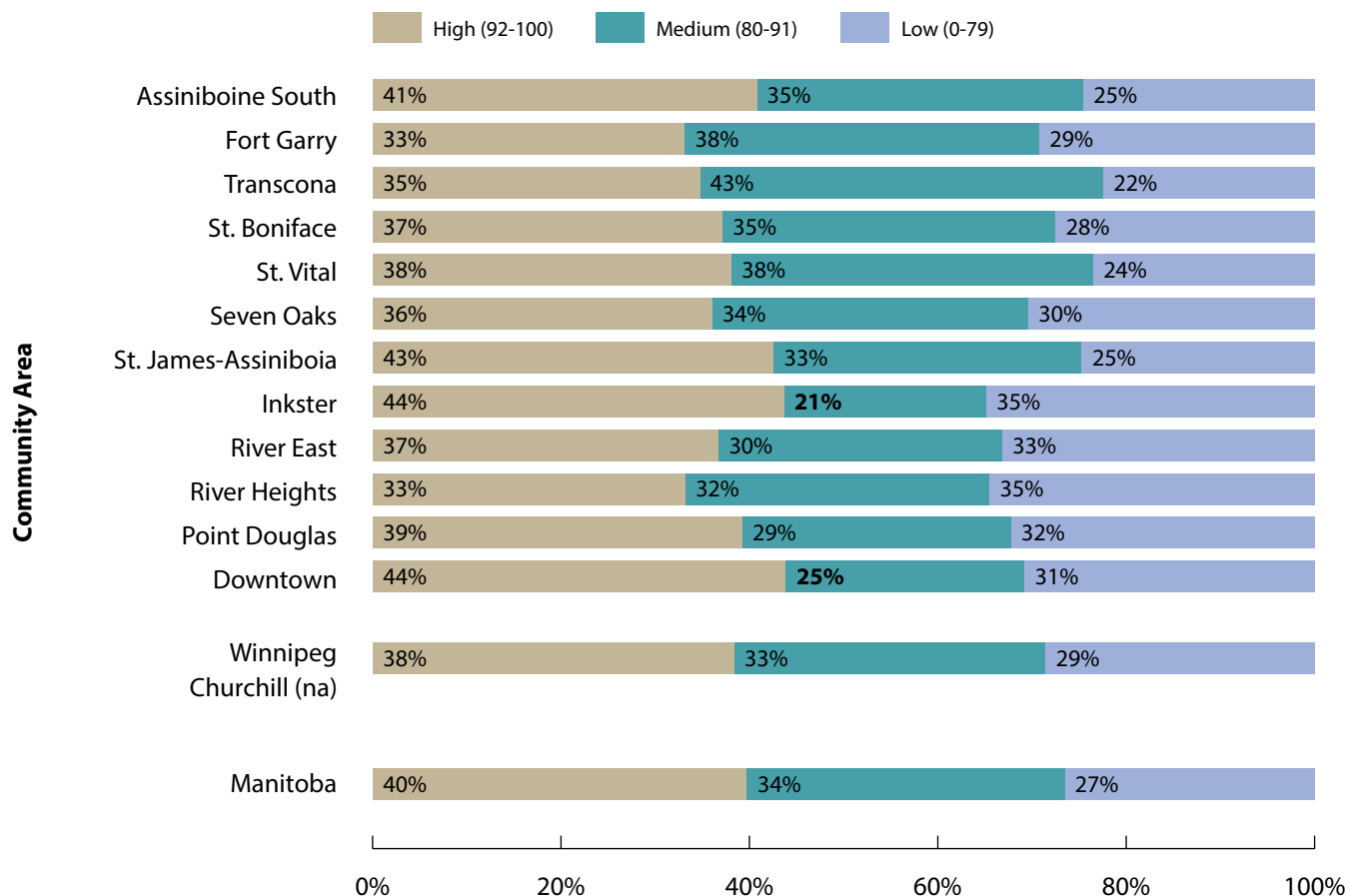
- This indicator is different from “self-rated/perceived mental health”, which is measured by asking participants a single question “In general, would you say your mental health is: excellent, very good, good, fair, or poor?” and is presented as the percentage for “excellent/very good”. General mental health is measured by asking 36 questions and responses to these items are used to score physical (4 scales) and mental health (4 scales).
- A large proportion of residents did not report a high score on general mental health [medium (90-91) 33% and low (0-79) 29%], indicating that mental health is an important challenge in the Region.

****The following charts of Community Area & Neighborhood Cluster are ordered by decreasing median household income.**

Figure A3.1.2.a1

SF-36 General Mental Health Status by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008, & 2009–2010



Source: Canadian Community Health Survey, 2005–2010

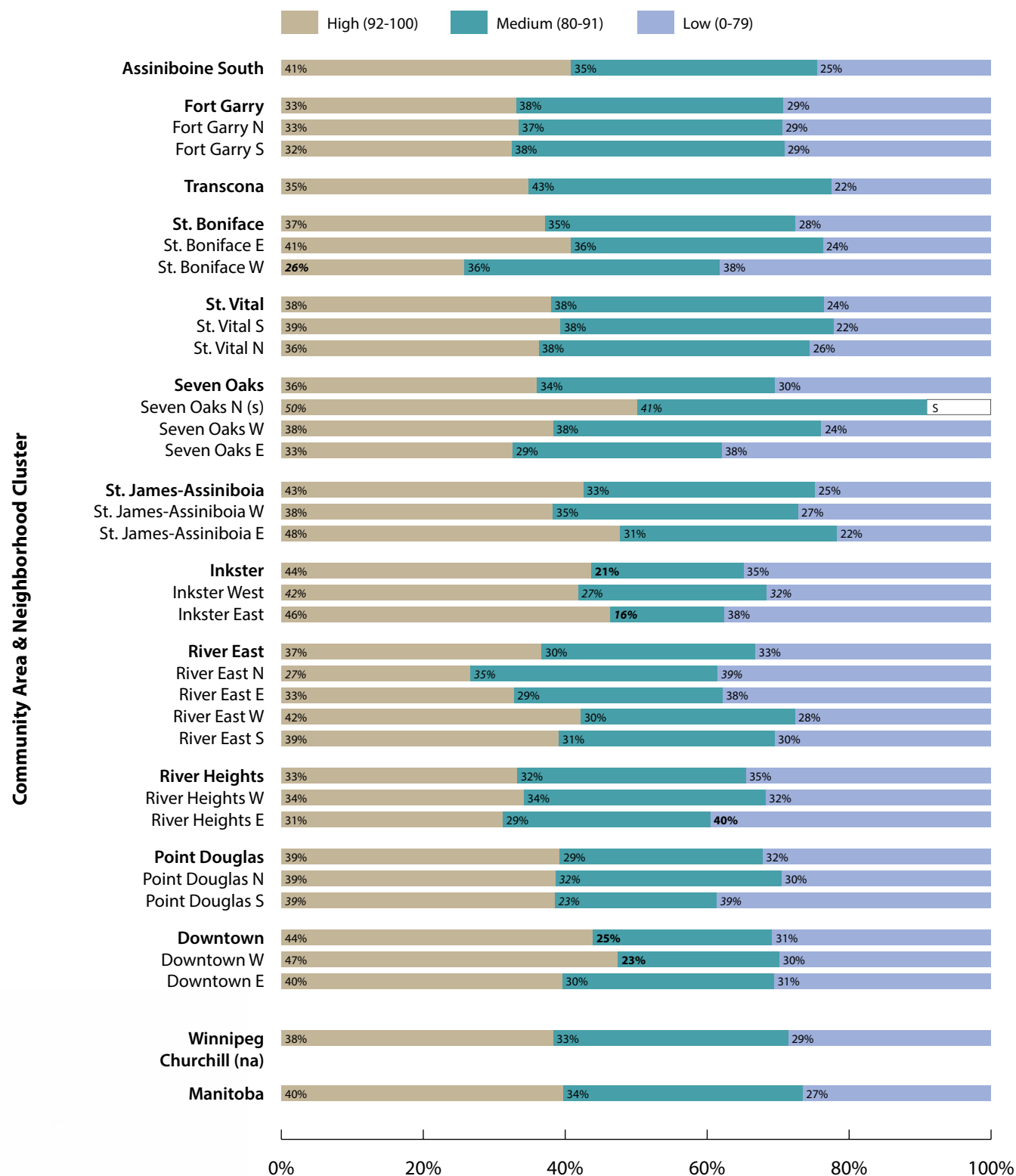
bold - indicates area's rate was statistically different from Manitoba Average

(na) - data unavailable

Figure A3.1.2.a2

SF-36 General Mental Health Status by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008, & 2009–2010



Source: Canadian Community Health Survey, 2005–2010

bold - indicates area's rate was statistically different from Manitoba Average*italics* - indicates a warning - the area's rate is highly variable and should be interpreted with caution

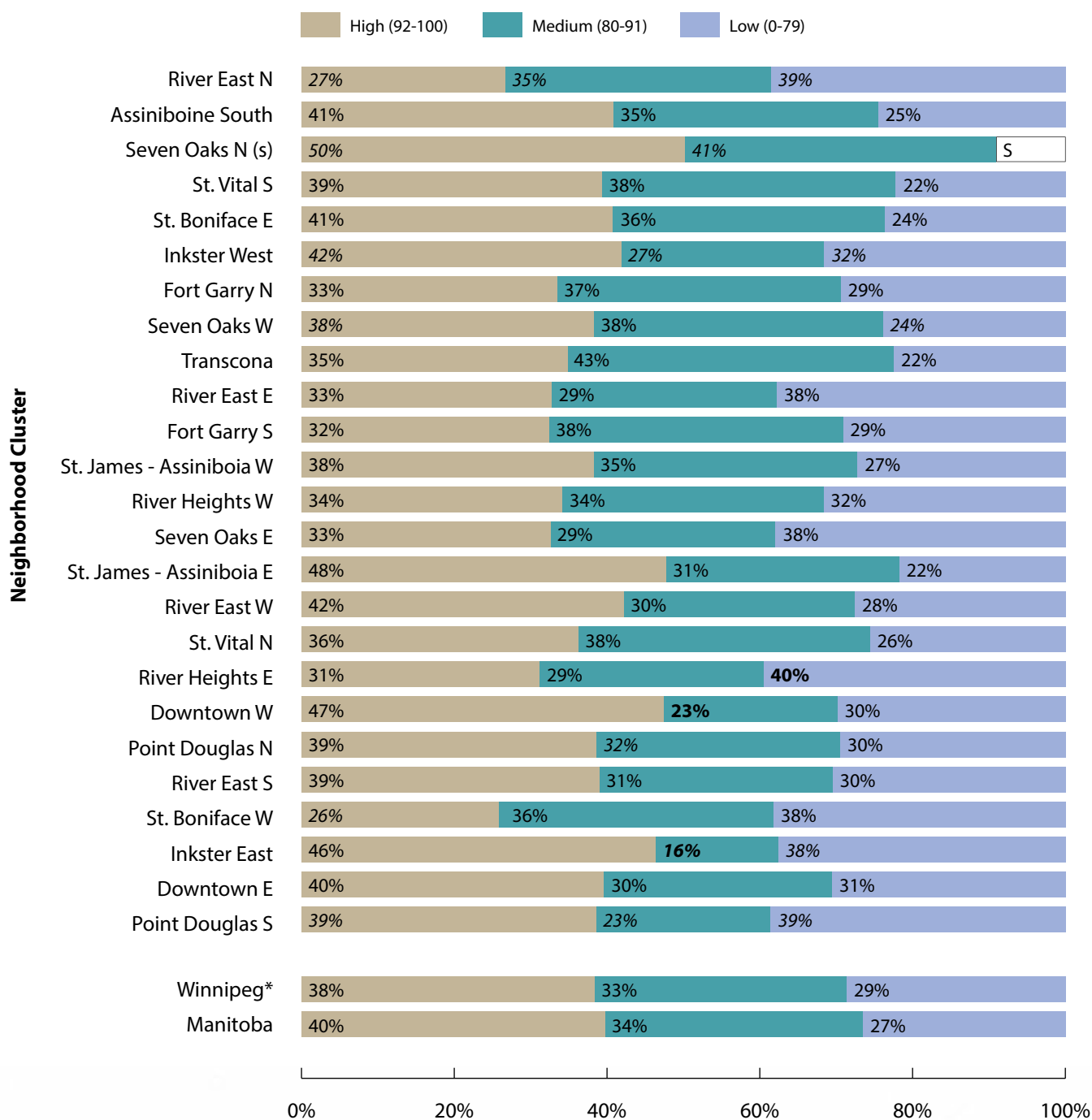
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A3.1.2.a3

SF-36 General Mental Health Status by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008, & 2009–2010



Source: Canadian Community Health Survey, 2005–2010

*Excluding Churchill

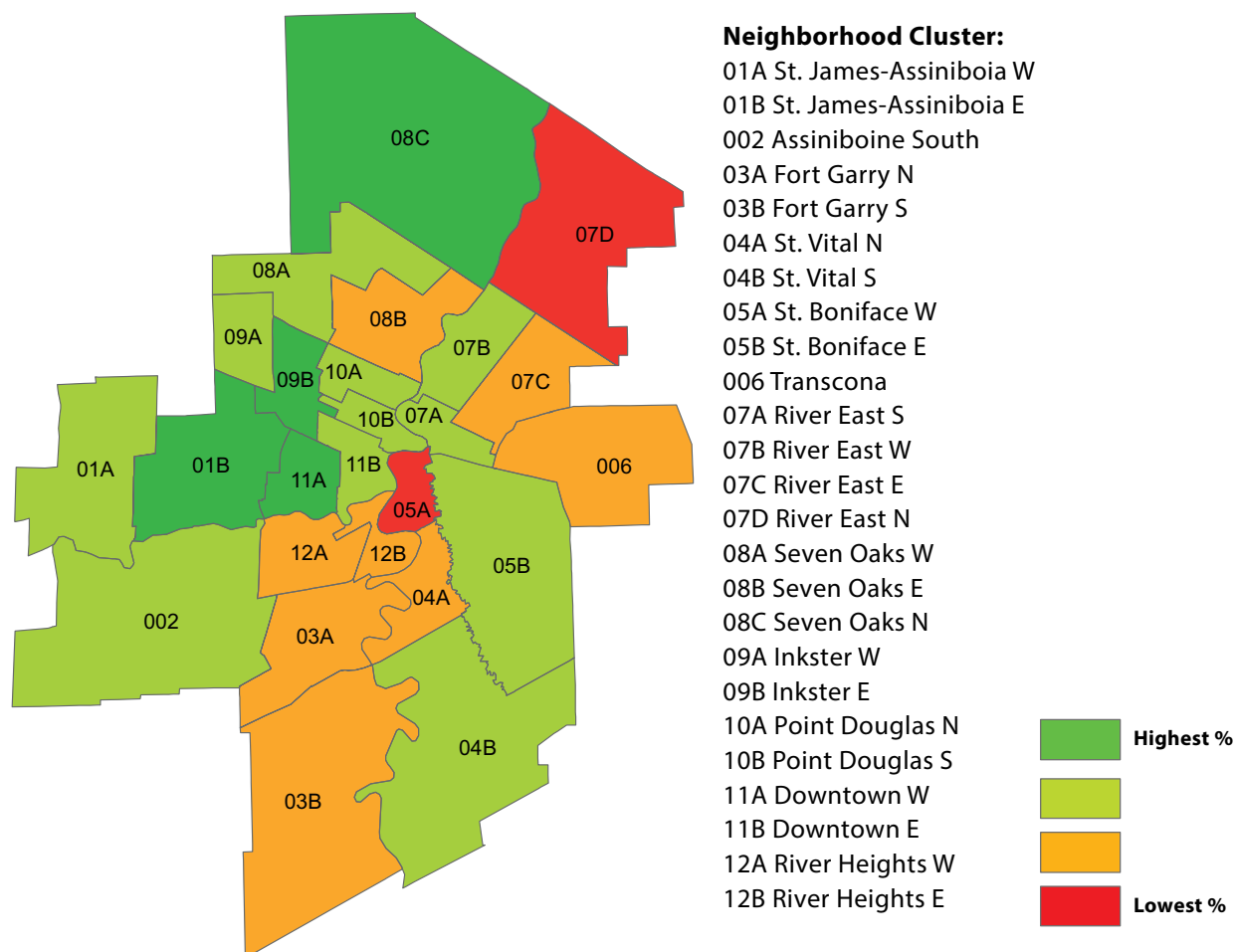
bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

SF-36 General Mental Health Status (High Level) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008, & 2009–2010



Source: Canadian Community Health Survey, 2005–2010



Indicator: SF-36 Physical Functioning (Physical Health)

DEFINITION: The percentage of persons at perfect physical functioning (score=100) vs. others (score < 100) in a weighted population sample of residents aged 12 years and older. The physical functioning scale is a derived measure from the SF-36 questionnaire, a tool for measuring a person's perceived mental and physical health status. Basic physical functioning is rated on a scale of 0 to 100 (0 indicating unable to bathe or dress or walk one block; 100 indicating capable of vigorous activity).

NUMERATOR: Winnipeg Regional Health Authority (the Region) residents aged 12 years and older who reported perfect physical functioning (score=100).

DENOMINATOR: Total number of the Region's residents aged 12 years and older responding to the survey.

CALCULATION: Age- and sex-adjusted percent of weighted sample of the Region's residents aged 12 and older.

DATA SOURCE: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2005, 2007-2008 and 2009-2010)

KEY FINDINGS:

- Fifty percent (50%) of the Region's residents aged 12 years and older reported perfect physical functioning.
- There was little variation in this indicator across the Region (community area or neighborhood cluster).

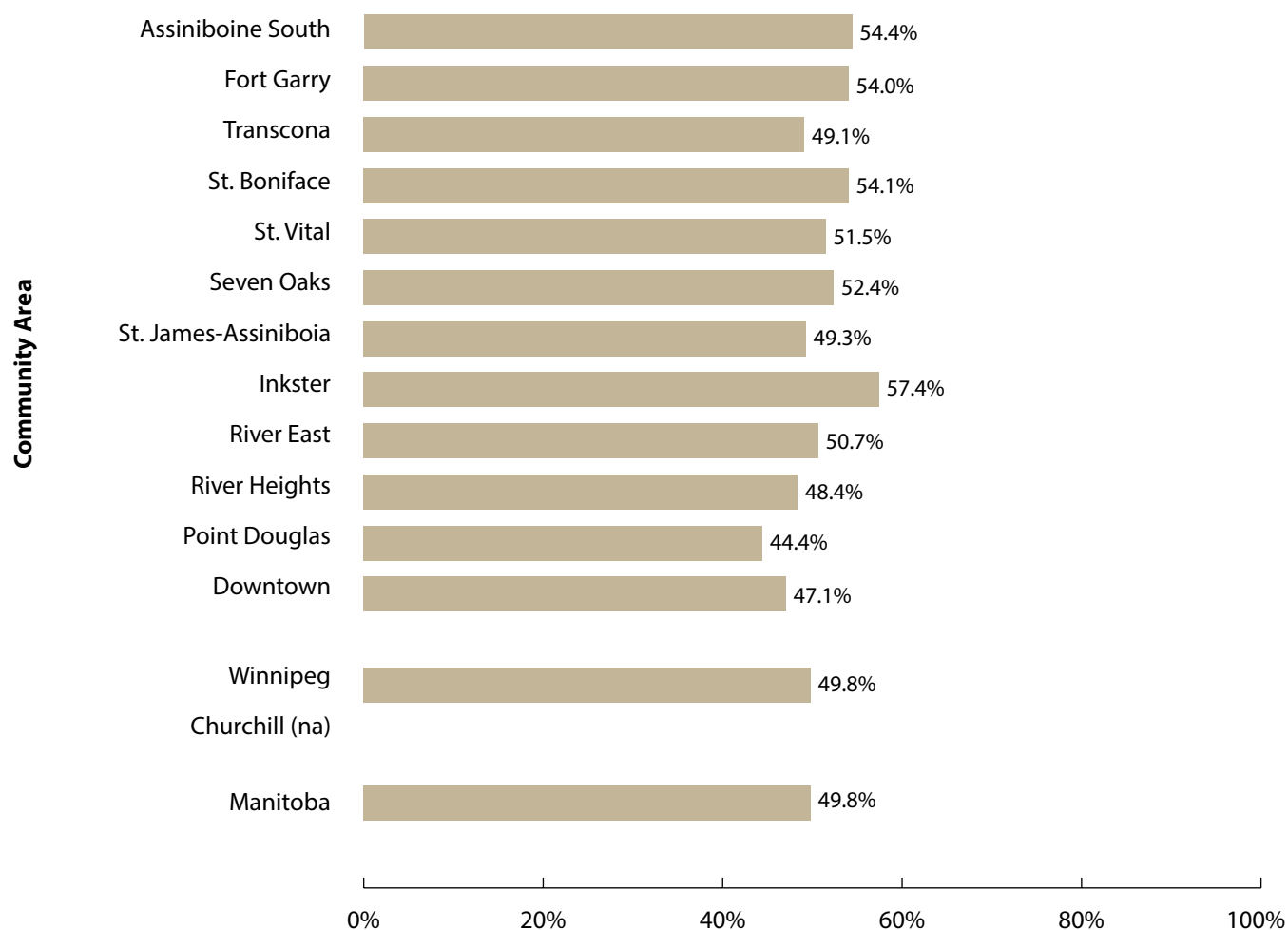
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The physical functioning scale of the SF-36 questionnaire is a summary measure of a person's ability to perform a variety of daily physical tasks from dressing and bathing, to walking one block, to vigorous exercise. The indicator reports the percentage of the Region's residents (aged 12 years and older) who can function perfectly (overall the Region 50%).

Figure A3.1.2.b1

SF-36 Perfect Physical Functioning by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008 & 2009–2010



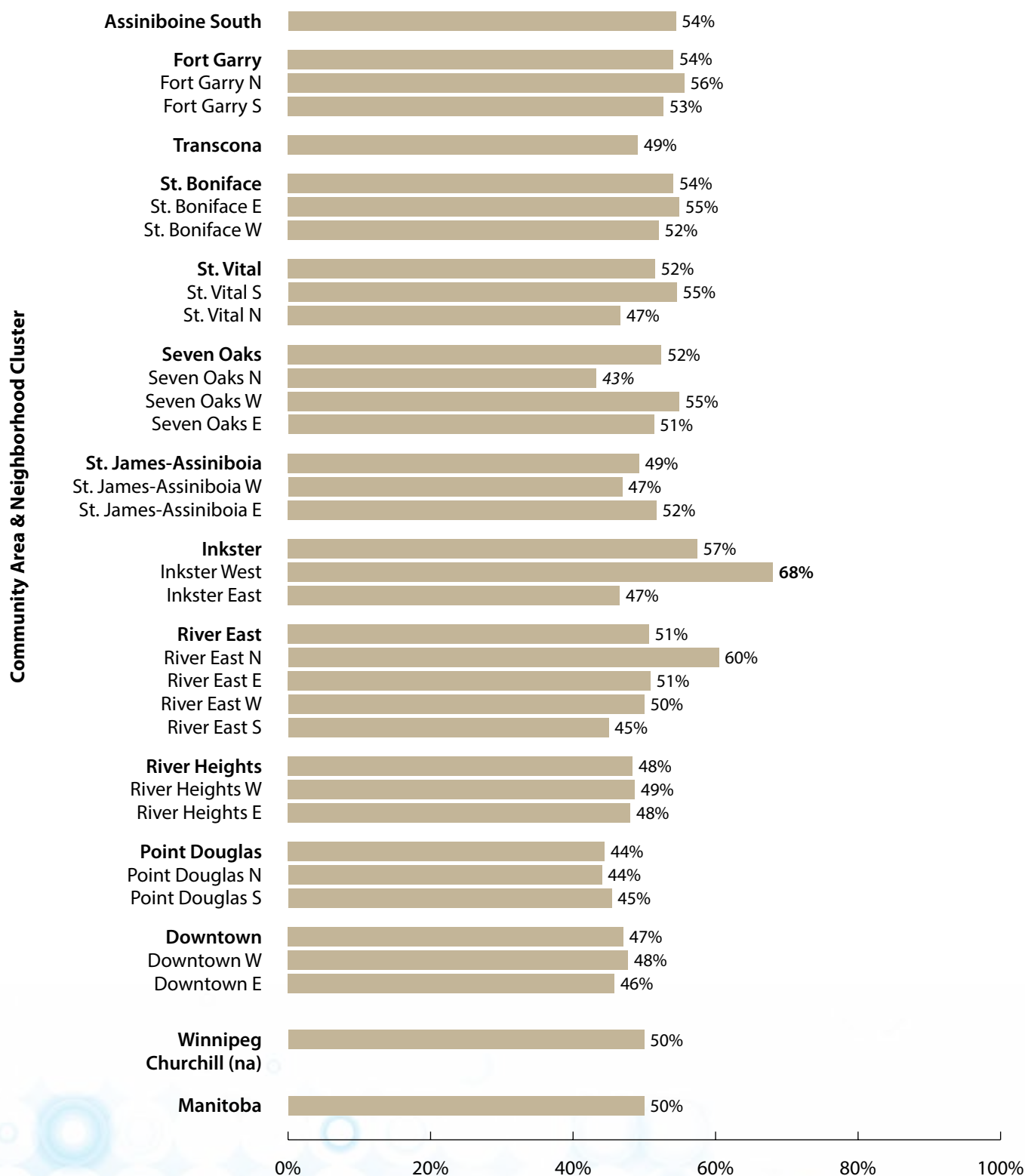
Source: Canadian Community Health Survey, 2005–2010

(na) - data unavailable

Figure A3.1.2.b2

SF-36 Perfect Physical Functioning by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008 & 2009–2010



Source: Canadian Community Health Survey, 2005–2010

bold - indicates area's rate was statistically different from Manitoba Average

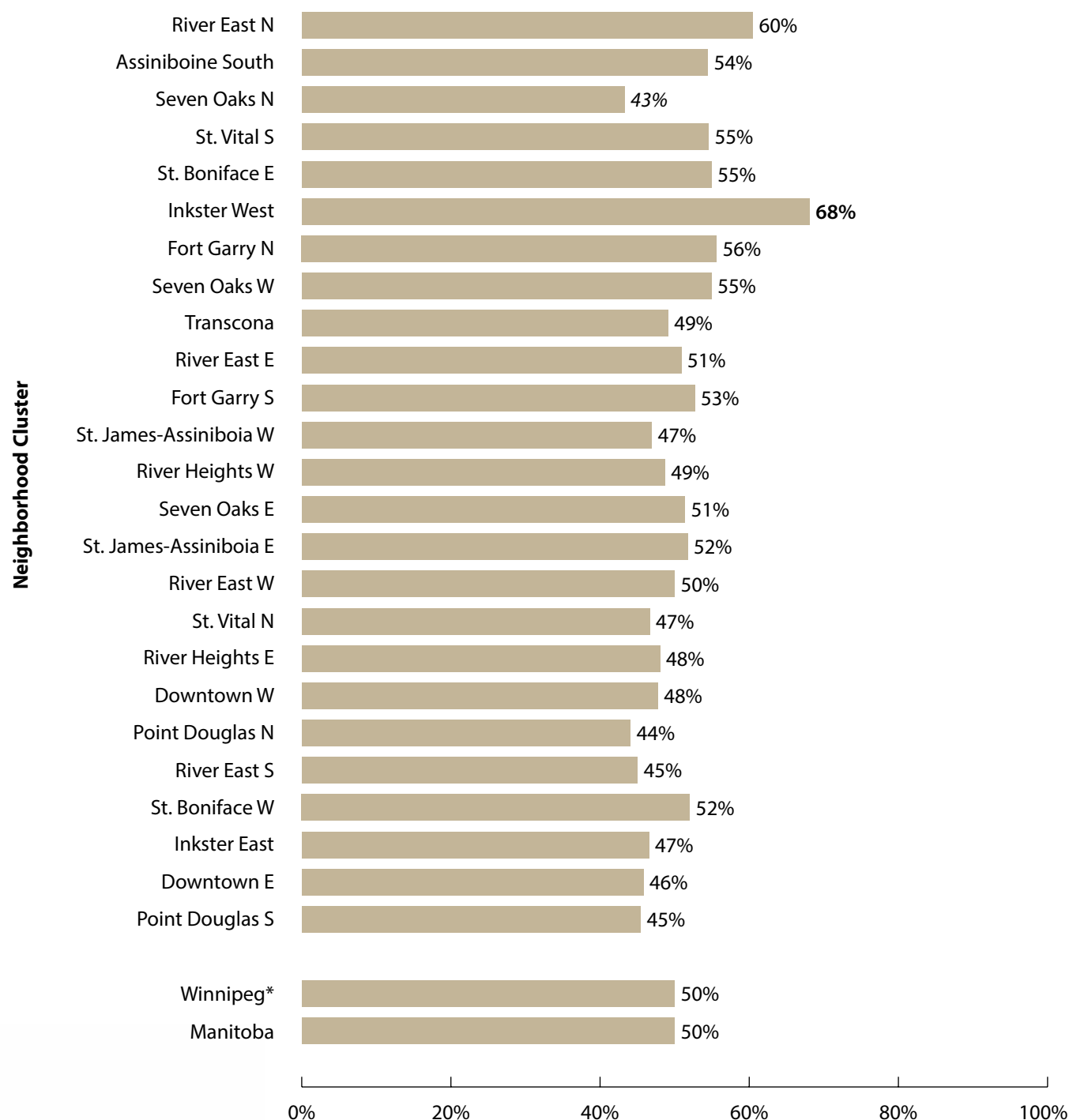
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A3.1.2.b3

SF-36 Perfect Physical Functioning by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008 & 2009–2010



Source: Canadian Community Health Survey, 2005–2010

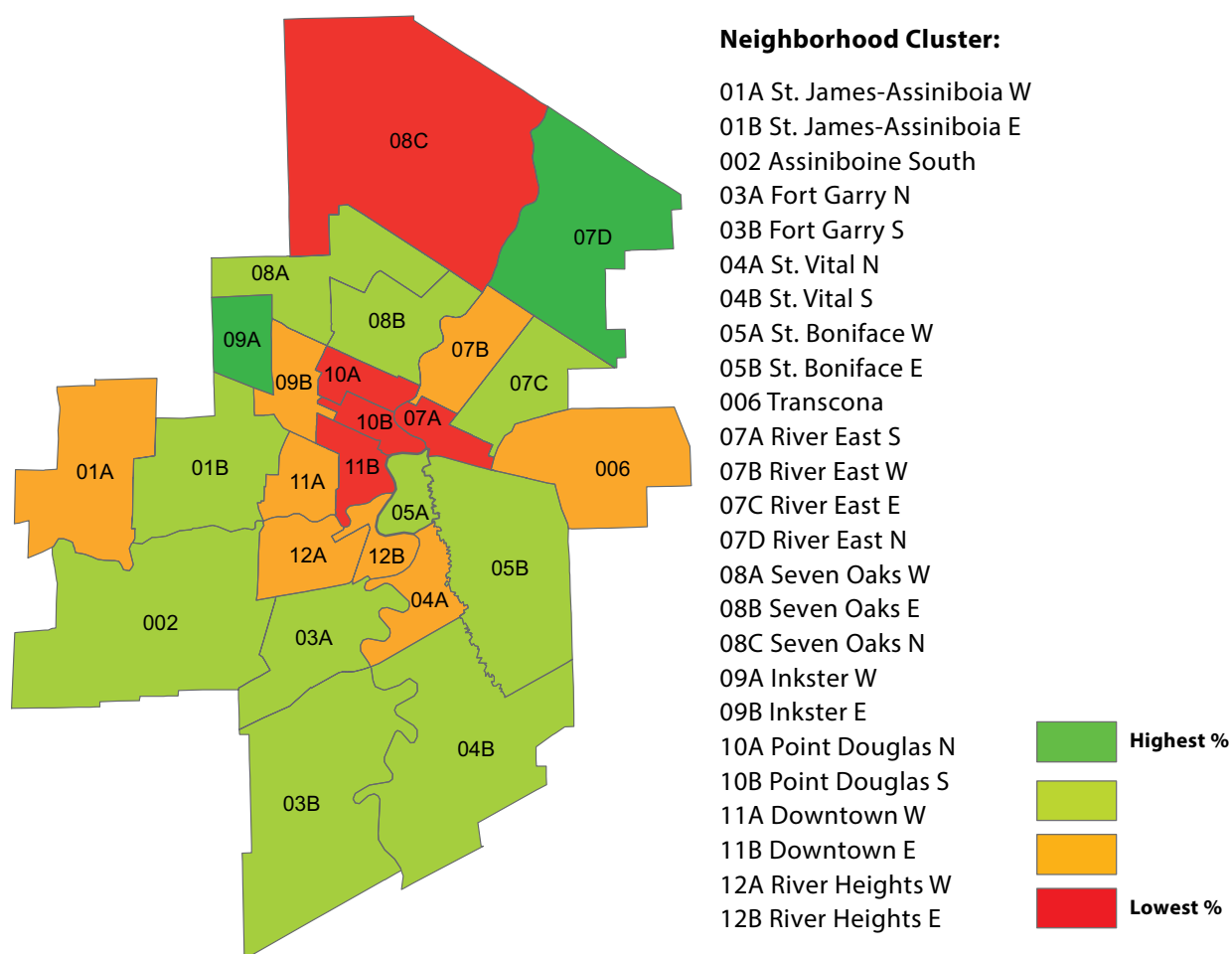
*Excluding Churchill

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

SF-36 Perfect Physical Functioning by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2005, 2007–2008, & 2009–2010



Source: Canadian Community Health Survey, 2005–2010



Indicator: Male Life Expectancy (LE) at Birth

DEFINITION: The average number of years that a newborn baby is expected to live if the current age-specific mortality trends continue to apply.

CALCULATION: Life expectancy was calculated directly from the mortality experience of Winnipeg Regional Health Authority (the Region) residents using the “life table” approach.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2003, 2009, & 2013

KEY FINDINGS:

- Male life expectancy (LE) at birth in the Region increased by almost 3 years over a 20-year period, from 75.6 years during 1991-1995 to 78.3 years during 2007-2011.
- Male LE at birth varied across the Region, with central areas (e.g., Downtown and Point Douglas) having lower male LEs at birth than other areas in Winnipeg and the overall Winnipeg average. Point Douglas had the lowest male LE at birth (71.7 years, 2007-2011).
- Household income was inversely associated with the length of male LE at birth: (a) Male LE at birth for the highest income neighborhood cluster (NC) was about 20% higher (19% higher in 2002-2006 and 23% higher in 2007-2011) than that for the lowest income NC; the absolute difference has increased from 13.4 years in 2002-2006 to 15.6 years in 2007-2011, (b) there was 10-year gap between the highest and the lowest urban income communities.

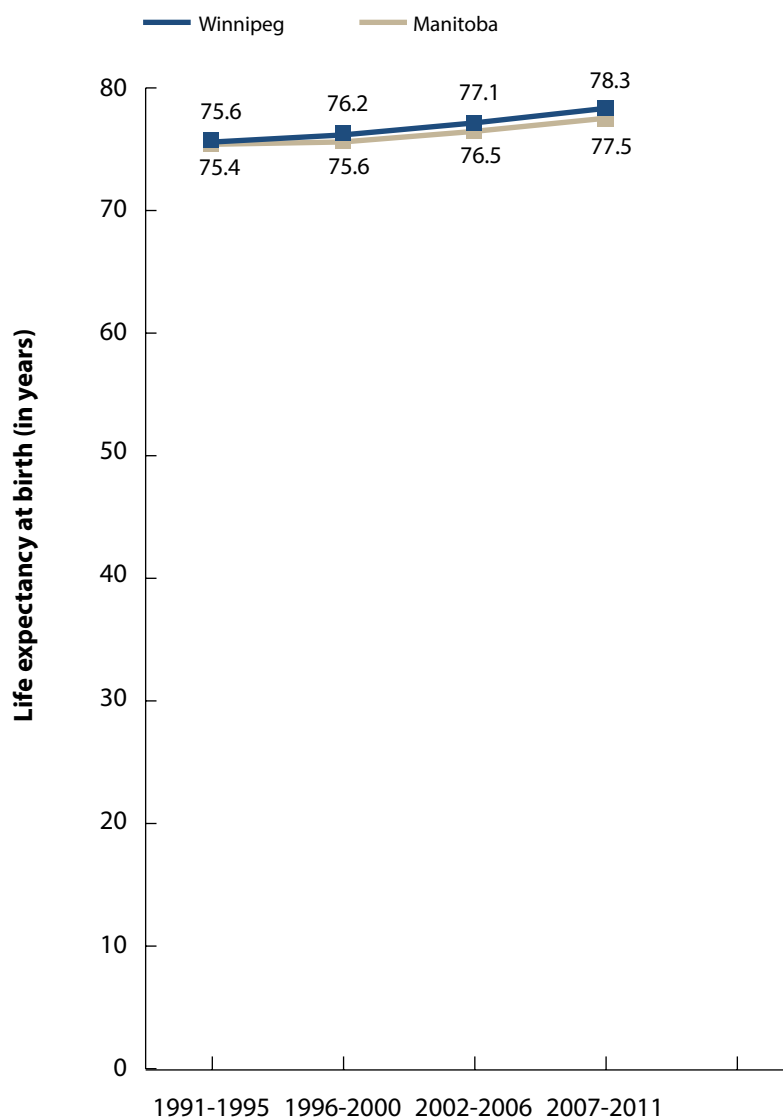
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- LE at birth is a measure of overall health in the community.
- Male LE at birth is about 5 years lower than female LE at birth; the difference between sexes has narrowed over the past 20 years.
- LE at birth is partly dependent on mortality in the first year of life. We observed that it is lower in lower income areas than in higher income areas likely because of the higher infant and child mortality rates in the former.
- The significant increase of male LE at birth in Churchill from 2002-2006 to 2007-2011 should not be over-interpreted as there is a small number of residents in the area (n=1,021, 2011) which results in significant year-to-year variation.

Figure A3.2.1.a1

Trends in Male Life Expectancy (in years) in Winnipeg & Manitoba

Life expectancy at birth (in years), 1991–2011

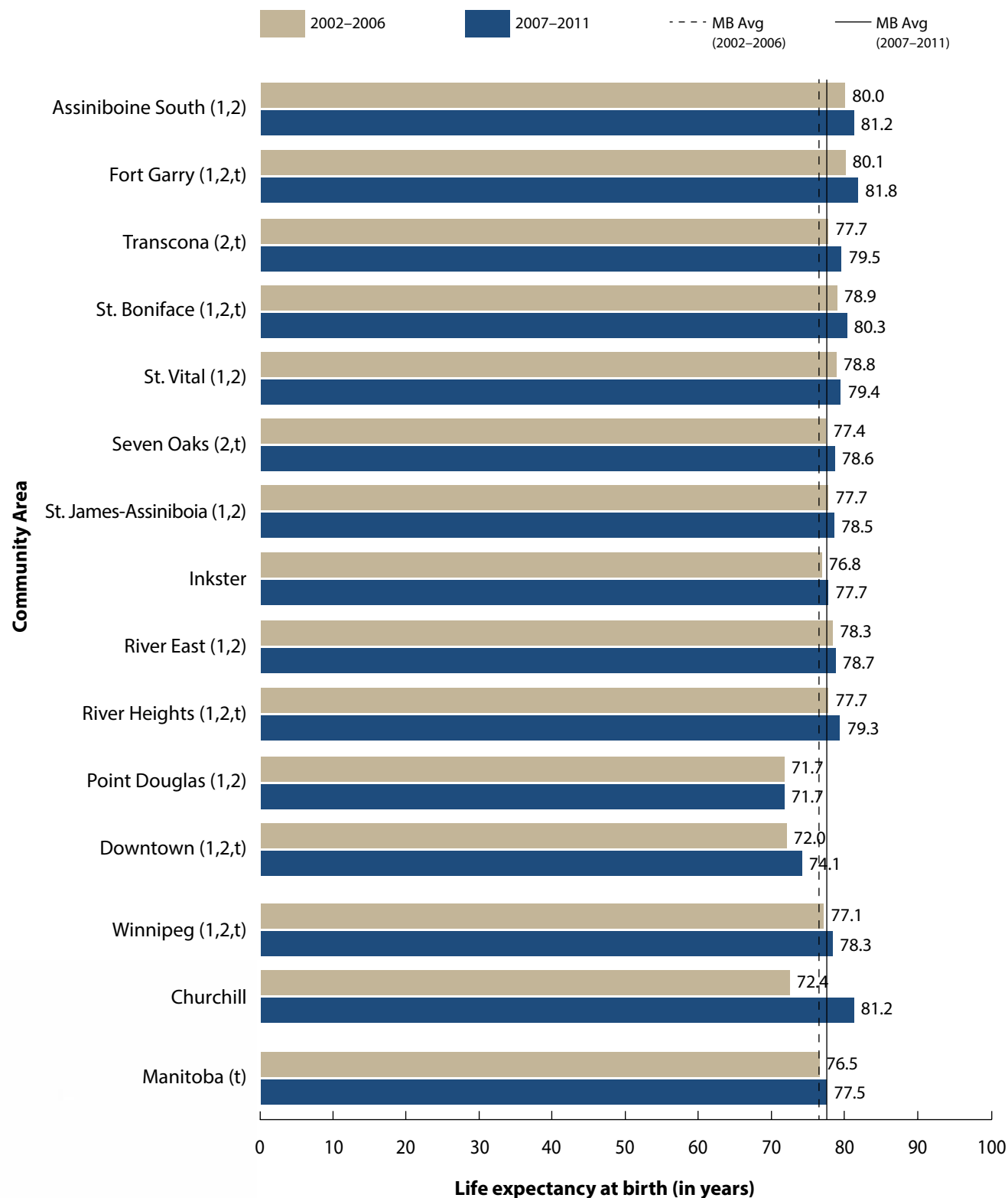


Sources: Manitoba Centre for Health Policy, 2003, 2009 & 2013

Figure A3.2.1.a2

Male Life Expectancy (in years) by Winnipeg Community Area

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

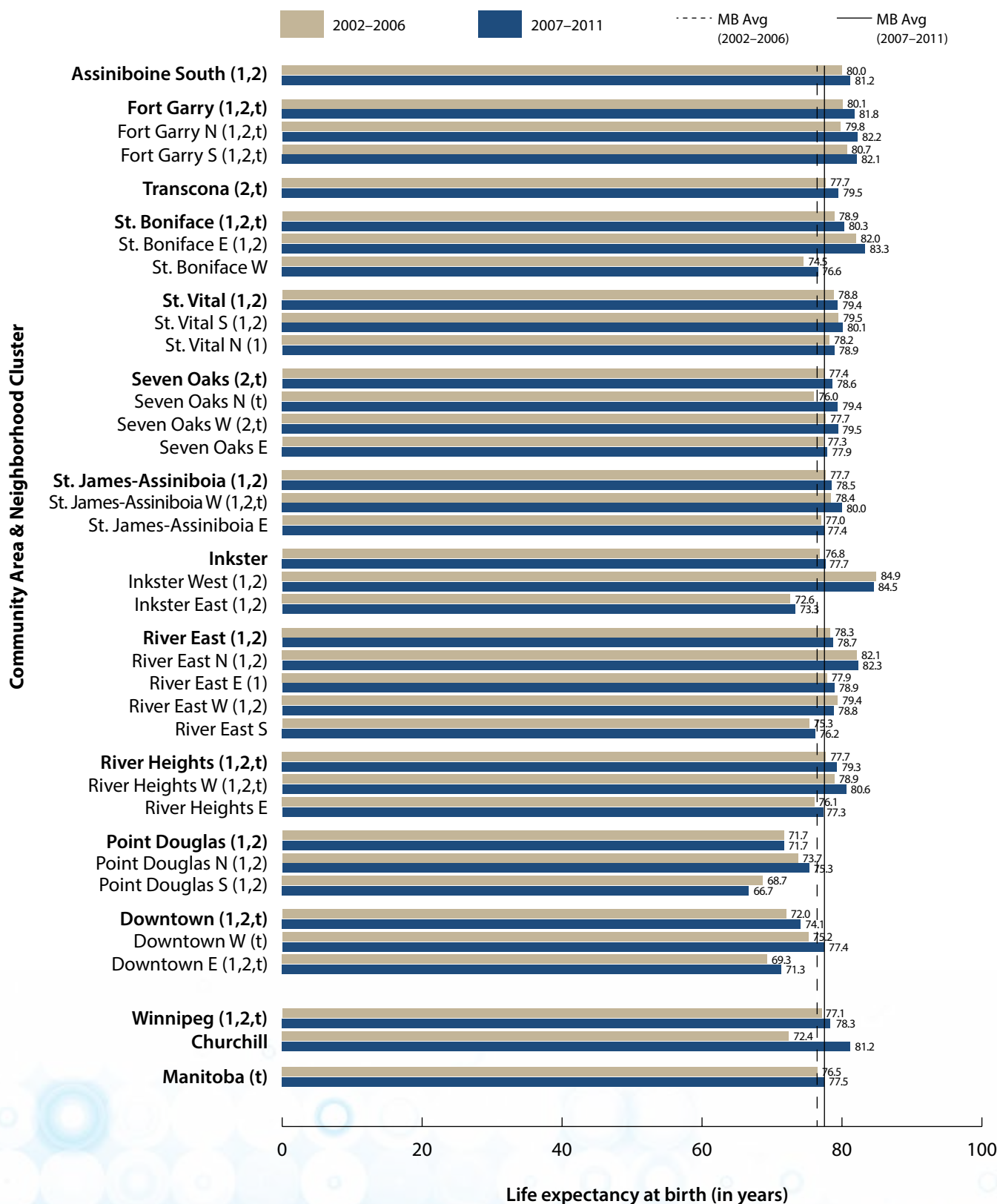
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.1.a3

Male Life Expectancy (in years) by Winnipeg Community Area & Neighborhood Cluster

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

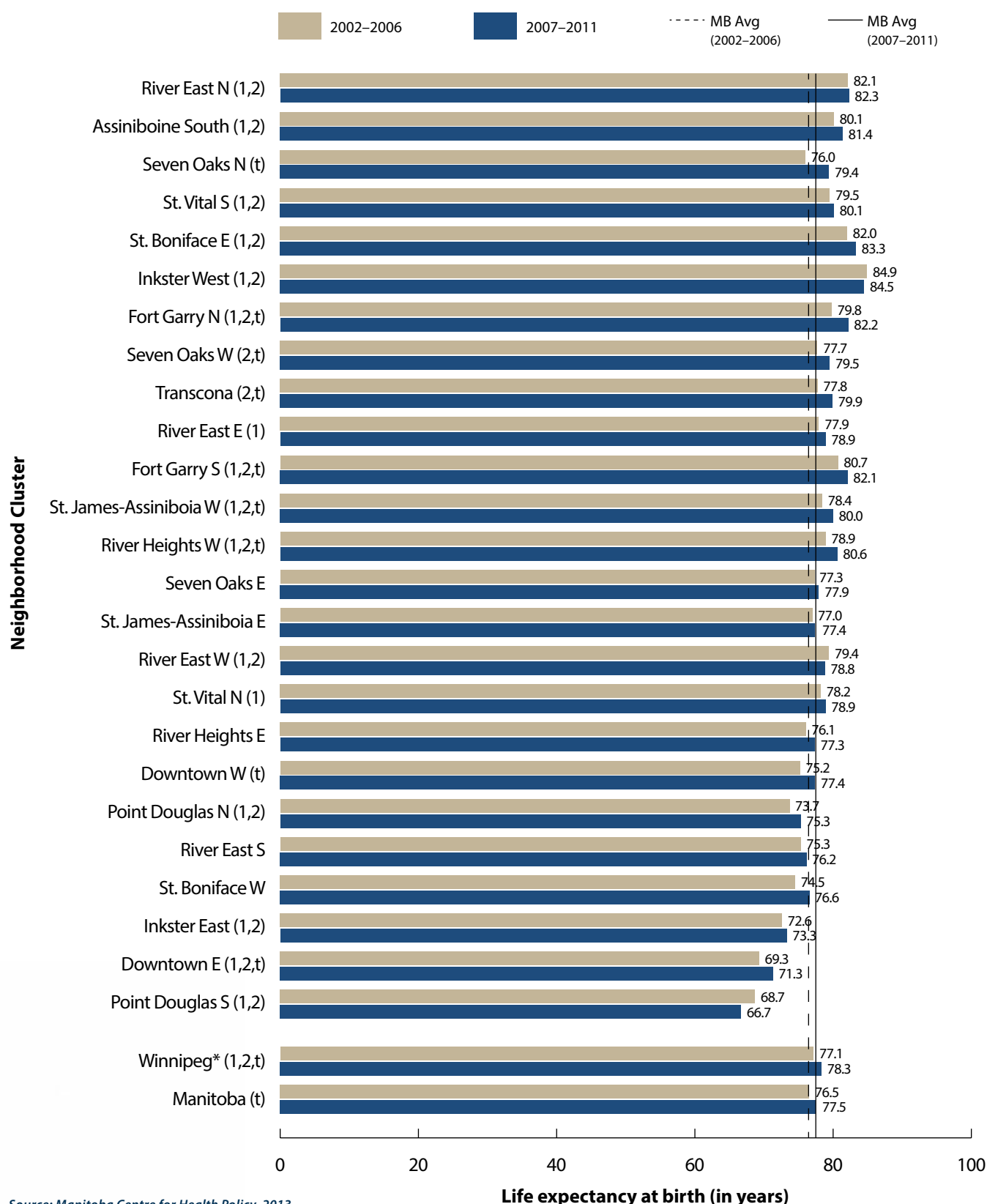
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.1.a4

Male Life Expectancy (in years) by Winnipeg Neighborhood Cluster

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

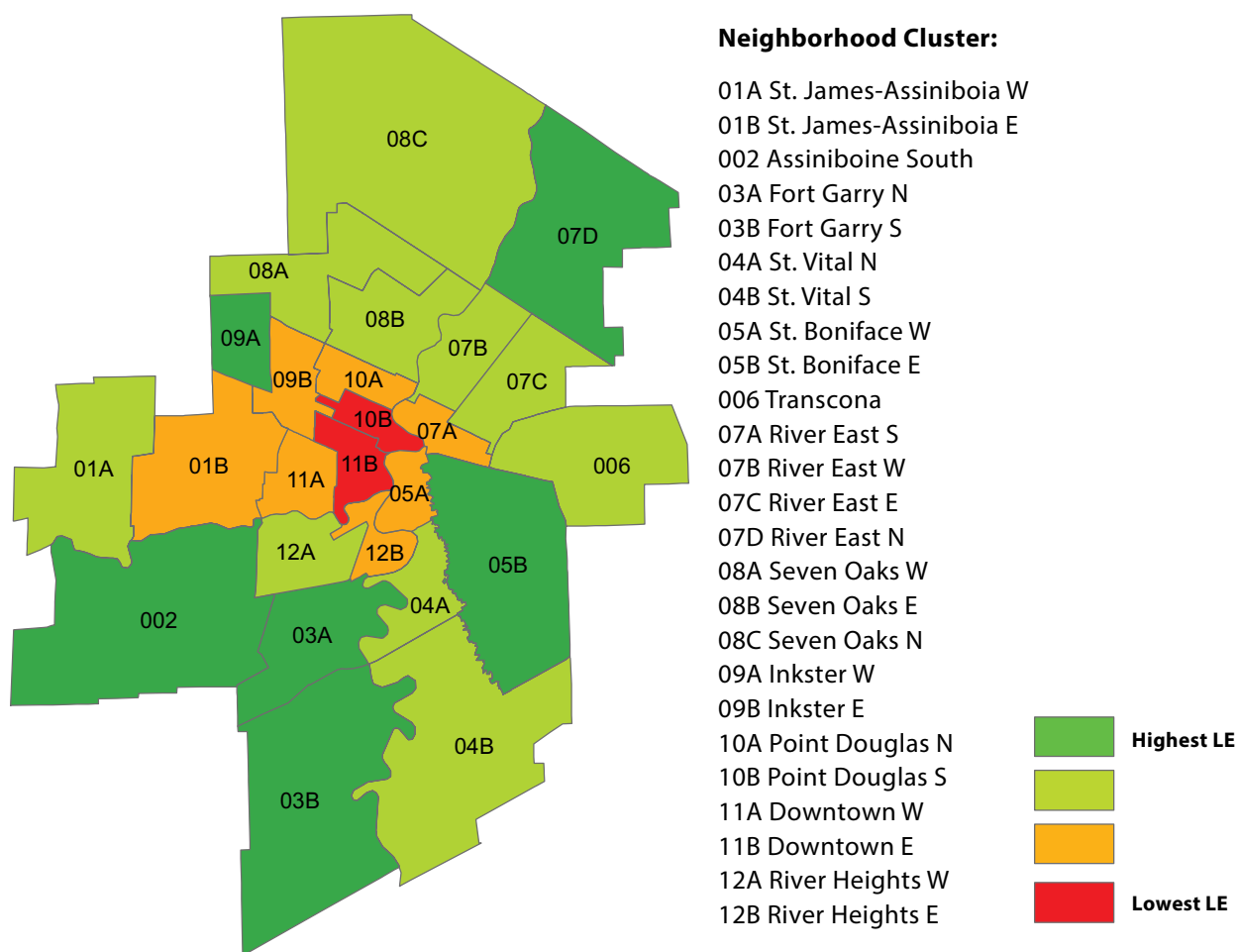
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Male Life Expectancy (LE) (in years) by Winnipeg Neighborhood Cluster

Life expectancy at birth (in years), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.2.1.a1

Health Inequality in Male Life Expectancy (LE) at Birth (in years), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002–2006 Years of Life	2007–2011 Years of Life
Male Life Expectancy (LE) at Birth by <i>Neighborhood Cluster (NC)</i> <i>median household income</i>		
Highest income NC male LE (River East N)	82.1 years	82.3 years
Lowest income NC male LE (Point Douglas S)	68.7 years	66.7 years
Absolute difference (Highest income NC - Lowest income NC)	13.4 years	15.6 years
Ratio (Highest income NC / Lowest income NC)	1.19	1.23
Male Life Expectancy (LE) at Birth by <i>Urban Income Quintile</i>	2002–2006 Years of Life	2007–2011 Years of Life
Highest Urban Income Quintile (U5)	81.9 years	83.1 years
U4	81.0 years	81.9 years
U3	79.1 years	80.0 years
U2	77.0 years	78.7 years
Lowest Urban Income Quintile (U1)	71.9 years	72.9 years
Absolute difference (U5-U1)	10.0 years	10.2 years
Ratio (U5/U1)	1.14	1.14

Source: Manitoba Centre for Health Policy, 2013



Indicator: Female Life Expectancy (LE) at Birth

DEFINITION: The average number of years that a newborn baby is expected to live if the current age-specific mortality trends continue to apply.

CALCULATION: Life expectancy was calculated directly from the mortality experience of Winnipeg Regional Health Authority (the Region) residents using the “life table” approach.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2003, 2009, & 2013

KEY FINDINGS:

- Female life expectancy (LE) at birth in the Region has increased from 81.4 years during 1991-1995 to 82.7 years during 2007-2011.
- Female LE at birth varied across the Region, with central areas (e.g., Downtown and Point Douglas) having lower female LEs at birth than other areas in Winnipeg and the overall Winnipeg average. Point Douglas South had the lowest female LE at birth (70.9 years, 2007-2011).
- Household income was inversely associated with female LE at birth: (a) During 2007-2011, female LE at birth for the highest income neighborhood cluster (NC) was 23% higher than that for the lowest income NC; there was a 16.6-year difference between the two NCs and the gap has remained relatively stable, (b) The gap between the highest and the low income communities increased from 6.8 years in 2002-06 to 8.1 years in 2007-11.

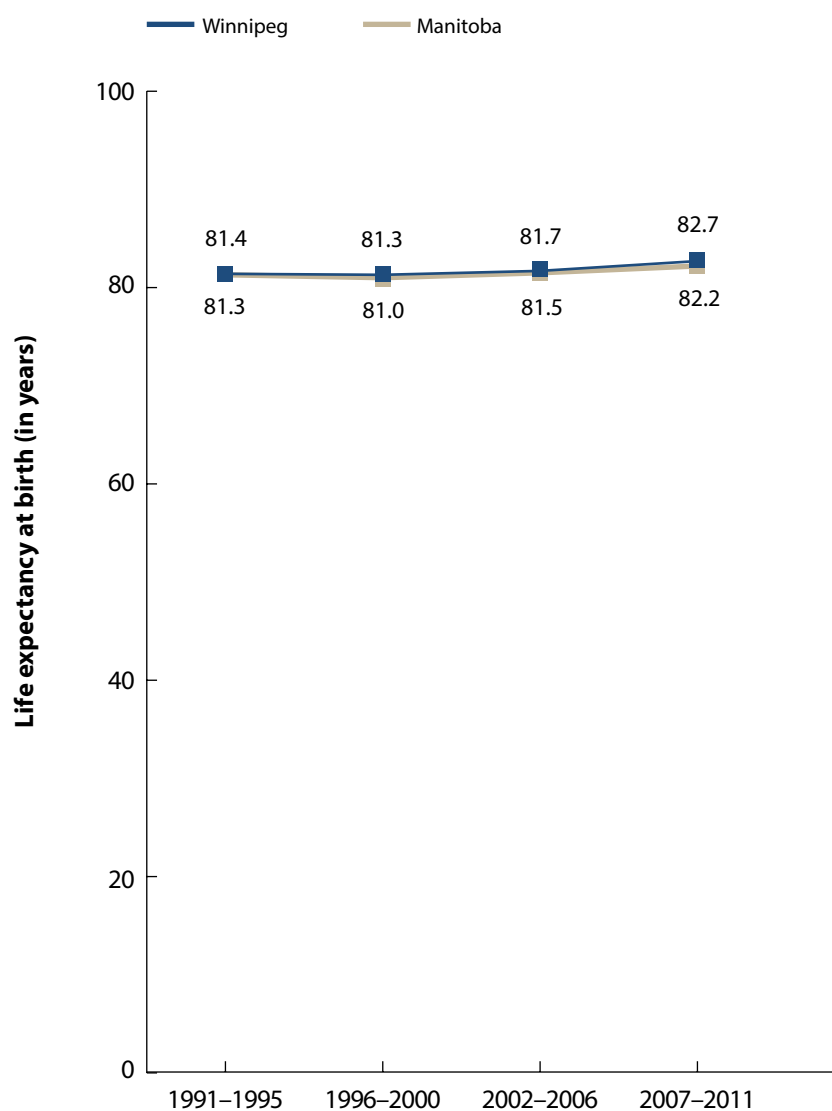
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Female LE at birth is about 5 years higher than male LE at birth; the difference in LE at birth between the sexes has narrowed over the past 20 years.
- LE at birth is a measure of overall health in the community and is partly dependent on mortality in the first year of life. We observed that LE at birth is lower in lower income areas than in higher income areas likely because of the higher infant and child mortality rates in the former.

Figure A3.2.1.b1

Trends in Female Life Expectancy (in years) in Winnipeg & Manitoba

Life expectancy at birth (in years), 1991–2011

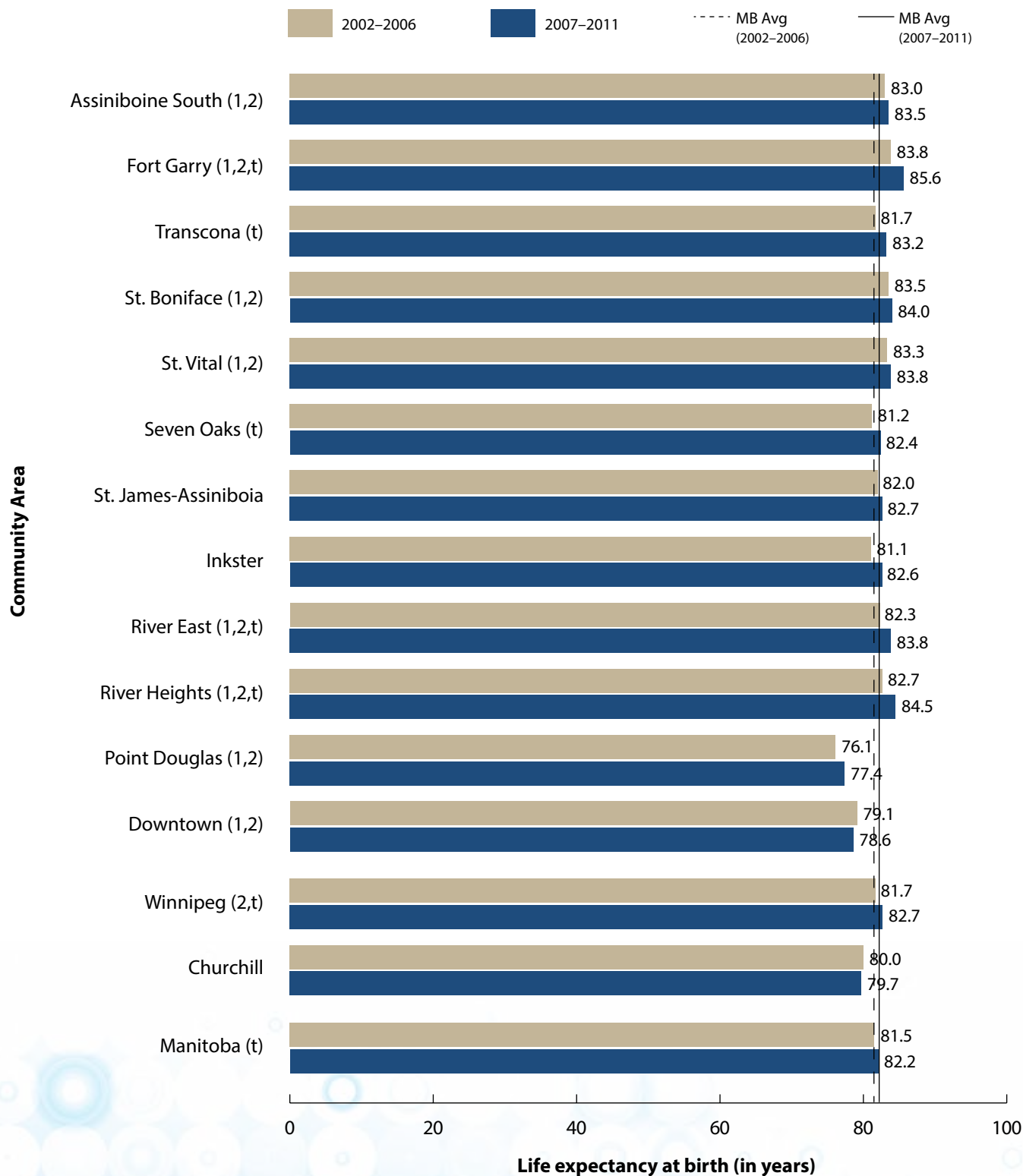


Sources: Manitoba Centre for Health Policy, 2003, 2009 & 2013

Figure A3.2.1.b2

Female Life Expectancy (in years) by Winnipeg Community Area

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

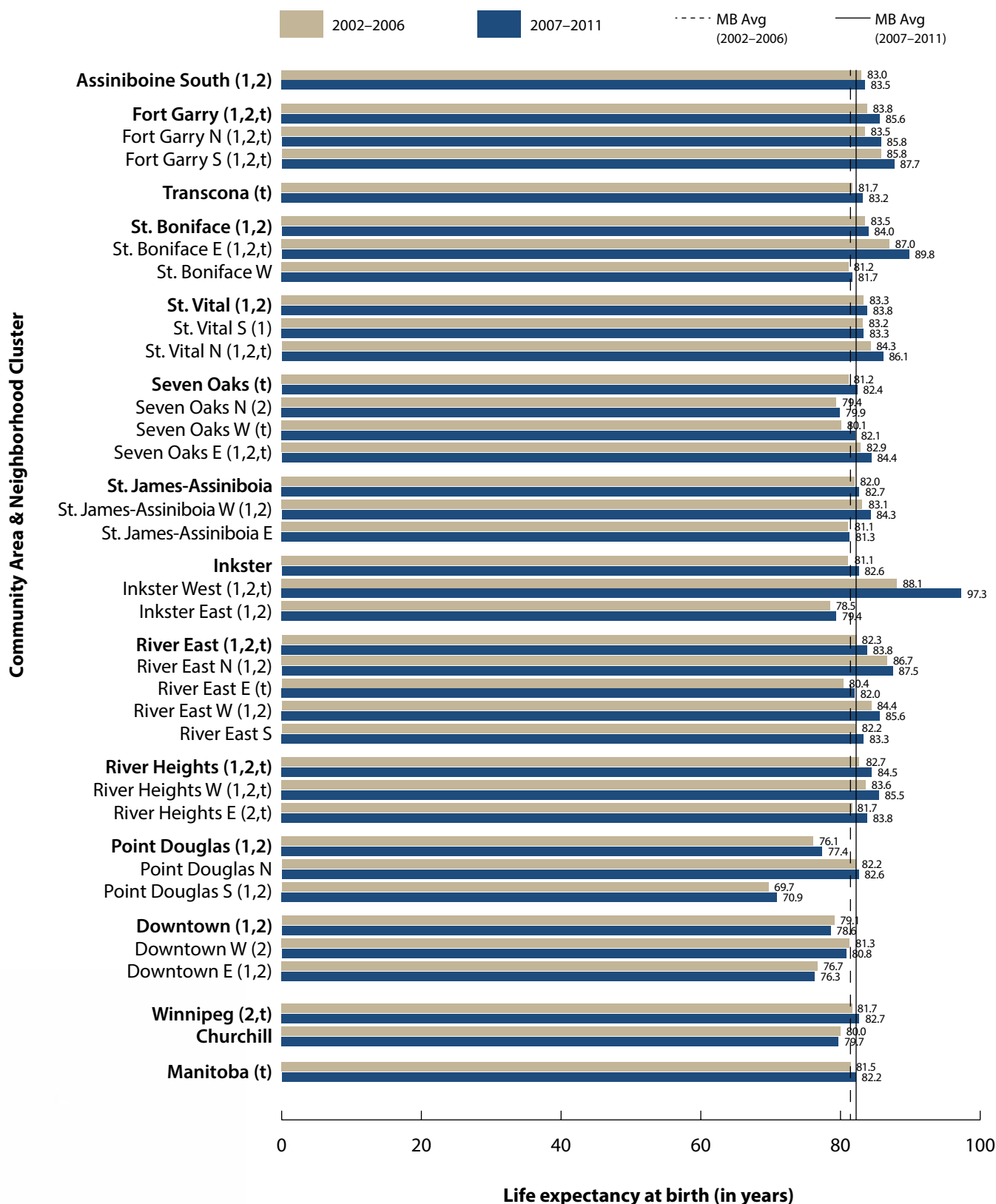
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.1.b3

Female Life Expectancy (in years) by Winnipeg Community Area & Neighborhood Cluster

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

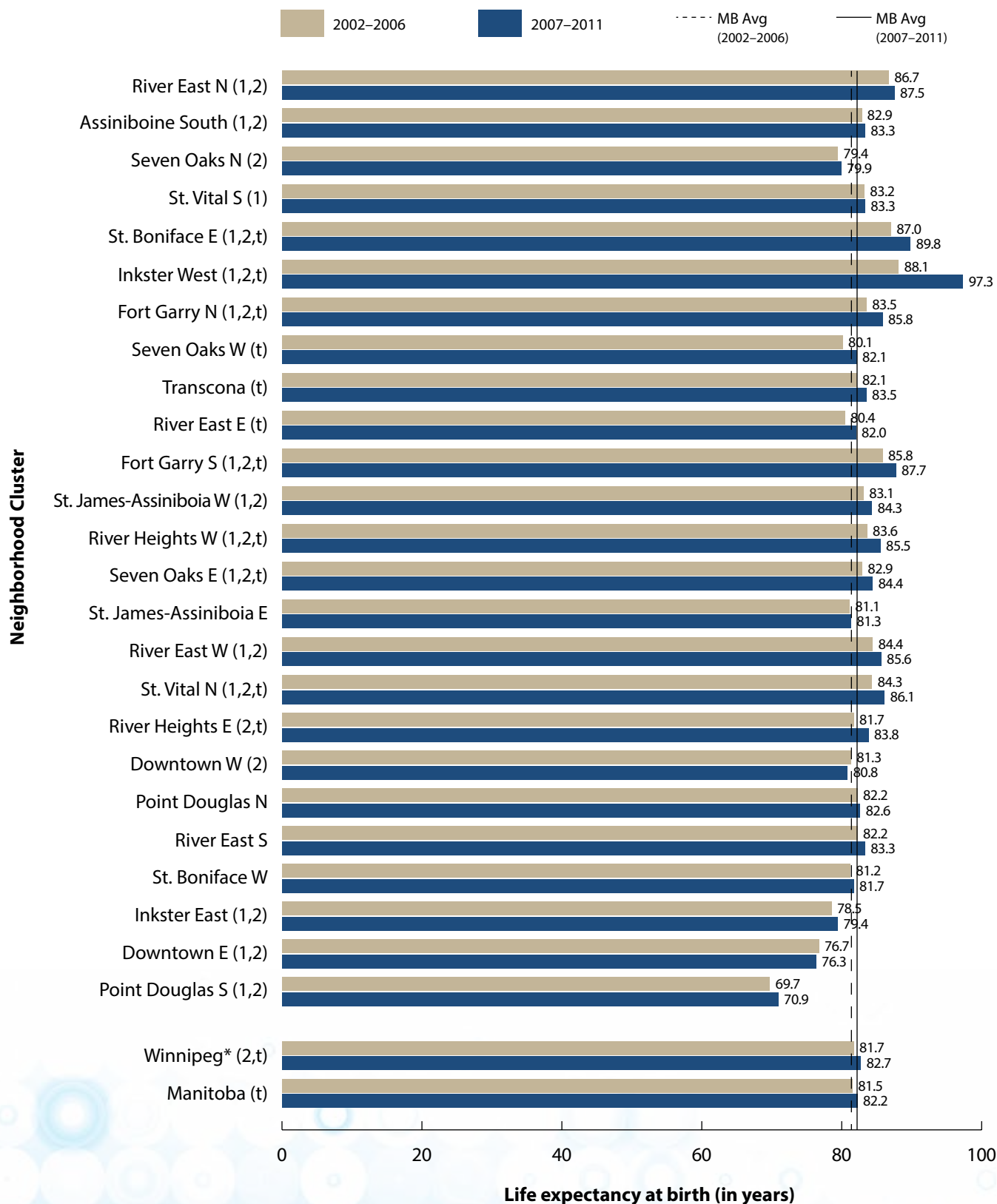
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.1.b4

Female Life Expectancy (in years) by Winnipeg Neighborhood Cluster

Life expectancy at birth (in years), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

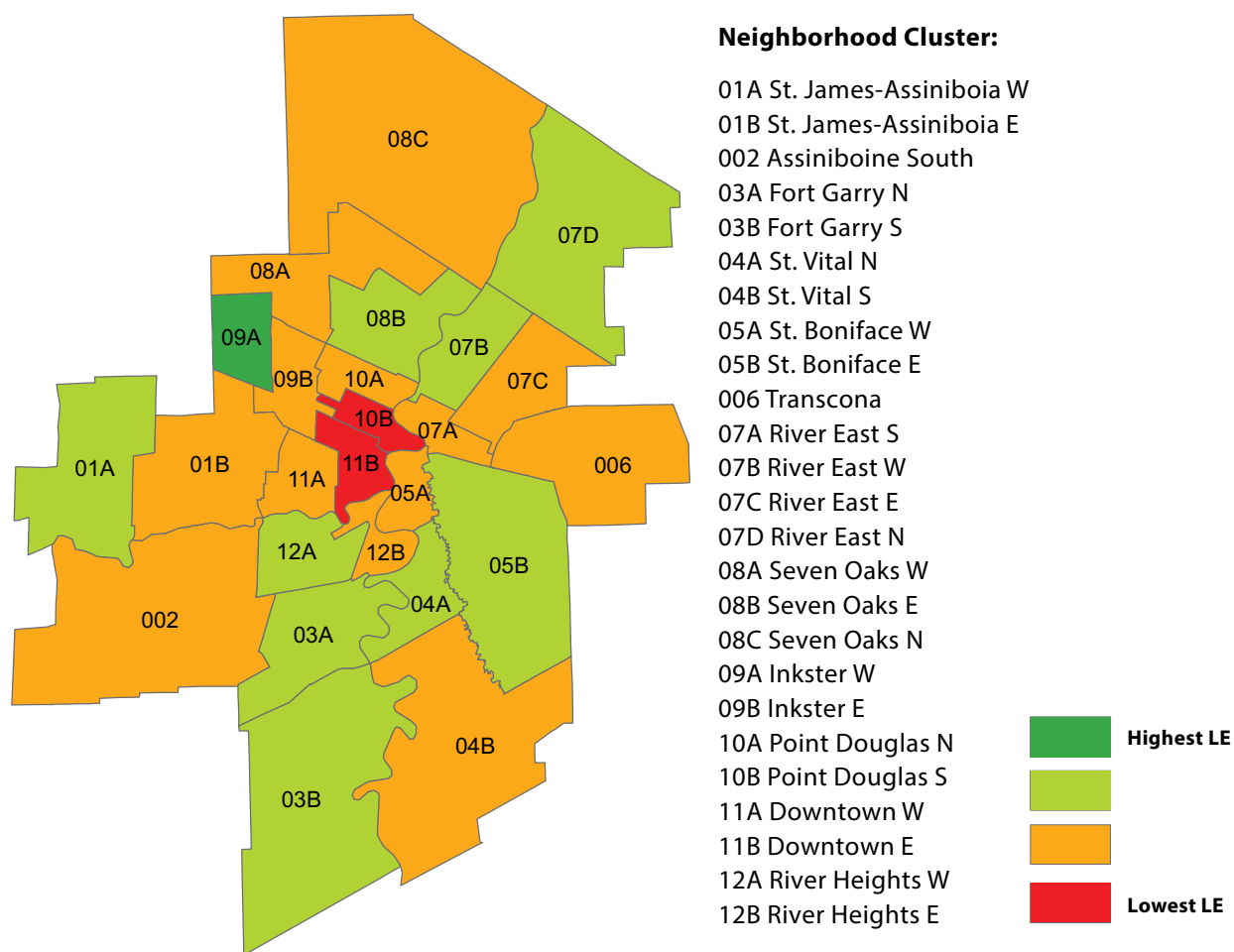
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Female Life Expectancy (LE) (in years) by Winnipeg Neighborhood Cluster

Life expectancy at birth (in years), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.2.1.b1

Health Inequality in Female Life Expectancy (LE) at Birth (in years), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002–2006 Years of Life	2007–2011 Years of Life
Female Life Expectancy (LE) in years by <i>Neighborhood Cluster (NC)</i> <i>median household income</i>		
Highest income NC female LE (River East N)	86.7 years	87.5 years
Lowest income NC female LE (Point Douglas S)	69.7 years	70.9 years
Absolute difference (Highest income NC – Lowest income NC)	17.0 years	16.6 years
Ratio (Highest income NC / Lowest income NC)	1.24	1.23
Female Life Expectancy (LE) in years by <i>Urban Income Quintile</i>	2002–2006 Years of Life	2007–2011 Years of Life
Highest Urban Income Quintile (U5)	85.9 years	87.8 years
U4	86.4 years	86.8 years
U3	85.6 years	86.8 years
U2	84.5 years	85.1 years
Lowest Urban Income Quintile (U1)	79.1 years	79.7 years
Absolute difference (U5-U1)	6.8 years	8.1 years
Ratio (U5/U1)	1.09	1.10

Source: Manitoba Centre for Health Policy, 2013



Indicator: Infant Mortality Rate

DEFINITION: The number of infant deaths, as reported in the Vital Statistics database in a given year, expressed as infant deaths per 1,000 live births.

NUMERATOR: Number of infant deaths in a given year.

DENOMINATOR: Number of live births in the given year.

CALCULATION: Crude annual rates are calculated.

DATA SOURCE: Manitoba Health, 2013

KEY FINDINGS:

- Infant mortality rate in Manitoba declined from 7.1 deaths per 1,000 live births in 2002/03 to 5.8 deaths per 1,000 live births in 2011/12.
- Infant mortality rate (5.9 per 1,000) in the Winnipeg Regional Health Authority (the Region) in 2007/08-2011/12 was slightly lower than the provincial average, but the difference was not statistically significant.

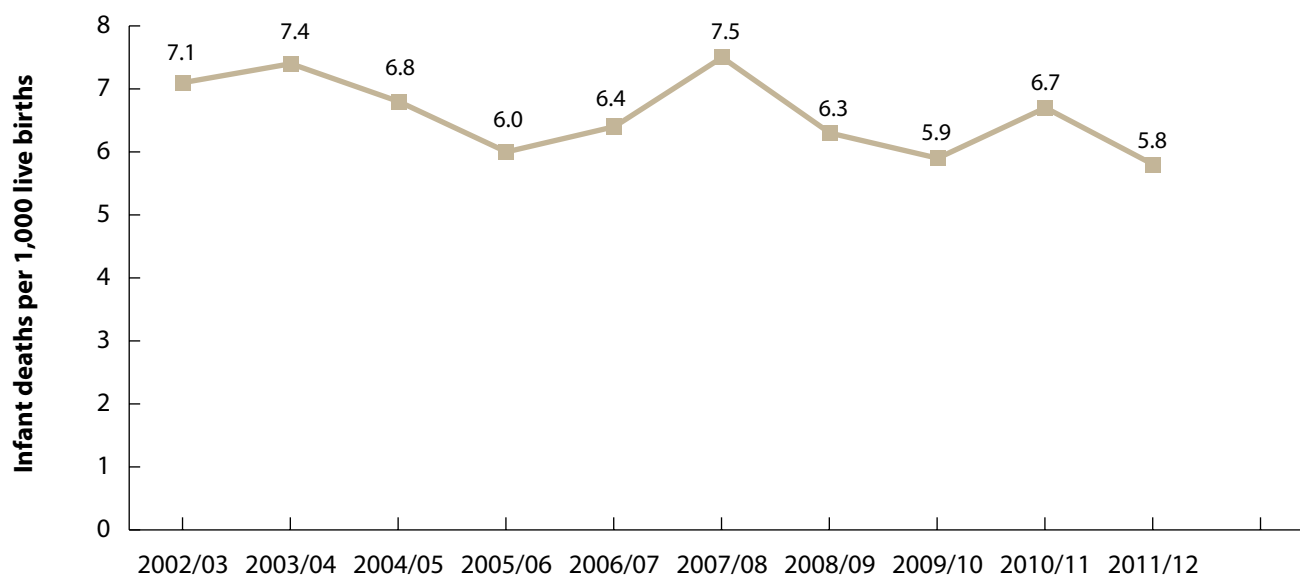
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Infant mortality reflects overall population health and appears to be primarily a result of family's socioeconomic situation. This indicator has been widely adopted as a measure of success of maternal, infant and child health policy among developed countries.

Figure A3.2.2.a1

Trends in Infant Mortality Rates in Manitoba

Crude rate per 1,000 live births, 2002/03–2011/12

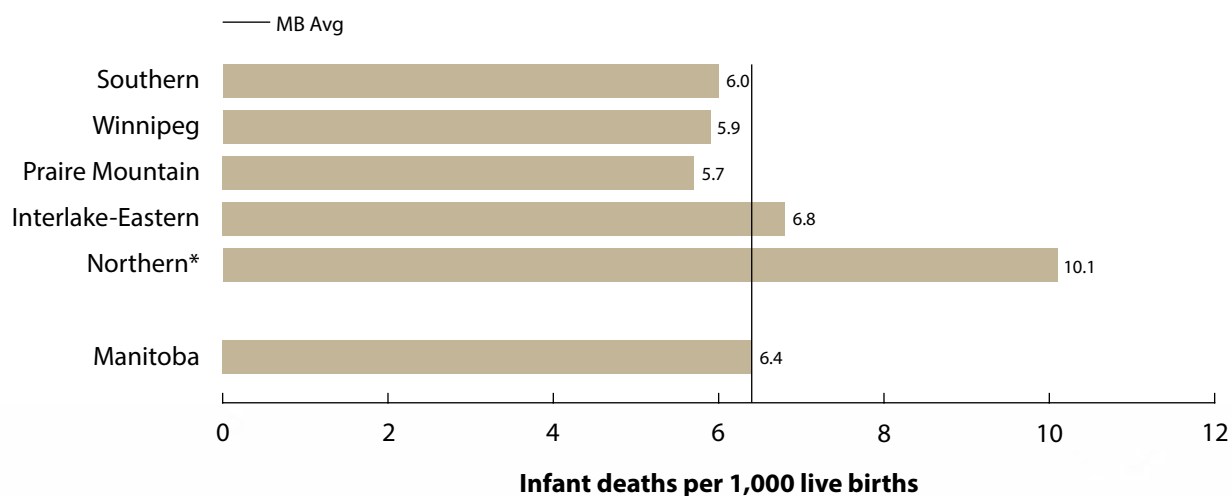


Source: Manitoba Health, 2013

Figure A3.2.2.a2

Infant Mortality Rates by Manitoba Health Region

Crude rate per 1,000 live births, 2007/08–2011/12



Source: Manitoba Health, 2013

*indicates the area's rate was statistically different from the MB average



Indicator: Child Mortality Rate

DEFINITION: The number of deaths in children aged 1 to 19 years, as reported in Manitoba's Vital Statistics database in a given year, expressed as deaths per 100,000 children in this age group.

NUMERATOR: Total number of deaths in Winnipeg Regional Health Authority (the Region) children aged 1 to 19 years in a given year.

DENOMINATOR: Total population of the same age in a given year.

CALCULATION: (Total number of deaths aged 1 to 19 years/ Total population of the same age)×100,000. Age- and sex-adjusted rates were calculated over five-year time periods. Mortality rate was age- and sex-adjusted to the Manitoba children aged 1-19 years for the first time period (i.e., 2000-2004 Manitoba children population as the standard population for 2000-2004 and 2005-2009; 1996-2000 Manitoba children population as the standard population for 1996-2000 and 2001-2005). *Note:* 2001-2005 data is not reported in the trend chart as it overlaps with the 2000-2004 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2008 & 2012

KEY FINDINGS:

- Child mortality rate in the Region declined from 26.4 deaths per 100,000 in 1996-2000 to 21.3 deaths per 100,000 in 2005-2009.
- Point Douglas and Downtown community areas have the highest child mortality rates (55.5/100,000 and 48.8/100,000, respectively) and were more than 2-fold higher than the overall Winnipeg child death rate (21.3/100,000).
- Lower urban household income was associated with higher child mortality rate: the rate in the lowest income communities was 3.39 times higher than that in the highest income communities in 2000-2004; the inequality amongst communities has increased since then (the rate ratio between the highest and lowest rates is 4.32 in 2005-2009).

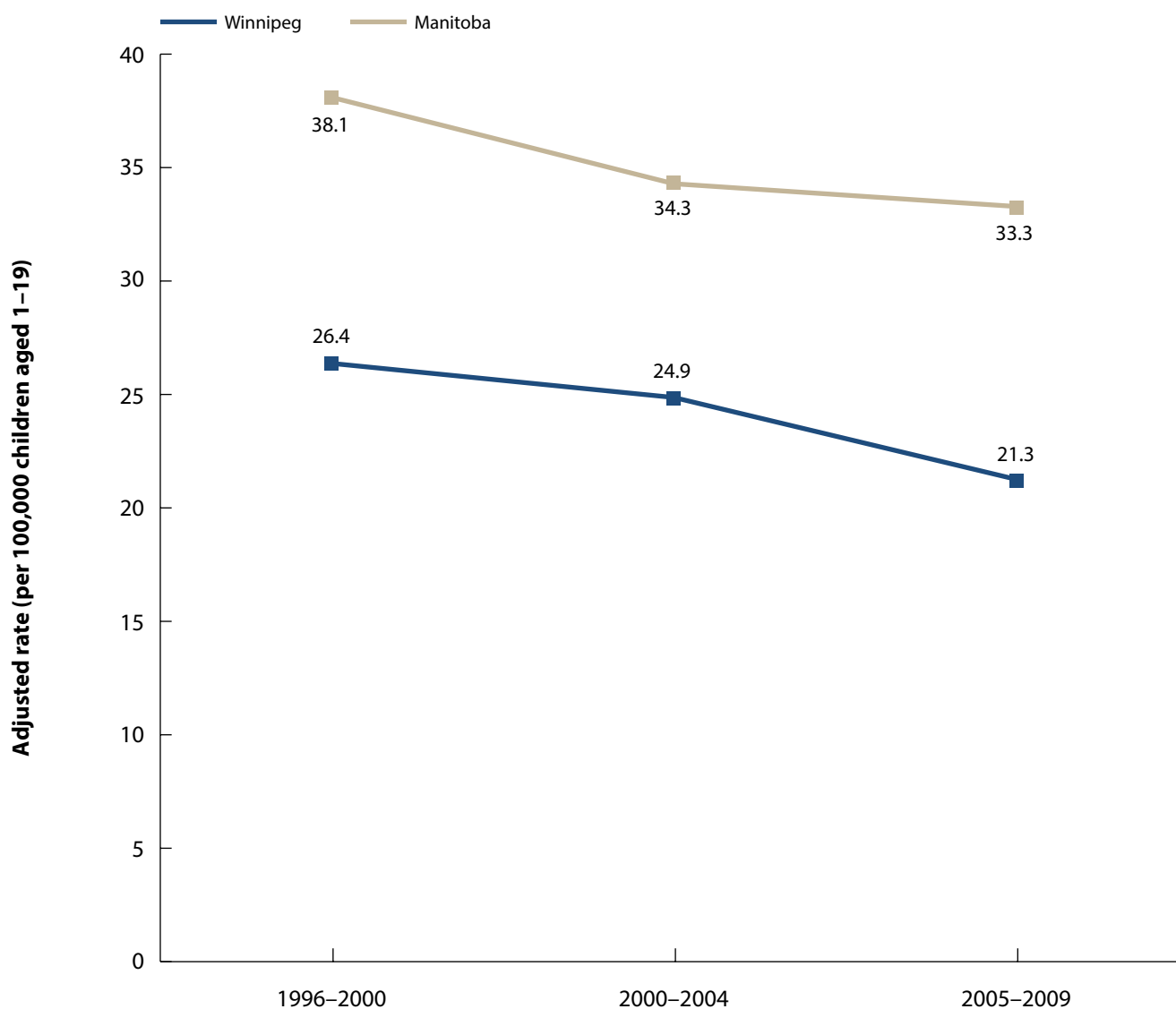
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Child mortality rates are reported by including different groups of ages (e.g., under 5, 1-11 years, 1-19 years). Therefore, caution is needed when comparing to child mortality data from other regions or at the national level.
- Injuries are the leading cause of death for children.

Figure A3.2.3.a1

Trends in Child Mortality Rates in Winnipeg & Manitoba

Age- & sex-adjusted rate per 100,000 children aged 1–19, 1996–2000 to 2005–2009



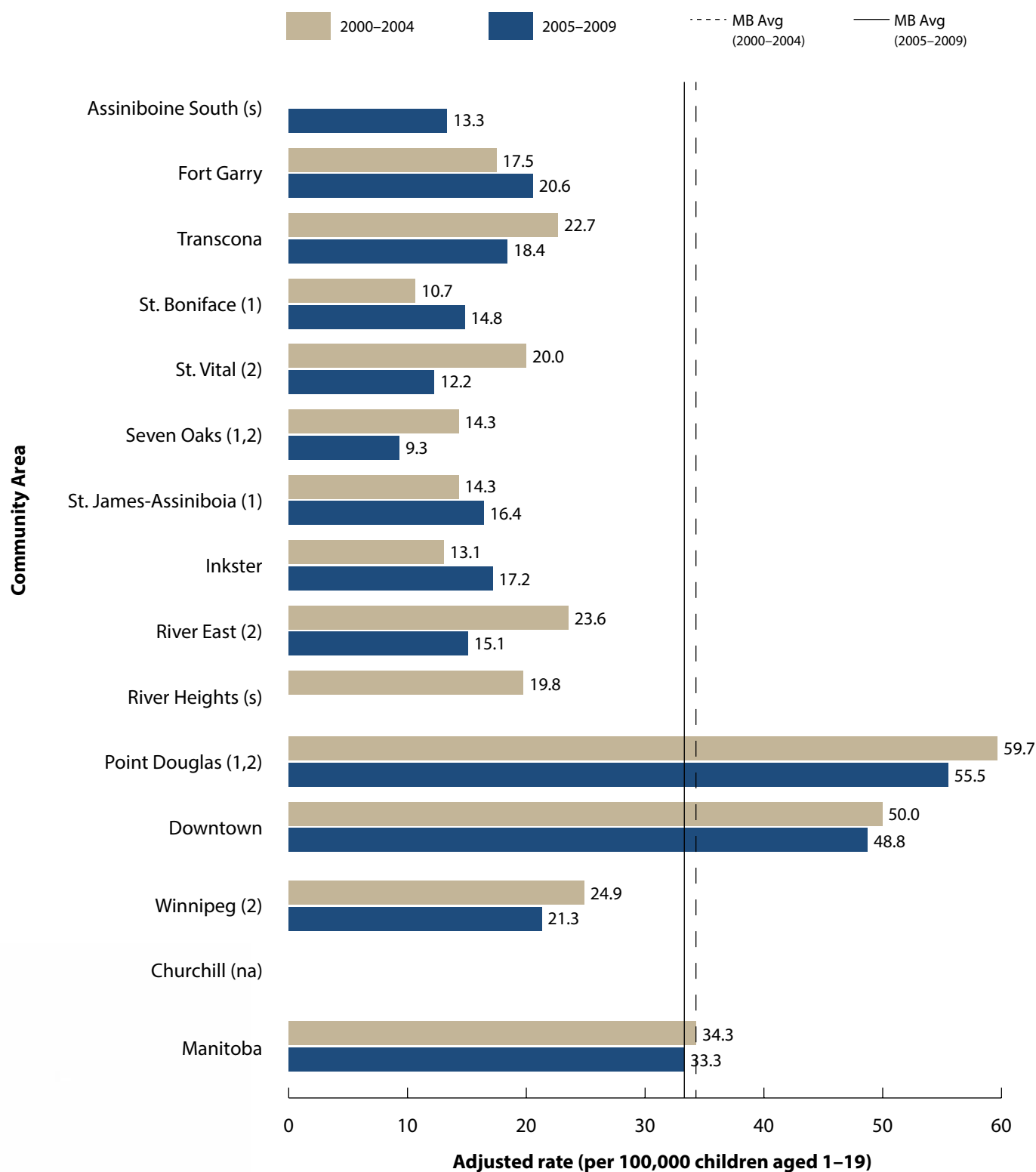
Sources: Manitoba Centre for Health Policy, 2008 & 2012

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.2.3.a2

Child Mortality Rates by Winnipeg Community Area

Age- & sex-adjusted rate (deaths per 100,000 children aged 1–19), 2000–2004 & 2005–2009



Source: Manitoba Centre for Health Policy, 2012

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

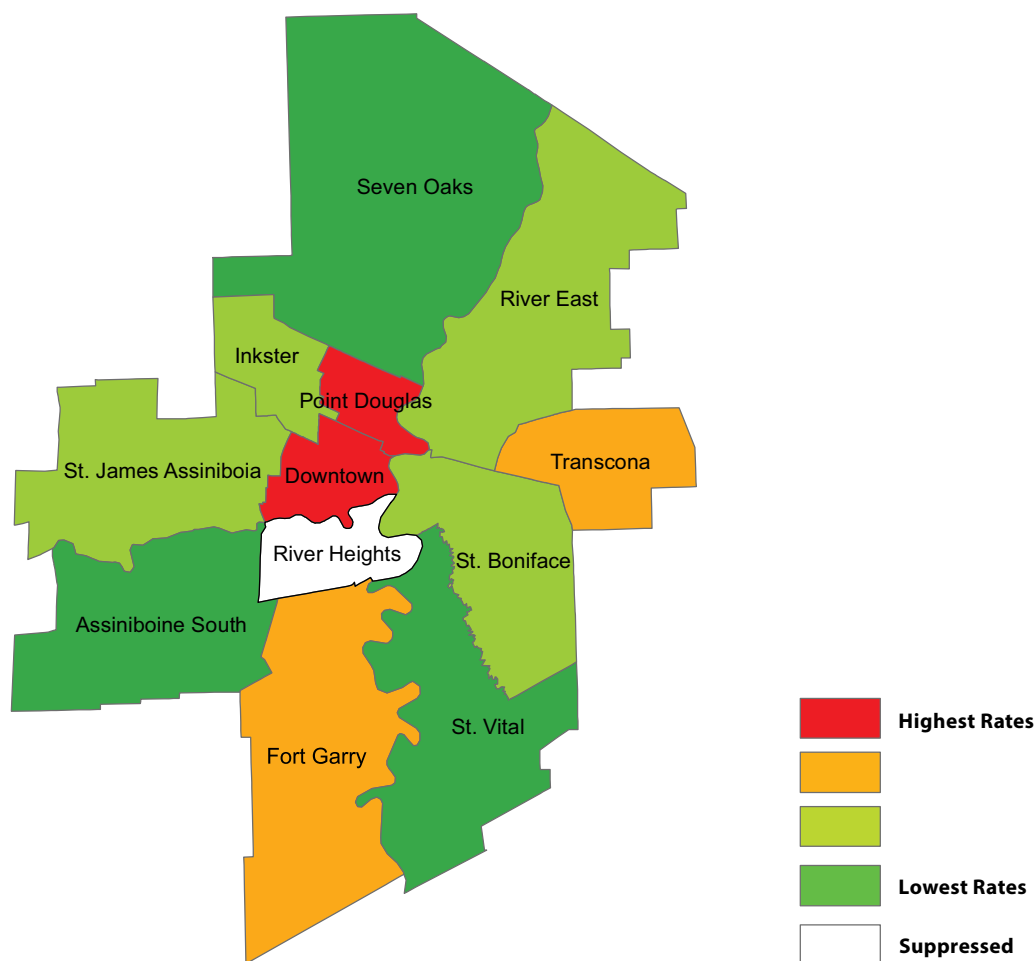
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

's' indicates that the results were suppressed to ensure confidentiality

(na) - data unavailable

Child Mortality Rates by Winnipeg Community Area

Age- & sex-adjusted rate (deaths per 100,000 children aged 1–19), 2005–2009



Source: Manitoba Centre for Health Policy, 2012

Table A3.2.3.a1

Health Inequality in Child Mortality Rates (deaths per 100,000 children age 1–19 years), by Urban Income Quintile

Child Mortality Rates by Urban Income Quintile	Time Period	
	2000–2004 Deaths per 100,000 children	2005–2009 Deaths per 100,000 children
Highest Urban Income Quintile (U5)	15.0 deaths	11.4 deaths
U4	12.3 deaths	11.5 deaths
U3	21.2 deaths	14.6 deaths
U2	26.1 deaths	18.1 deaths
Lowest Urban Income Quintile (U1)	50.8 deaths	49.3 deaths
Absolute difference (U1-U5)	35.8 deaths	37.9 deaths
Ratio (U1/U5)	3.39	4.32

Source: Manitoba Center for Health Policy, 2012



Indicator: Premature Mortality Rate (PMR)

DEFINITION: The rate of deaths in Winnipeg Regional Health Authority (the Region) residents under 75 years per 1,000 residents per year.

NUMERATOR: Number of deaths before age 75 (= premature deaths) in a given year.

DENOMINATOR: Number of the Region's residents under age 75 as of December 31 of the year.

CALCULATION: Average annual rates were calculated using data of a 5-year period and were age- and sex-adjusted to the Manitoba population under 75 years old in the first time period (i.e., 2002-2006 Manitoba population as the standard population for 2002-2006 and 2007-2011 rates; 1996-2000 Manitoba population as the standard population for 1996-2000 and 2001-2005 rates). *Note:* 2001-2005 data is not reported in the trend chart as it overlaps with the 2002-2006 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Premature mortality rate (PMR) in the Region has declined over time from 3.4 deaths per 1,000 in 1996-2000 to 2.9 deaths per 1,000 in 2007-2011.
- Residents living in central areas (e.g., Point Douglas and Downtown) of Winnipeg were more likely to die before the age of 75.
- Household income was inversely associated with PMR: (a) PMR in the lowest income neighborhood cluster (NC)—Point Douglas South—was 4-fold higher than that of highest income NC (River East N) in 2002-2006 and 5-fold higher in 2007-2011; (b) PMR in the lowest income communities was nearly 3-fold higher than that in the highest income communities.

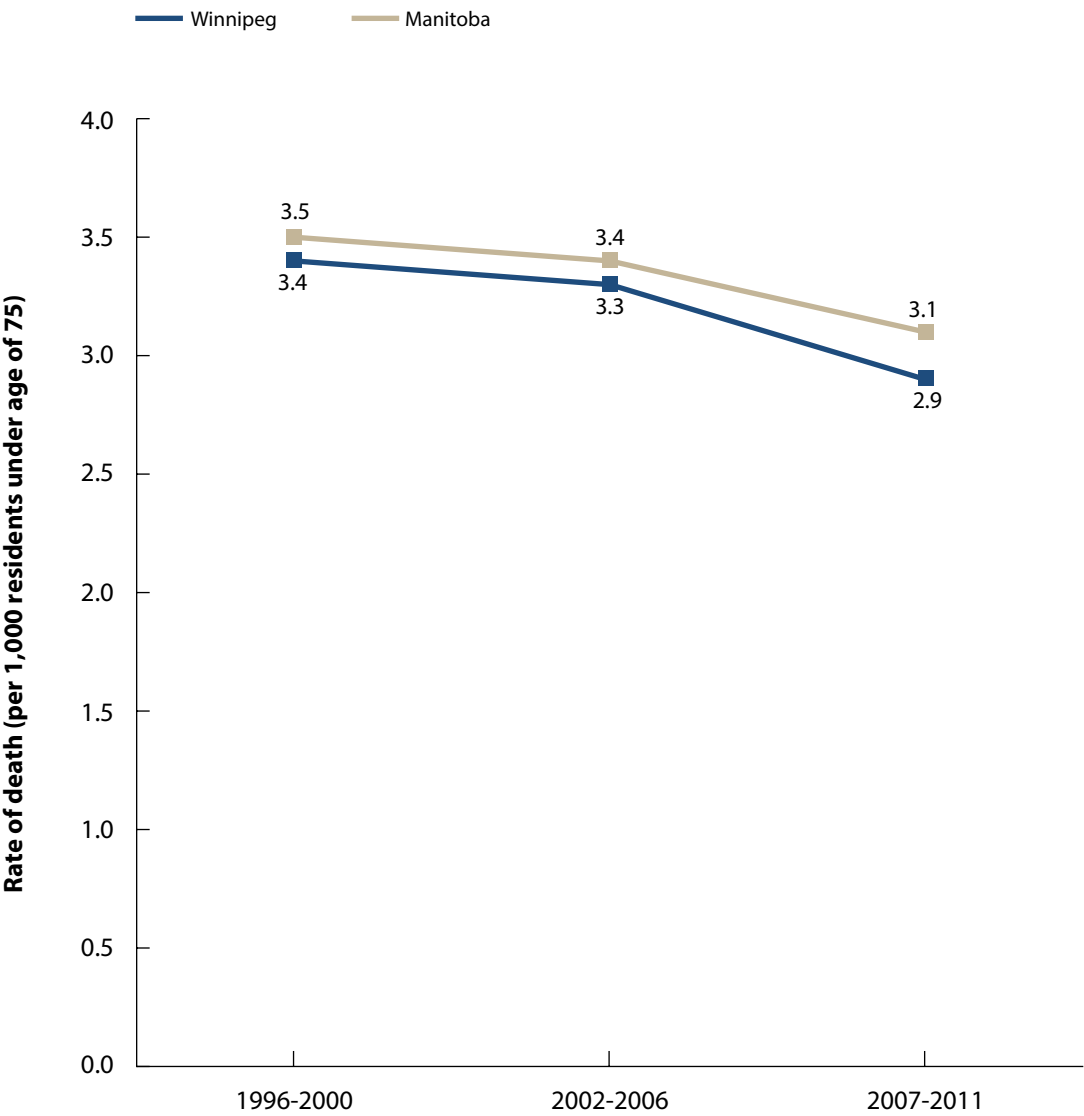
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- PMR is related to many factors (e.g., socioeconomic status, healthcare, environmental conditions, housing, education, and lifestyles) and includes deaths at younger ages.
- While overall PMR has declined over time, the income-related inequality seen between higher and lower income communities has increased.

Figure A3.2.4.a1

Trends in Premature Mortality Rates (PMR) in Winnipeg & Manitoba

Age- & sex-adjusted annual rate of deaths before age 75 (per 1,000 residents) years, 1996–2011

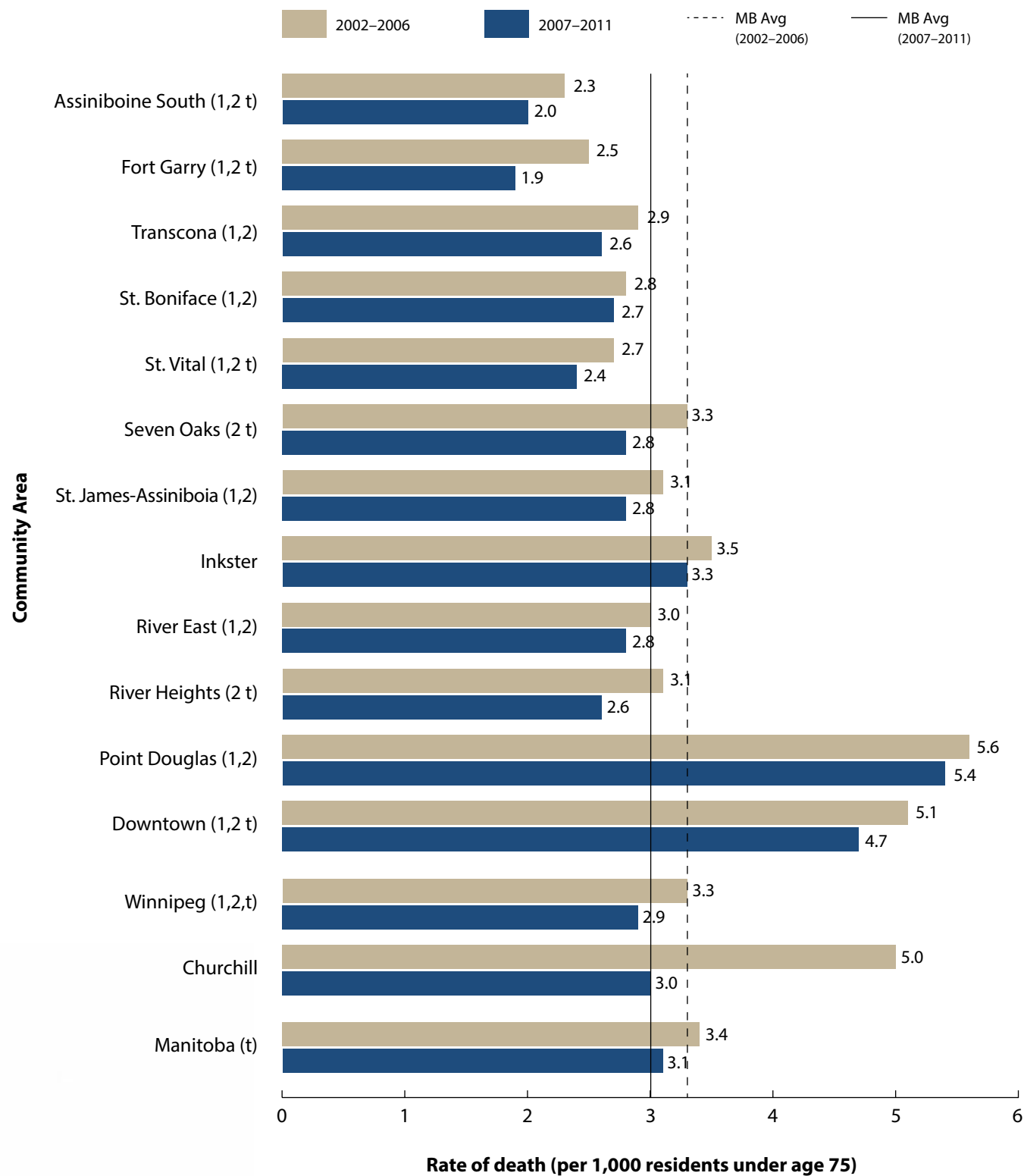


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.2.4.a2

Premature Mortality Rates (PMR) by Winnipeg Community Area

Age- & sex-adjusted annual rate of deaths before age 75 (per 1,000 residents), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

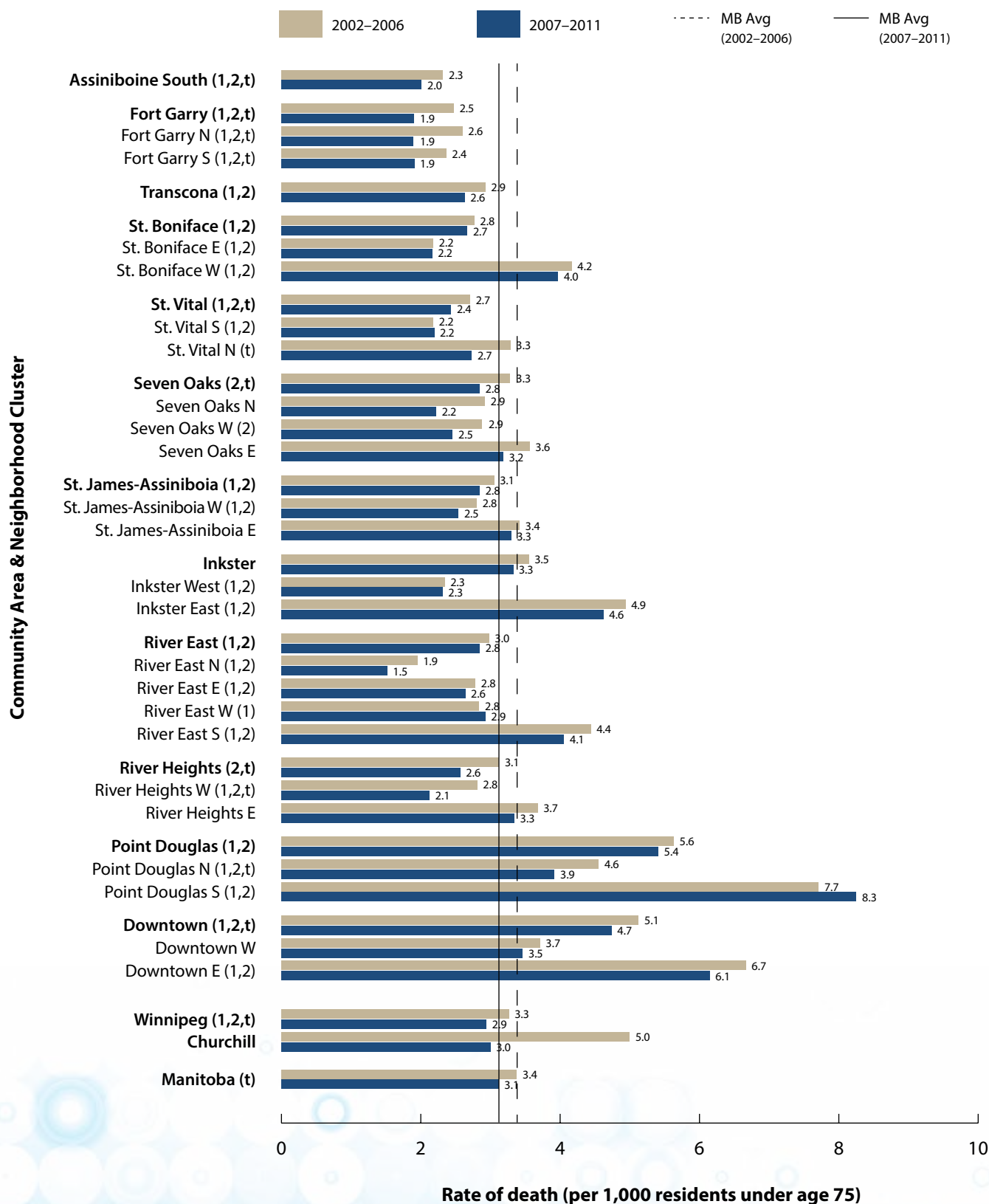
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.4.a3

Premature Mortality Rates (PMR) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted annual rate of deaths before age 75 (per 1,000 residents), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

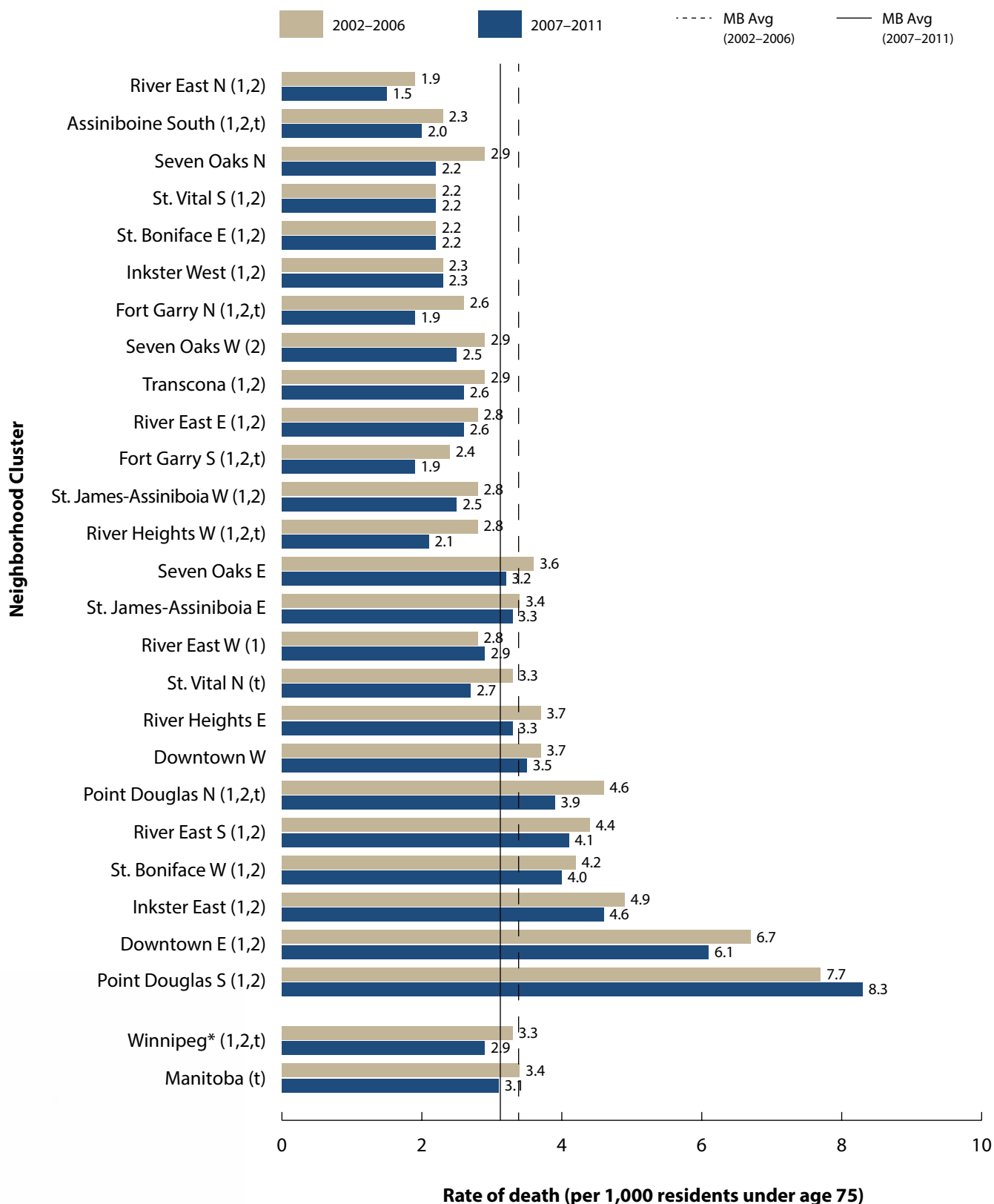
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.4.a4

Premature Mortality Rates (PMR) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted annual rate of deaths before age 75 (per 1,000 residents), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

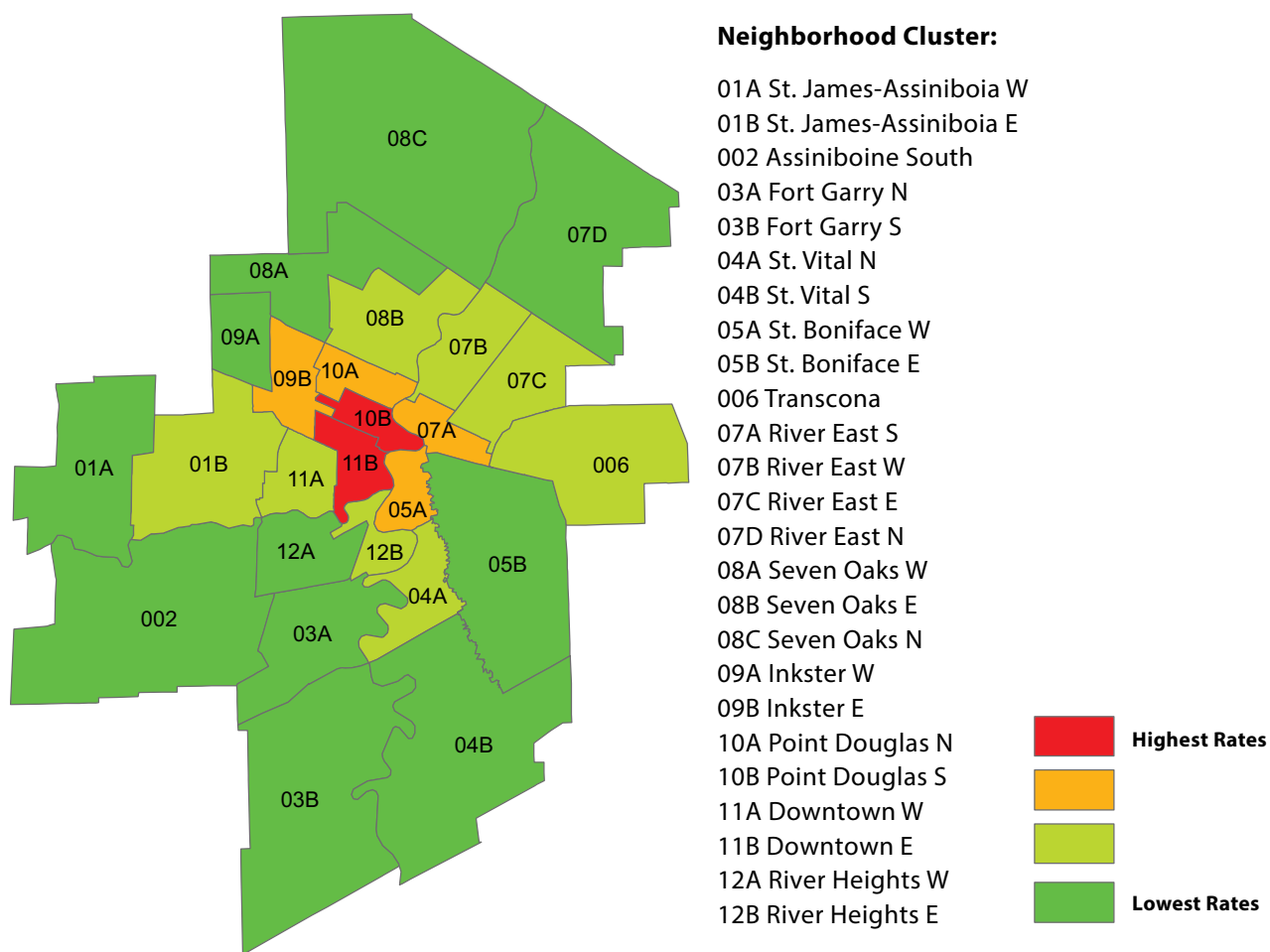
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Premature Mortality Rates (PMR) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted annual rate of deaths before age 75 (per 1,000 residents), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.2.4.a1

**Health Inequality in Premature Mortality Rates (PMR) (deaths per 1,000 residents aged 1-74 years),
by Median Household Income & Urban Income Quintile**

Health Inequality Measures	Time Period	
PMR by Neighborhood Cluster (NC) <i>Median Household Income</i>	2002-2006 Premature deaths per 1000 residents aged 1-74 years	2007-2011 Premature deaths per 1000 residents aged 1-74 years
Highest income NC PMR (River East N)	1.9 deaths	1.5 deaths
Lowest income NC PMR (Point Douglas S)	7.7 deaths	8.3 deaths
Absolute difference (Lowest income NC – Highest income NC)	5.8 deaths	6.8 deaths
Ratio (Lowest income NC / Highest income NC)	4.05	5.53
PMR by <i>Urban Income Quintile</i>	2002-2006 Premature deaths per 1000 residents aged 1-74 years	2007-2011 Premature deaths per 1000 residents aged 1-74 years
Highest Urban Income Quintile (U5)	2.0 deaths	1.6 deaths
U4	2.3 deaths	2.1 deaths
U3	2.9 deaths	2.7 deaths
U2	3.5 deaths	3.2 deaths
Lowest Urban Income Quintile (U1)	5.3 deaths	5.0 deaths
Absolute difference (U1-U5)	3.3 deaths	3.4 deaths
Ratio (U1/U5)	2.65	3.12

Source: Manitoba Centre for Health Policy, 2013

Indicator: Potential Years of Life Lost (PYLL)

DEFINITION: The number of years of potential life not lived when a person dies “prematurely” before age 75 (deaths per 1,000 residents aged under 75 years). For each death, the PYLL value is calculated as the difference (in years) between age at death and 75 years of age.

NUMERATOR: Sum of years lost due to all deaths before age 75.

DENOMINATOR: Number of Winnipeg Regional Health Authority (the Region) residents under 75 years.

CALCULATION: Average annual numbers were calculated for two 5-year periods and were age- and sex-adjusted to the Manitoba population aged 1 to 74 in the first time period (i.e., 2002-2006 Manitoba population as the standard population for 2002-2006 and 2007-2011; 1996-2000 Manitoba population as the standard population for 1996-2000 and 2001-2005). *Note:* 2001-2005 data is not reported in the trend chart as it overlaps with the 2002-2006 data.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Crude and adjusted PYLLs have remained stable over time.
- There was significant variation in PYLL across the Region, with Downtown East and Point Douglas South having more than twice the Region’s average in years of life lost prematurely.
- Low income was strongly associated with larger PYLL: (a) PYLL in the lowest income neighborhood cluster (NC) was nearly 6 times higher than that for the highest income NC in 2002-06 and the inequality became wider 5 years later. (b) PYLL in the lowest income quintile communities was 3.55 times than that in the highest income quintile communities in 2002-06 and 3.64 times in 2007-11.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

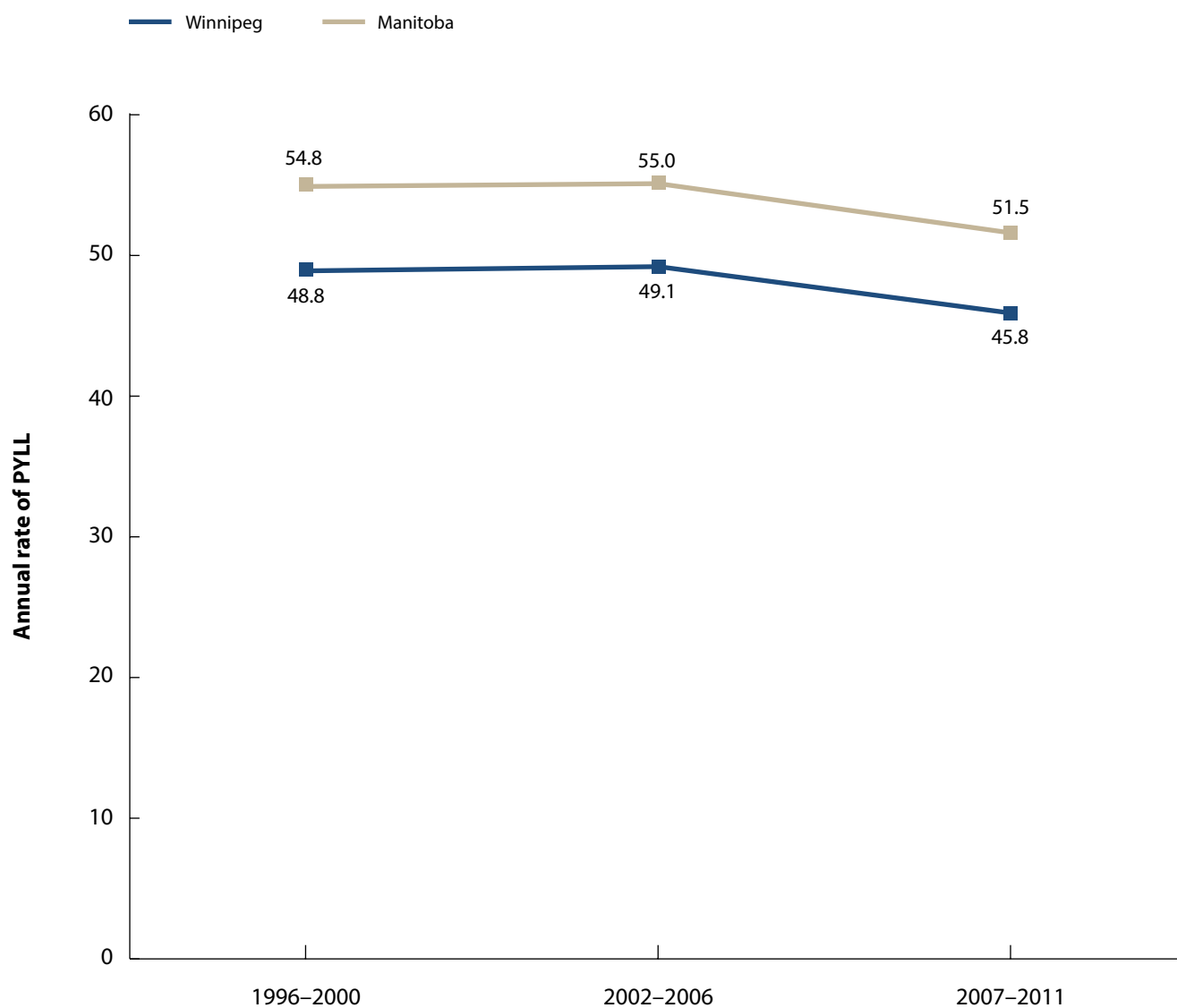
- PYLL is more sensitive to deaths at young ages than other mortality indicators. While the death of a young person (e.g., 50-year-old) contributes the same “1 death” to premature mortality as the death of an older person (e.g., 70-year-old), it contributes more (i.e., 25 years vs. 5 years) to PYLL.
- Age-standardized PYLL in Canada has declined from 47.2 years per 1,000 in 1994-1998 to 38.6 years per 1,000 in 2004-2008.¹

¹ Statistics Canada. *Potential years of life lost, by selected causes of death and sex, five-year average, Canada and Inuit Regions, every 5 years., CANSIM (database).* (Accessed: 2014-03-11)

Figure A3.2.4.b1

Trends in Potential Years of Life Lost (PYLL) in Winnipeg & Manitoba

Age- & sex-adjusted PYLL (years per 1,000 residents aged 1–74), 1996–2011

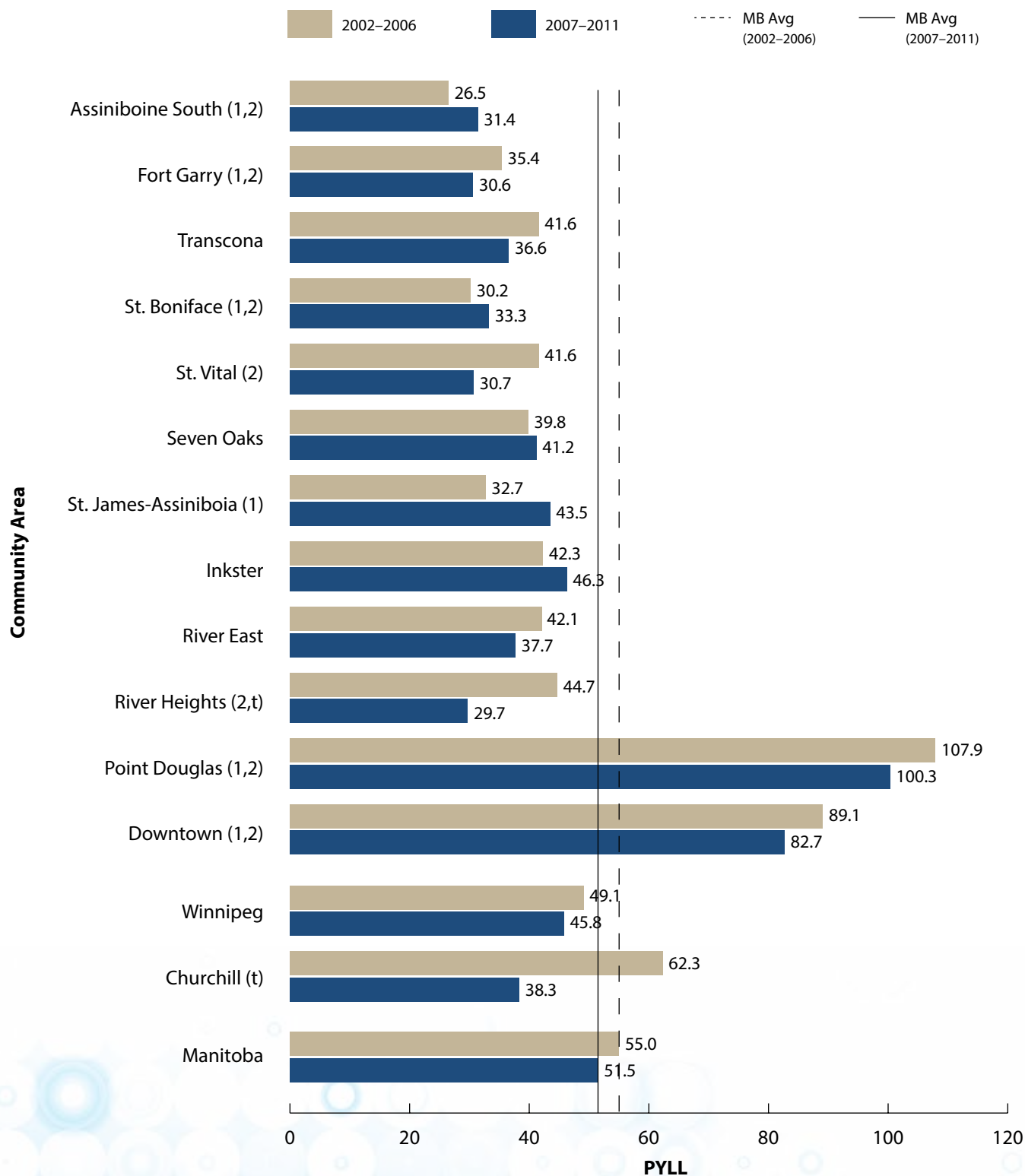


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.2.4.b2

Potential Years of Life Lost (PYLL) by Winnipeg Community Area

Age- & sex-adjusted PYLL (years per 1,000 residents aged 1–74), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

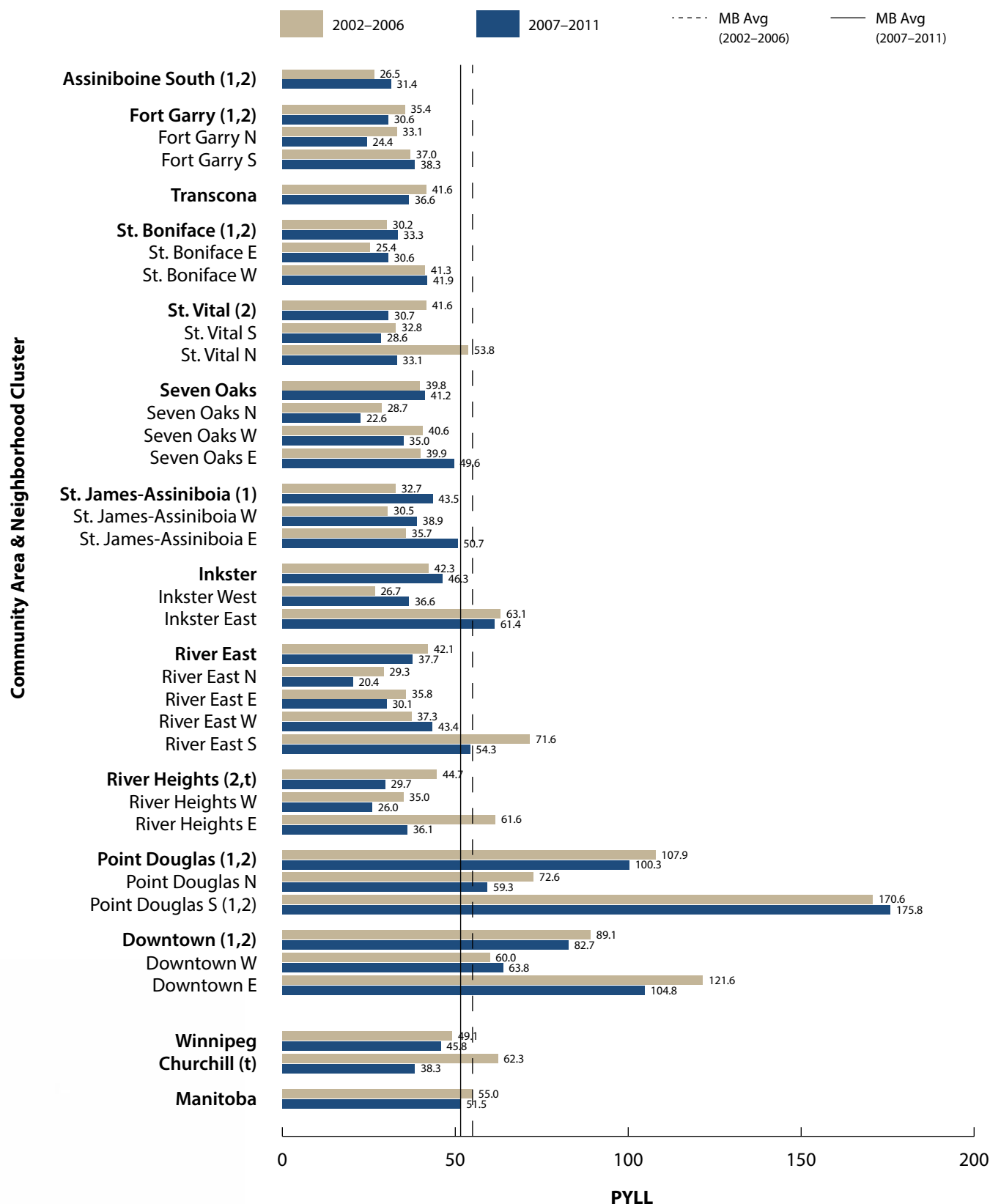
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.4.b3

Potential Years of Life Lost (PYLL) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted adjusted PYLL (years per 1,000 residents aged 1–74), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

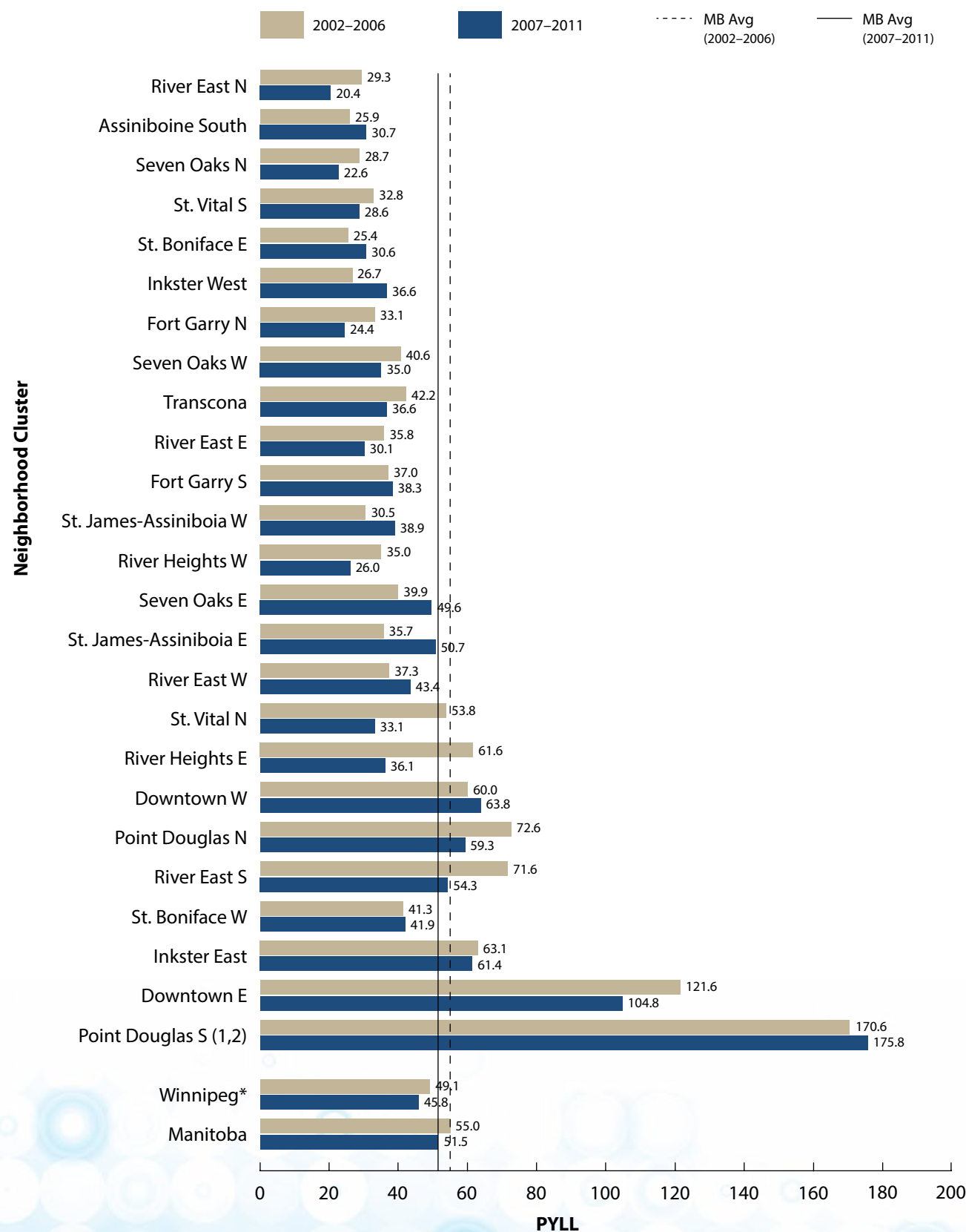
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.2.4.b4

Potential Years of Life Lost (PYLL) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted PYLL (years per 1,000 residents aged 1–74), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

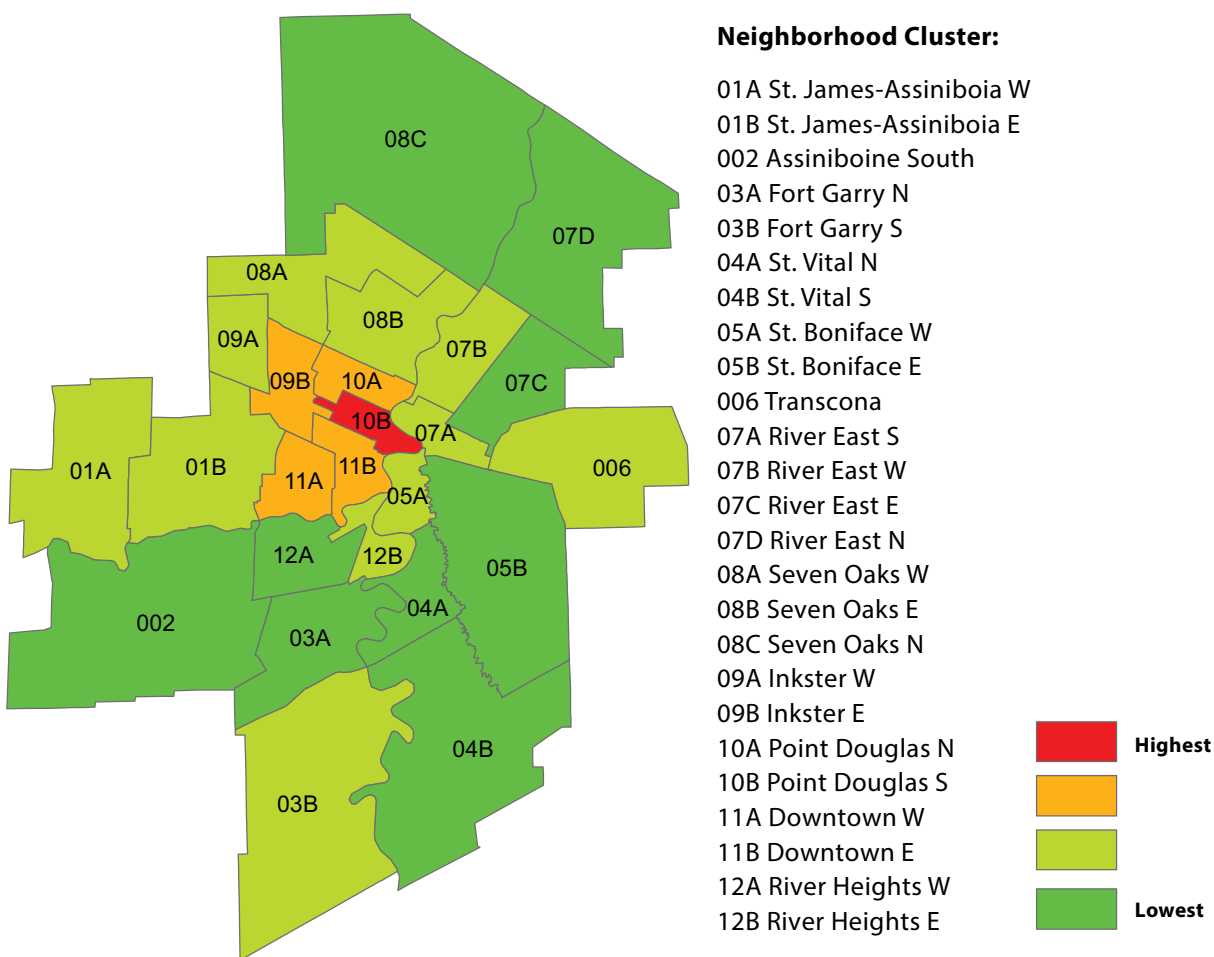
*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Potential Years of Life Lost (PYLL) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted PYLL (years per 1,000 residents aged 1–74), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.2.4.b1

Health Inequality in PYLL (years per 1,000 residents aged under 75 years), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
PYLL by <i>Neighborhood Cluster (NC) median household income</i>	2002–2006 Years (lost) per 1,000 residents under age 75	2007–2011 Years (lost) per 1,000 residents under age 75
Highest income NC (River East N)	29.3 years	20.4 years
Lowest income NC (Point Douglas S)	170.6 years	175.8 years
Absolute difference (Lowest income NC – Highest income NC)	141.3 years	155.4 years
Ratio (Lowest income NC / Highest income NC)	5.82	8.62
PYLL by <i>Urban Income Quintile</i>	2002–2006 Years (lost) per 1,000 residents under age 75	2007–2011 Years (lost) per 1,000 residents under age 75
Highest Urban Income Quintile (U5)	25.3 years	23.2 years
U4	31.7 years	31.5 years
U3	38.9 years	37.6 years
U2	50.5 years	47.0 years
Lowest Urban Income Quintile (U1)	89.8 years	84.4 years
Absolute difference (U1–U5)	64.5 years	61.2 years
Ratio (U1/U5)	3.55	3.64

Source: Manitoba Centre for Health Policy, 2013



Indicator: Top 10 Causes of Premature Death

DEFINITION: The most frequent causes of premature death for residents of the Winnipeg Regional Health Authority (the Region) and Manitoba under age 75 in a 5-year period (reported here for two 5-year time periods: 2000–2004 and 2005–2009). Causes of death from Manitoba's Vital Statistics death records were grouped by ICD–10 chapter.¹

NUMERATOR: Number of premature deaths (under age 75) by cause which occur in the Region and Manitoba.

DENOMINATOR: Total number of all premature deaths (under age 75) in the Region and Manitoba.

CALCULATION: Average annual number of deaths by cause and the percentage (by cause) of total deaths.

Note: "Circulatory diseases" includes heart attack and stroke.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2007–2011, the top causes of premature death (under age 75) in Winnipeg were cancer (38.7%) and circulatory diseases (22.0%), followed by injury and poisoning (12.3%).
- The top two causes accounted for 60.7% of all premature deaths.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Although the top 3 causes of death remain the same between the top causes of death and the top causes of **premature** death, cancer is ranked first in premature deaths.

¹ The International Classification of Disease tenth revision (ICD-10) is a system of coding created by the World Health Organization that notes various medical records including diseases, symptoms, abnormal findings and external causes of injury.

Table A3.2.4.c1

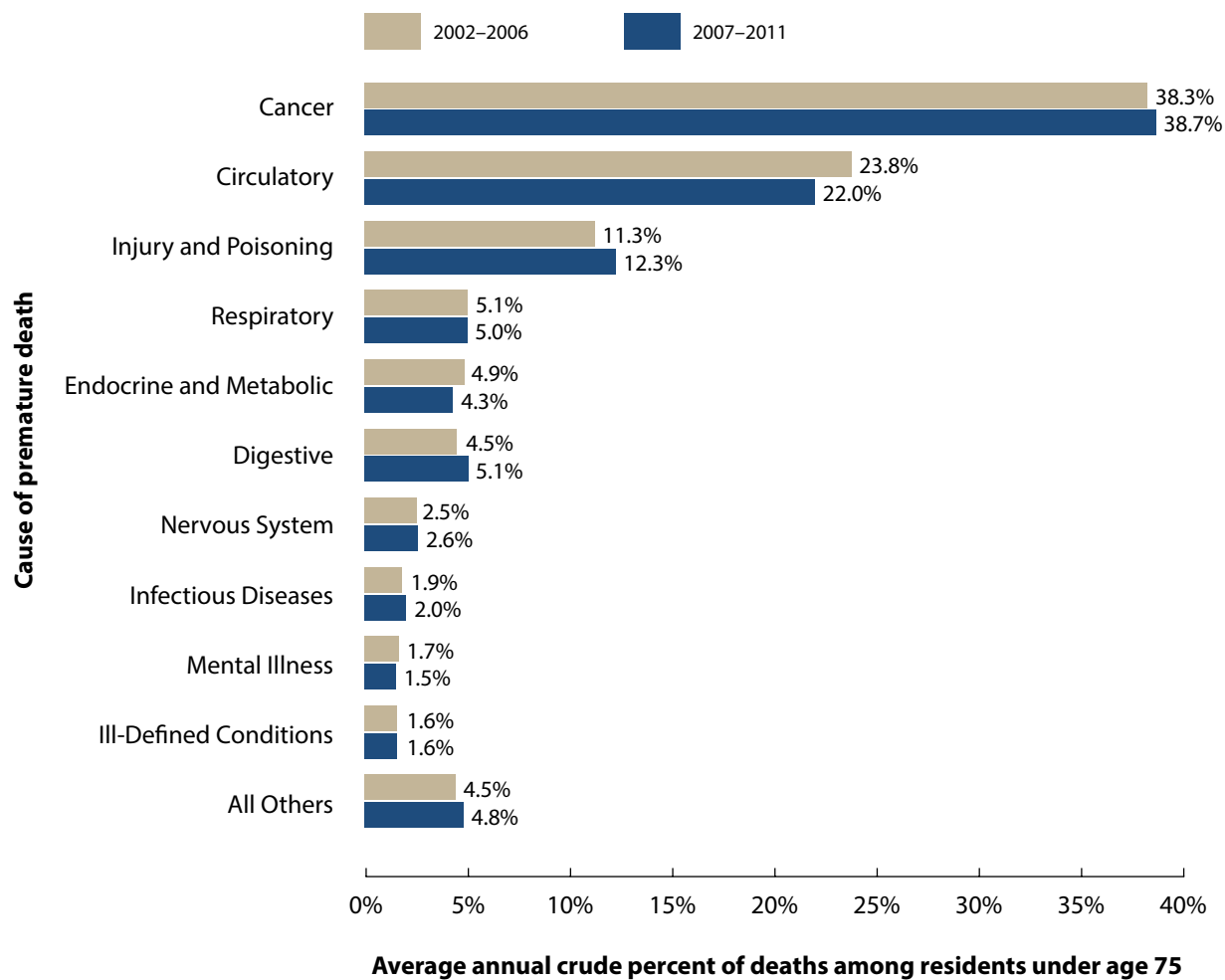
Top 10 Causes of Premature Death in Winnipeg & Manitoba, 2002–2006 & 2007–2011

Top 10 Causes of Premature Mortality, 2002–2006 & 2007–2011					
	2002–2006			2007–2011	
Area	Cause	Deaths	Area	Cause	Deaths
Winnipeg	Cancer	3706	Winnipeg	Cancer	3784
	Circulatory system	2305		Circulatory system	2154
	Injury & Poisoning	1090		Injury & Poisoning	1201
	Respiratory system	489		Digestive system	495
	Endocrine & Metabolic	473		Respiratory system	491
	Digestive system	436		Endocrine & Metabolic	420
	Nervous system	246		Nervous system	254
	Infectious diseases	179		Infectious diseases	196
	Mental illness	164		Ill defined conditions	156
	Ill defined conditions	155		Mental illness	150
Manitoba	Cancer	6444	Manitoba	Cancer	6678
	Circulatory system	4170		Circulatory system	4023
	Injury & Poisoning	2199		Injury & Poisoning	2542
	Endocrine & Metabolic	957		Respiratory system	990
	Respiratory system	908		Endocrine & Metabolic	930
	Digestive system	759		Digestive system	863
	Nervous system	451		Nervous system	515
	Ill defined conditions	314		Infectious diseases	325
	Mental illness	308		Ill defined conditions	290
	Infectious diseases	291		Mental illness	285

Source: Manitoba Center for Health Policy, 2013

Figure A3.2.4.c1

Top Causes of Premature Death in Winnipeg, 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013



Indicator: Top 10 Causes of Mortality

DEFINITION: The most frequent causes of death are reported in a 5-year period (reported here for two 5-year time periods: 2000–2004 and 2005–2009) for both the Winnipeg Regional Health Authority (the Region) and Manitoba. Causes of death from Manitoba Vital Statistics death records were grouped by ICD–10 chapter.¹

NUMERATOR: Number of deaths by cause which occur in the Region and Manitoba.

DENOMINATOR: Total number of all deaths in the Region and Manitoba.

CALCULATION: Average annual number of deaths by cause and the percentage (by cause) of total deaths.

Note: “Circulatory diseases” includes heart attack and stroke.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2007–2011, the top causes of death in Winnipeg were circulatory diseases (30.3%) and cancer (28.7%), followed by respiratory diseases (8.0%), injury and poisoning (6.8%), mental illness (6.6%), and endocrine and metabolic diseases (4.2%).
- It is important to note that the three top causes alone (circulatory, cancer, and respiratory diseases) accounted for two thirds of all deaths in the Region.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Circulatory disease, cancer, and respiratory disease are the top 3 causes of death and this pattern has remained unchanged over the past decade.

¹ The International Classification of Disease tenth revision (ICD-10) is a system of coding created by the World Health Organization (WHO) that notes various medical records including diseases, symptoms, abnormal findings and external causes of injury.

Table A3.2.5.a1

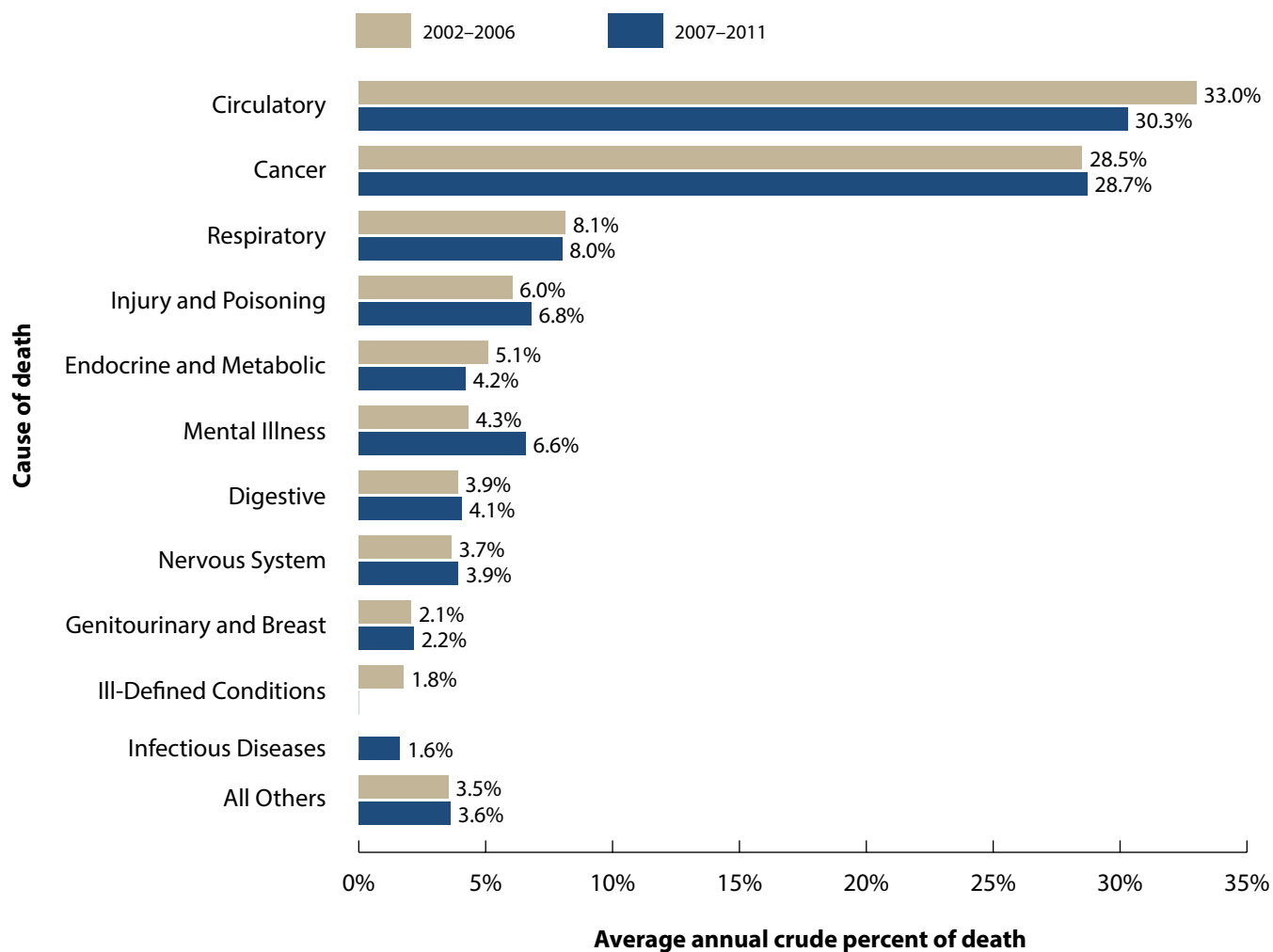
Top 10 Causes of Mortality in Winnipeg & Manitoba, 2002–2006 & 2007–2011

Top 10 Causes of Mortality, 2002–2006 & 2007–2011					
	2002–2006			2007–2011	
Area	Cause	Deaths	Area	Cause	Deaths
Winnipeg	Circulatory system	8722	Winnipeg	Circulatory system	8253
	Cancer	7529		Cancer	7820
	Respiratory system	2153		Respiratory system	2184
	Injury & poisoning	1598		Injury & poisoning	1852
	Endocrine & Metabolic	1343		Mental illness	1793
	Mental illness	1141		Endocrine & metabolic	1147
	Digestive system	1029		Digestive system	1105
	Nervous system	965		Nervous system	1069
	Genitourinary & Breast	545		Genitourinary & Breast	589
	Ill-defined conditions	468		Infectious diseases	443
Manitoba	Circulatory system	15708	Manitoba	Circulatory system	14871
	Cancer	13113		Cancer	13599
	Respiratory system	4003		Respiratory system	4118
	Injury & poisoning	3132		Injury & poisoning	3700
	Endocrine & Metabolic	2645		Mental illness	2931
	Mental illness	1891		Endocrine & metabolic	2385
	Digestive system	1829		Digestive system	1939
	Nervous system	1821		Nervous system	1934
	Genitourinary system	1099		Genitourinary system	1059
	Ill-defined conditions	1037		Ill-defined conditions	916

Source: Manitoba Center for Health Policy, 2013

Figure A3.2.5.a1

Top Causes of Death in Winnipeg, 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013



Indicator: Cancer Mortality Rate

DEFINITION: A cancer mortality rate is the number of deaths of a specific site/type of cancer occurring in a specified population during a two-year period, usually expressed as the number of cancer deaths per 100,000 people.

NUMERATOR: All persons dying of an invasive cancer (excluding non-melanoma skin cancers as per standard national/international protocols) in a given year.

DENOMINATOR: All Winnipeg and Manitoba residents from Manitoba Health's registry database in a given year.

CALCULATION: (Number of invasive cancer deaths/Number of residents) × 100,000. The population used depends on the rate to be calculated. For cancer sites that occur in only one sex, the sex-specific population (e.g., females for cervical cancer) is used.

DATA SOURCES: Manitoba Cancer Registry, deaths from cancer between 2005-2007 & 2008-2010

KEY FINDINGS:

- Age-standardized mortality rates for all invasive cancer (206.1 and 203.3 per 100,000 in 2005-2007 and 2008-2010) and specific sites have been stable since 2005.
- In the Winnipeg Regional Health Authority (the Region) persons with lung cancer have the highest age-standardized mortality rate: 49.5 and 50.9 deaths per 100,000 residents in 2005-2007 and 2008-2010, respectively.

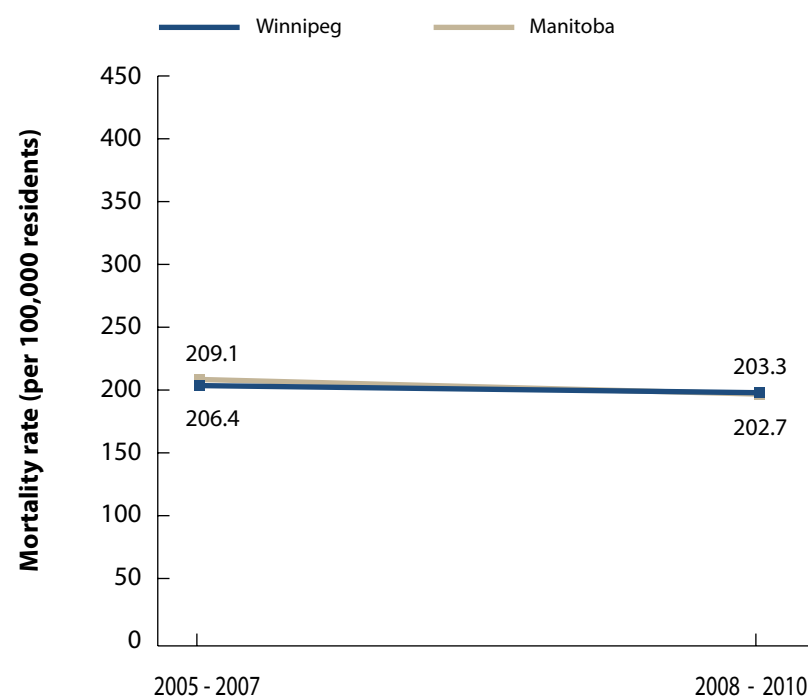
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Cancer is the number one cause of **premature** death (accounting for 38.7% of deaths occurring in persons before age 75 in 2007-2011) (Ref: Top causes of premature death) and the number two cause of **all** deaths (accounting for 28.7% of all deaths in 2007-2011) (Ref: Top causes of death).

Figure A3.2.5.b1

Trends in All Invasive Cancer Mortality Rates in Winnipeg & Manitoba

Annual age-standardized mortality rate per 100,000 residents, 2005–2007 & 2008–2010



Sources: Manitoba Cancer Registry, 2005–2007 & 2008–2010

Table A3.2.5.b1

Cancer Mortality Rates by Site of Cancer in Winnipeg & Manitoba

Annual age-standardized rates per 100,000 residents, 2005–2007 & 2008–2010

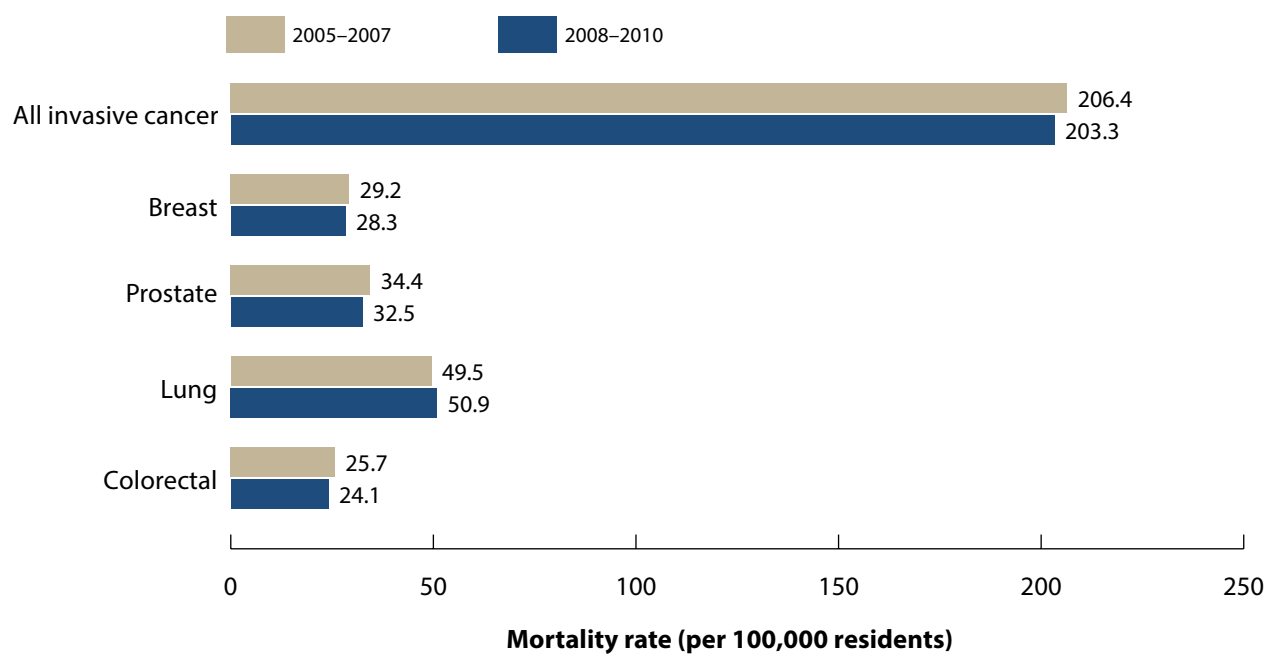
CANCER TYPE	2005–2007 CASES PER 100,000		2008–2010 CASES PER 100,000	
	Winnipeg	Manitoba	Winnipeg	Manitoba
All invasive cancer	206.4	209.1	203.3	202.7
Breast (female)	29.2	28.9	28.3	27.3
Prostate	34.4	38.5	32.5	33.9
Lung	49.5	50.4	50.9	51.1
Colorectal	25.7	26.2	24.1	25.3

Sources: Manitoba Cancer Registry, 2005–2007 & 2008–2010

Figure A3.2.5.b2

Cancer Mortality Rates in Winnipeg

Annual age-standardized mortality rate per 100,000 residents, 2005–2007 & 2008–2010



Sources: Manitoba Cancer Registry 2005–2007 & 2008–2010



Indicator: Injury Death Rate

DEFINITION: The number of injury deaths in a given year per 100,000 population (as of June 1 of the same year). Injury death is defined as an injury identified as the underlying cause of death by the presence of one of the ICD-10 V, W, X, Y-codes in the last field under the cause of death section of the death certificate, except those for injuries that occurred during surgical or medical care (ICD-10-CA codes Y60-Y69, Y88.1), reactions or complications due to medical care (ICD-10-CA codes Y70-Y84, Y88.2, Y88.3), or adverse effects due to drugs (ICD-10-CA codes Y40-Y59, Y88.0).

NUMERATOR: The number of injury deaths in the Winnipeg Regional Health Authority (the Region) in a given year.

DENOMINATOR: The Region's population as of June 1 of the same year. Population data are derived from the Manitoba Health Insurance Registry.

CALCULATION: Rates are directly age-standardized to the 2006 Canadian population (provided by Statistics Canada). Similarly, age and sex specific injury death rates were calculated using age and sex specific death and population for any specific year.

DATA SOURCE: Manitoba Health Injuries Report: WRHA, 2000-2012

KEY FINDINGS:

- Both unintentional and intentional injury death rates in the Region have been relatively stable and lower than the provincial averages. In 2012, age-standardized mortality rates in the Region were 31.2 per 100,000 for unintentional injury deaths and 14.5 per 100,000 for intentional injury deaths, respectively.
- Age distributions were different: age-specific unintentional mortality rate was the highest among those aged 85+ (431 per 100,000 in females and 549 per 100,000 in males), while age-specific intentional mortality rate was the highest among those aged 20-24 (12.7 per 100,000 in females and 35.4 per 100,000 in males).

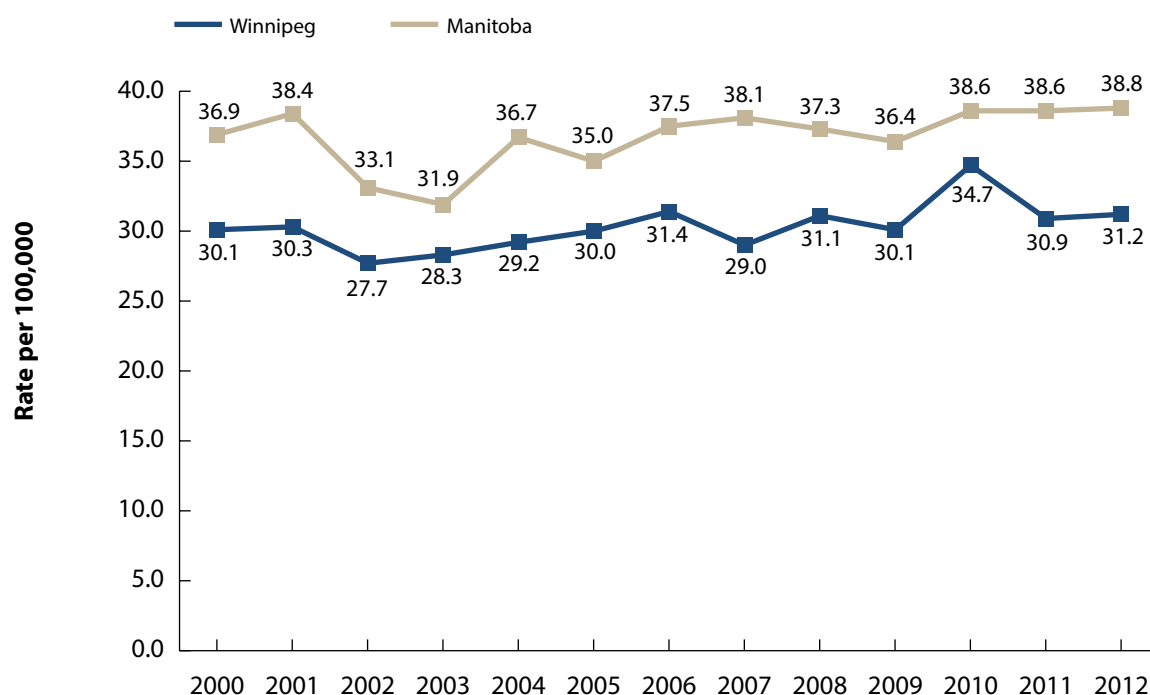
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Intentional injury deaths in those aged 20-24 years is a public health issue.

Figure A3.2.6.a1

Trends in Unintentional Injury Death Rates by Year in Winnipeg & Manitoba

Age-standardized rate per 100,000 residents, 2000–2012

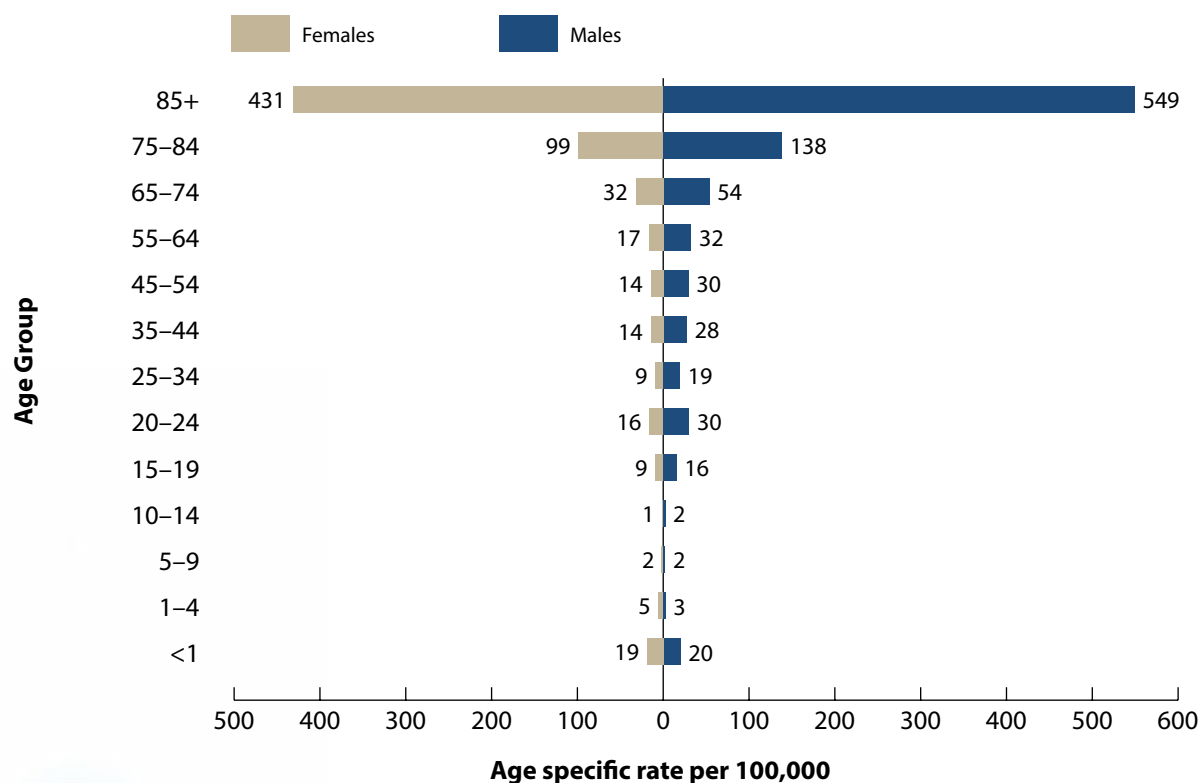


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.2.6.a2

Unintentional Injury Death Rates in Winnipeg Regional Health Authority

Residents grouped by age & sex, 2000–2012

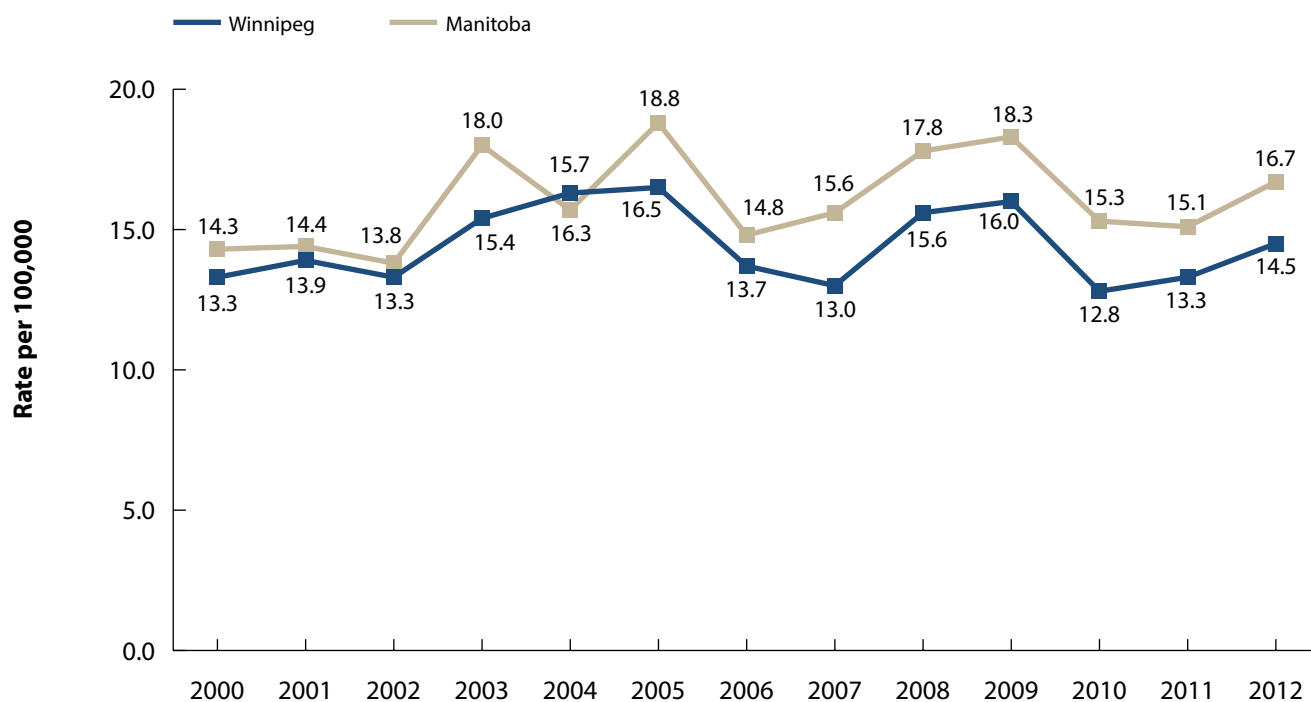


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.2.6.a3

Trends in Intentional Injury Death Rates by Year in Winnipeg & Manitoba

Age-standardized rate per 100,000 residents, 2000–2012

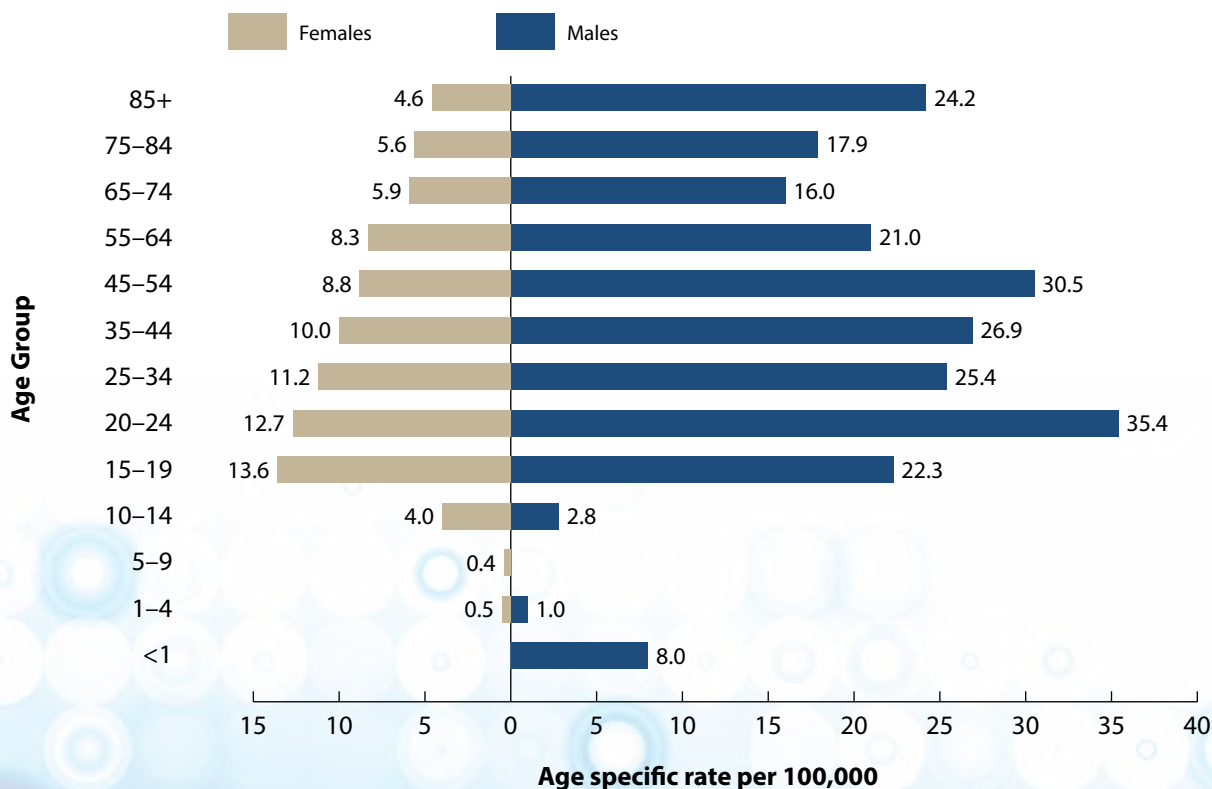


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.2.6.a4

Intentional Injury Death Rates in Winnipeg Regional Health Authority

Residents grouped by age & sex, 2000–2012



Source: Manitoba Health Injuries Report: WRHA, 2000–2012



Indicator: Suicide Death Rate

DEFINITION: Occurrence of death due to suicide in Winnipeg Regional Health Authority (the Region) residents aged 10 years and older. Suicide is defined as death related to any of following causes:

- Intentional self-harm
- Late effects of intentional self-harm
- Poisoning of undetermined intent (excluding accidental poisoning)
- Other events of undetermined intent

According to the Manitoba Centre for Health Policy (MCHP), “events of undetermined intent were included for the purposes of developing a more ‘inclusive’ definition in an attempt to overcome suspected under-counting of suicides in administrative data”.

NUMERATOR: Number of deaths in the Region’s residents (age 10 years and older) due to suicide.

DENOMINATOR: All the Region’s residents aged 10 years and older.

CALCULATION: Average annual rate was calculated and age- and sex-adjusted to the Manitoba population aged 10 years and over for the first time period (i.e., 2002-2006 as the standard population for Manitoba population for 2002-2006 and 2007-2011; 1996-2000 as the standard population for Manitoba population for 1996-2000 and 2001-2005).

Note: 2001-2005 data is not reported in the trend chart as it overlaps with the 2002-2006 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The suicide death rate in the Region was stable over time.
- The suicide death rate varied across the Region, with the highest rates in community areas (CAs) Point Douglas (4.3 suicides per 10,000 residents) and Downtown (2.7 suicides per 10,000 residents) and the lowest in the Fort Garry CA (0.8 suicides per 10,000 residents) in 2007-2011.
- Low income communities were associated with higher suicide death rates; the suicide death rate in the lowest income communities was 4.86 times and 4.25 times higher than that in the highest income communities in 2002-2006 and 2007-2011, respectively.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

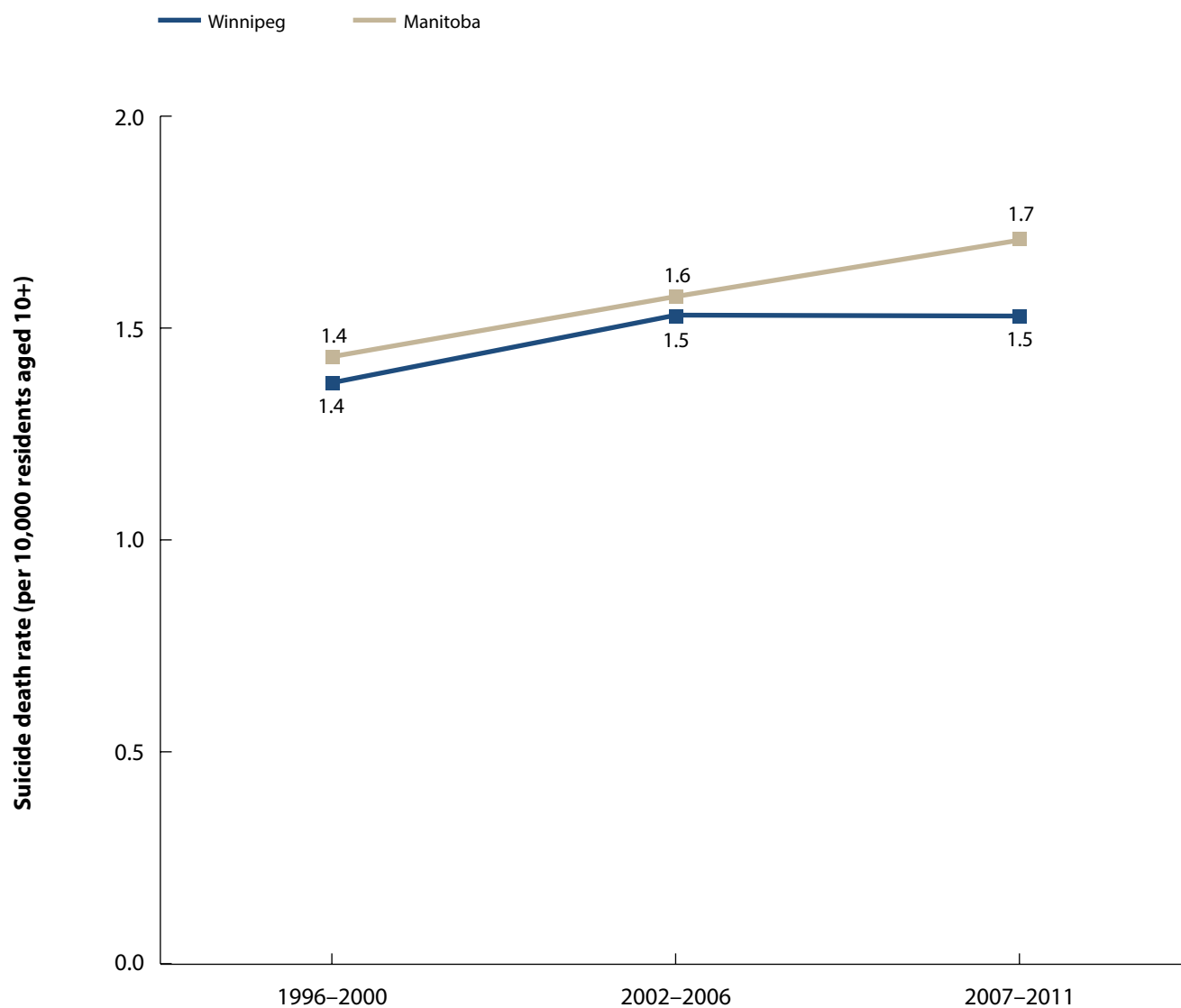
- Suicide is a leading cause of injury deaths in Manitoba.
- The suicide death rate in the Canadian general population was 1.15 cases per 10,000 residents in 2009¹. This rate may not be directly comparable with those numbers in the 2014 Community Health Assessment because of differences in defining death cases.
- In Canada, the suicide death rate is highest among persons aged 40-59 years.¹ Suicide death rate in youth (15-19 years old) has been decreasing since 1974.¹
- In Canada, the suicide death rate among males is 3 times higher than that among females.¹ However, females are 3-4 times likely to attempt suicide. In Canada, while the suicide death rate for males has slightly declined since 1999, the rate for females was stable.¹

¹ Navaneelan T. *Suicide rates: An overview*. Statistics Canada, Catalogue no. 82-624-X.

Figure A3.2.6.b1

Trends in Suicide Death Rates in Winnipeg & Manitoba

Age- & sex-adjusted annual rate (per 10,000 residents aged 10+), 1996–2011



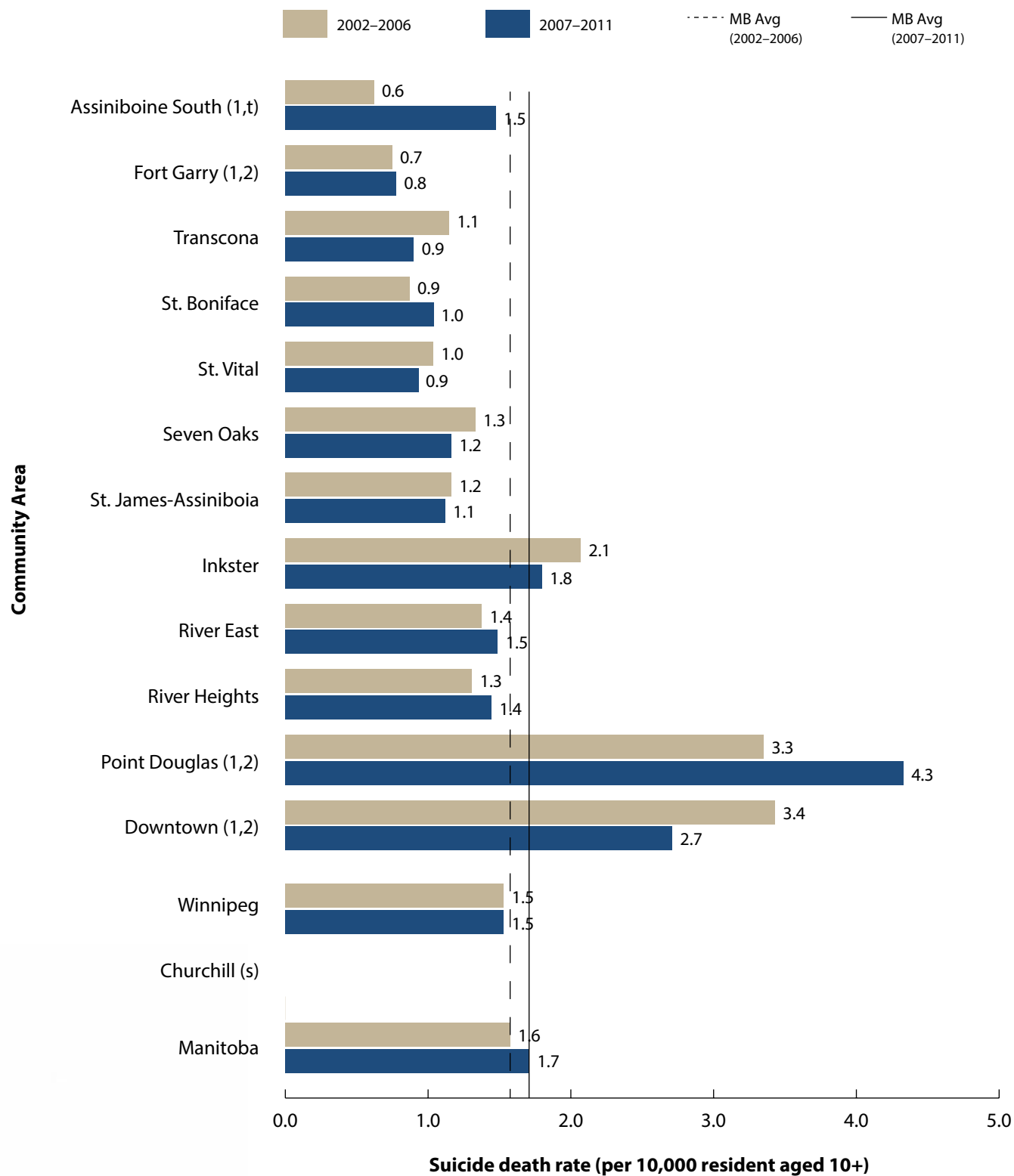
Sources: Manitoba Center for Health Policy, 2009 & 2013

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.2.6.b2

Suicide Death Rates by Winnipeg Community Area

Age- & sex-adjusted annual rate (per 10,000 residents aged 10+), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

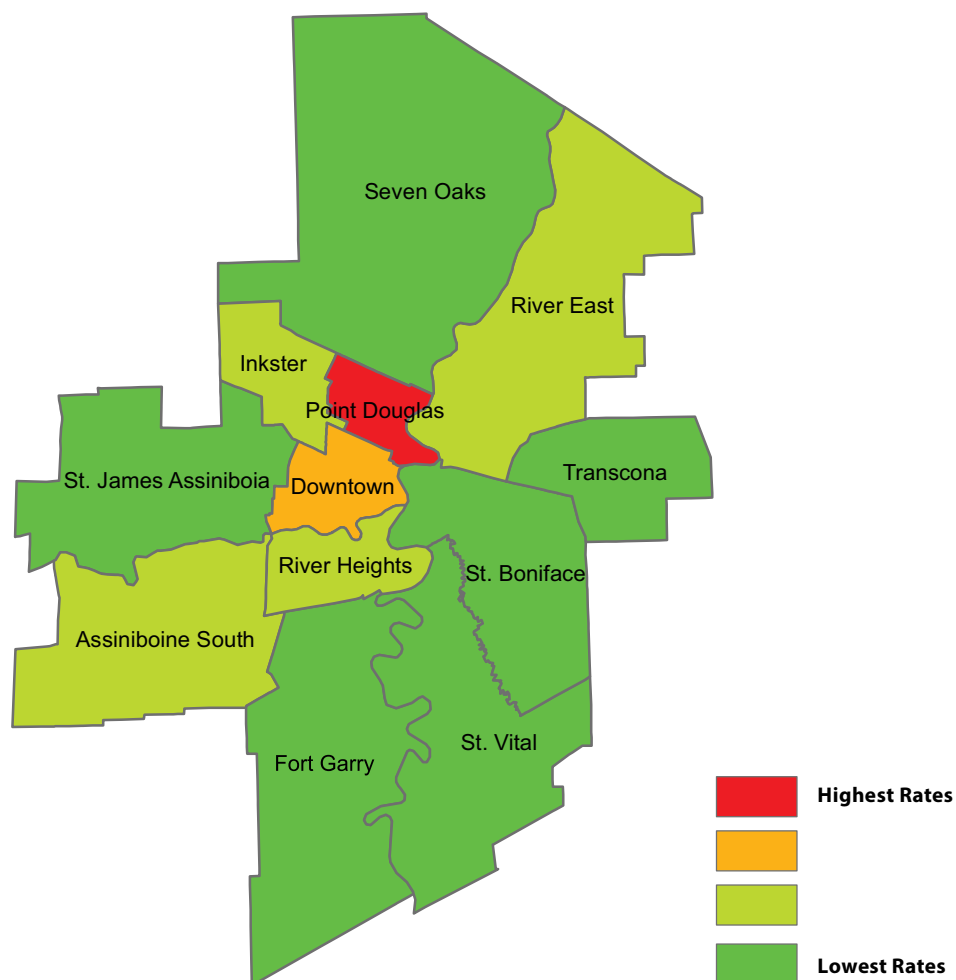
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Suicide Death Rates by Winnipeg Community Area

Age- & sex-adjusted annual rate (per 10,000 residents aged 10+), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.2.6.b1

Health Inequality in Suicide Deaths (suicides per 10,000 residents), by Urban Income Quintile

Health Inequality Measures	Time Period	
	2002–2006 # of deaths from suicide per 10,000 residents	2007–2011 # of deaths from suicide per 10,000 residents
Highest Urban Income Quintile (U5)	0.7 deaths	0.8 deaths
U4	0.7 deaths	0.9 deaths
U3	1.2 deaths	1.1 deaths
U2	1.4 deaths	1.5 deaths
Lowest Urban Income Quintile (U1)	3.4 deaths	3.4 deaths
Absolute difference (U1-U5)	2.7 deaths	2.6 deaths
Ratio (U1/U5)	4.86	4.25

Source: Manitoba Center for Health Policy, 2013



Indicator: Total Respiratory Diseases Prevalence

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents (all ages) with a respiratory disease in a one-year period as defined by either:

- at least one hospitalization for one of a variety of respiratory diseases (asthma, chronic or acute bronchitis, acute bronchiolitis, emphysema, or chronic airway obstruction), or
- at least one physician visit with a respiratory disease listed above.

NUMERATOR: All the Region's residents with a respiratory disease defined as above.

DENOMINATOR: All residents living in the Region.

CALCULATION: Prevalence was age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Total respiratory diseases (TRD) prevalence in the Region has declined overtime, from 13.1% in 2000/01 to 9.9% in 2011/12.
- Prevalence varied across the community areas (CAs) (the highest percent is found in Point Douglas [13.2%] and the lowest percent in Churchill [6.0%]) and neighborhood clusters (NCs) (the highest percent is found in Point Douglas South [15.0%] and the lowest percent in River East North [6.8%]).
- Low income was associated with high TRD prevalence: (a) TRD prevalence in the lowest income NC was 2.1 times higher than in the highest income NC in 2011/12; (b) the Region's residents in the lowest income quintile had the highest TRD prevalence.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

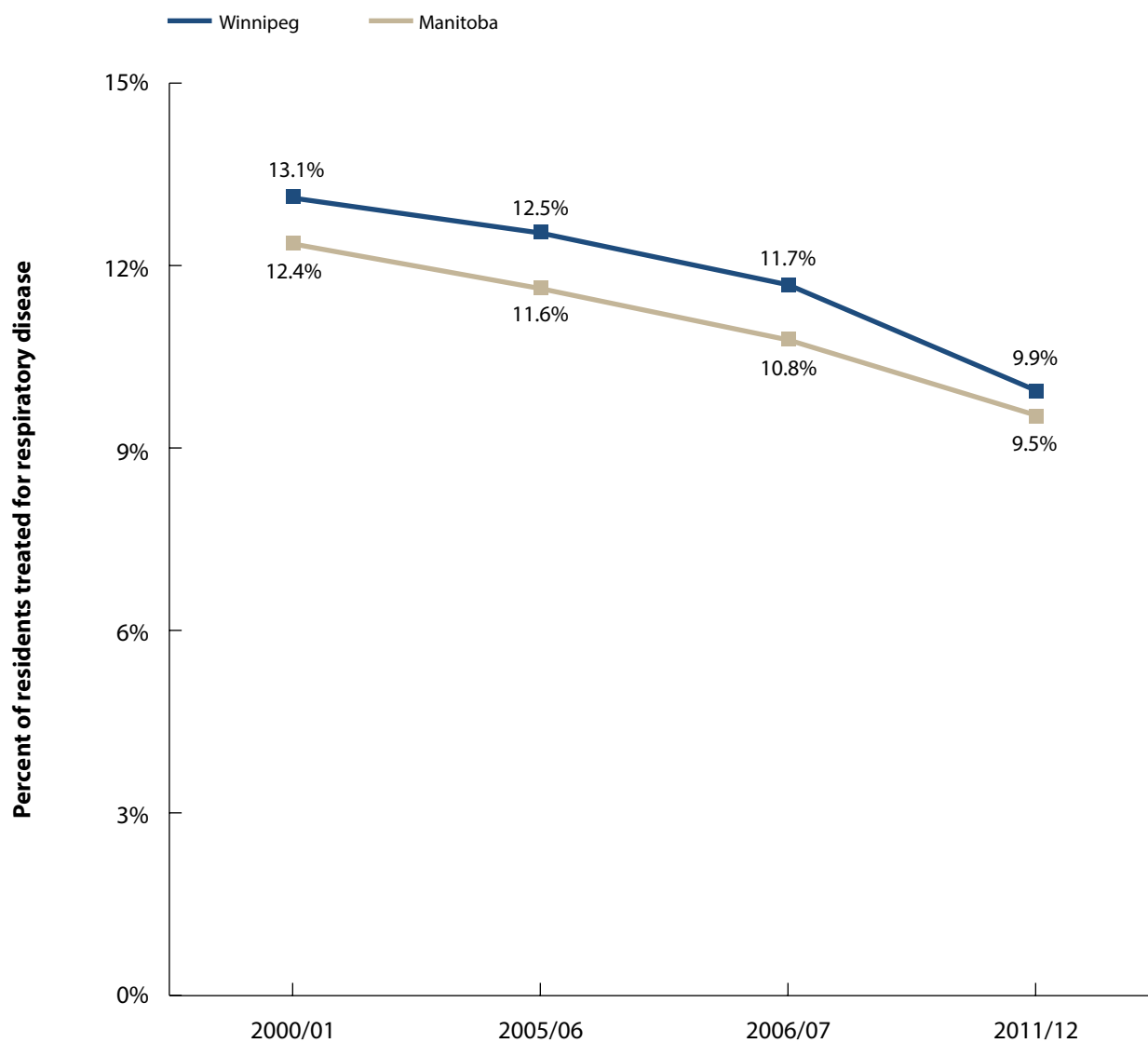
- Total respiratory morbidity (TRM) is NOT a measure of a specific respiratory disease but a sum of several diseases as defined above. This should be noted when comparing to other respiratory disease indicators.
- Smoking (including exposure to second-hand smoke) is the most important modifiable risk factor for chronic respiratory diseases and smoking cessation has been associated with reduced morbidity and mortality of chronic respiratory diseases.¹

¹ Public Health Agency of Canada. *Life and Breath: Respiratory Disease in Canada* (2007). Ottawa, 2007.

Figure A3.3.1.a1

Trends in Total Respiratory Diseases Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents (all ages) who received treatment for respiratory disease, 2000/01–2011/12

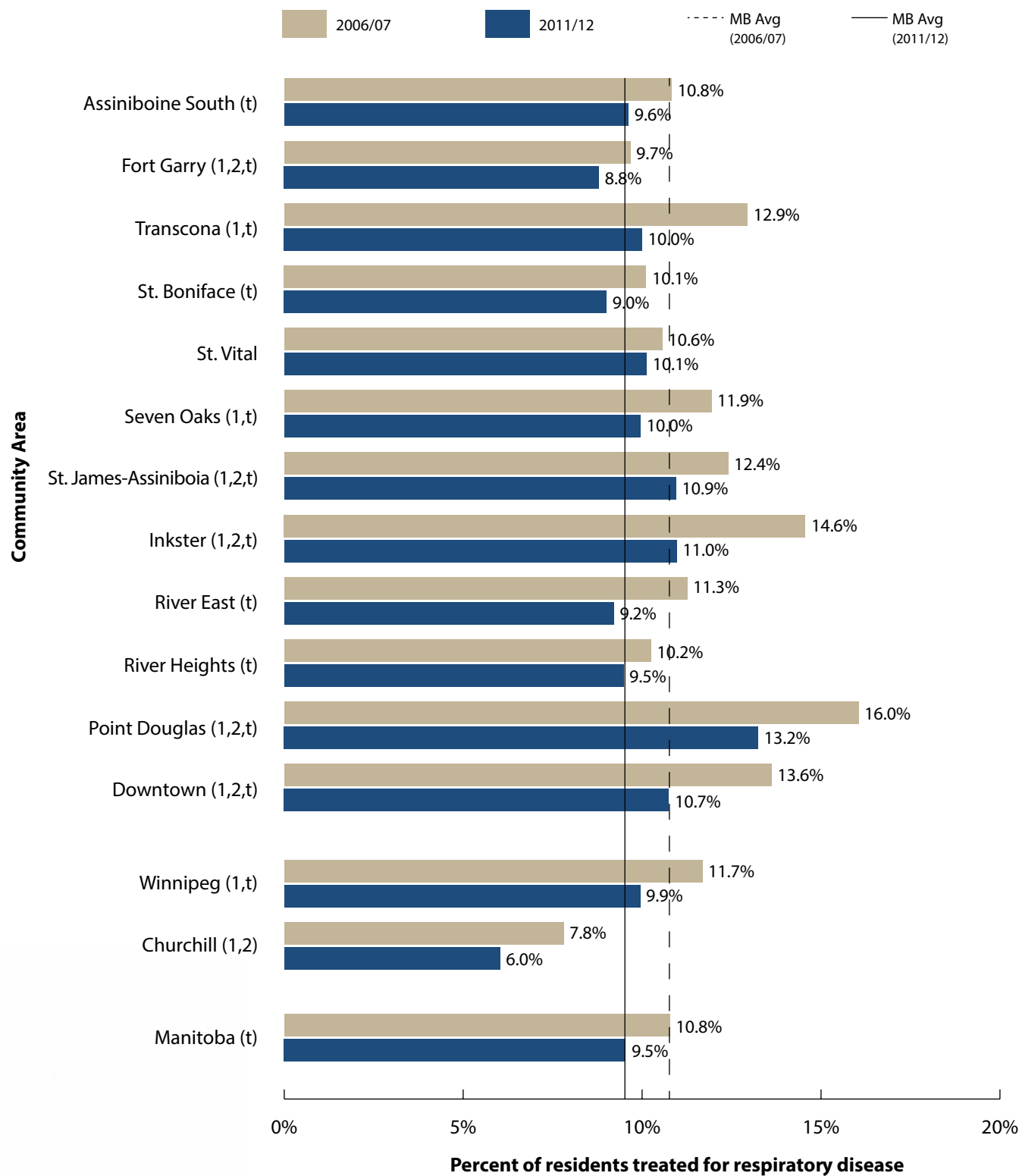


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.1.a2

Total Respiratory Diseases Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents (all ages) who received treatment for respiratory disease, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

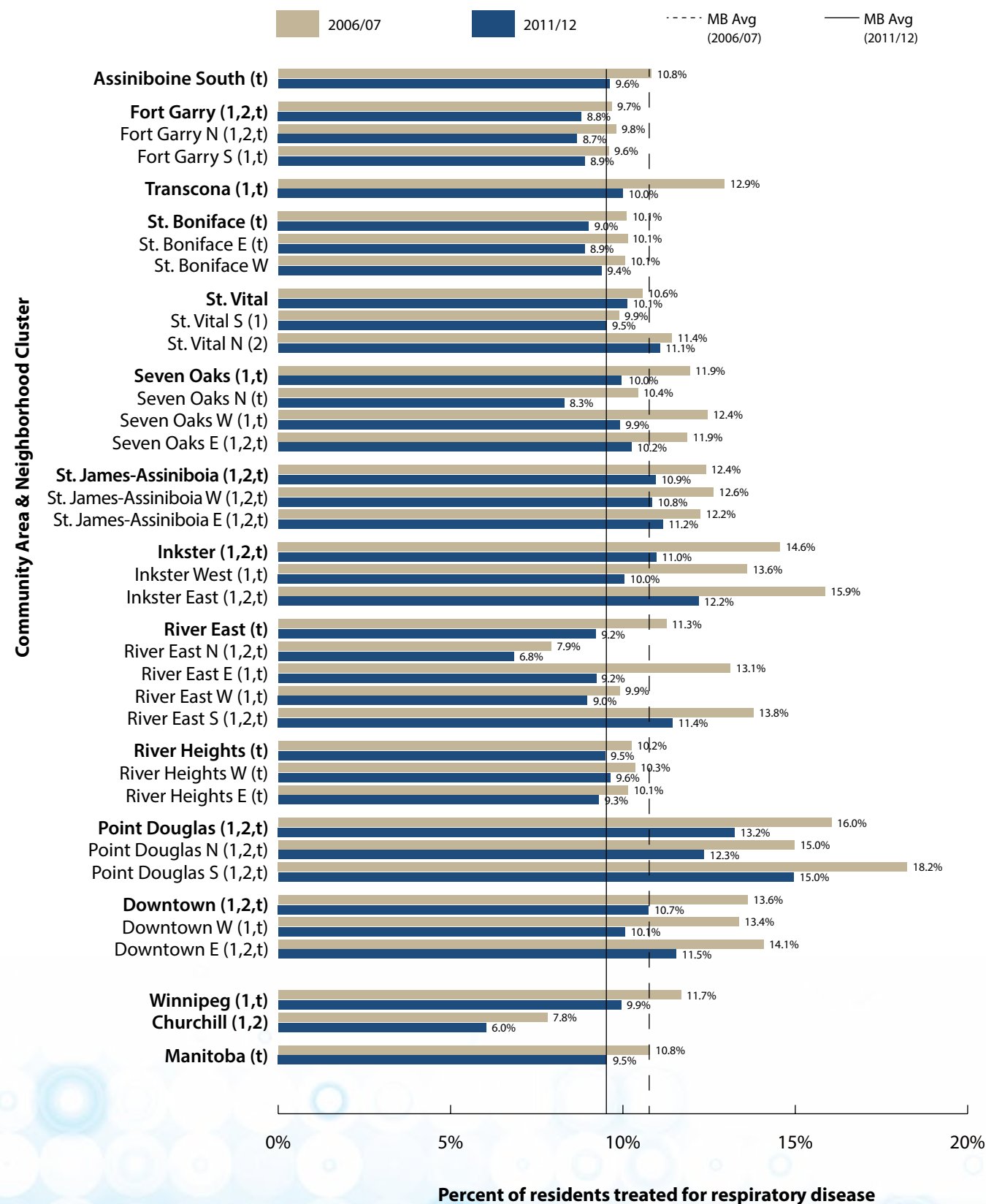
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.1.a3

Total Respiratory Diseases Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents (all ages) who received treatment for respiratory disease, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

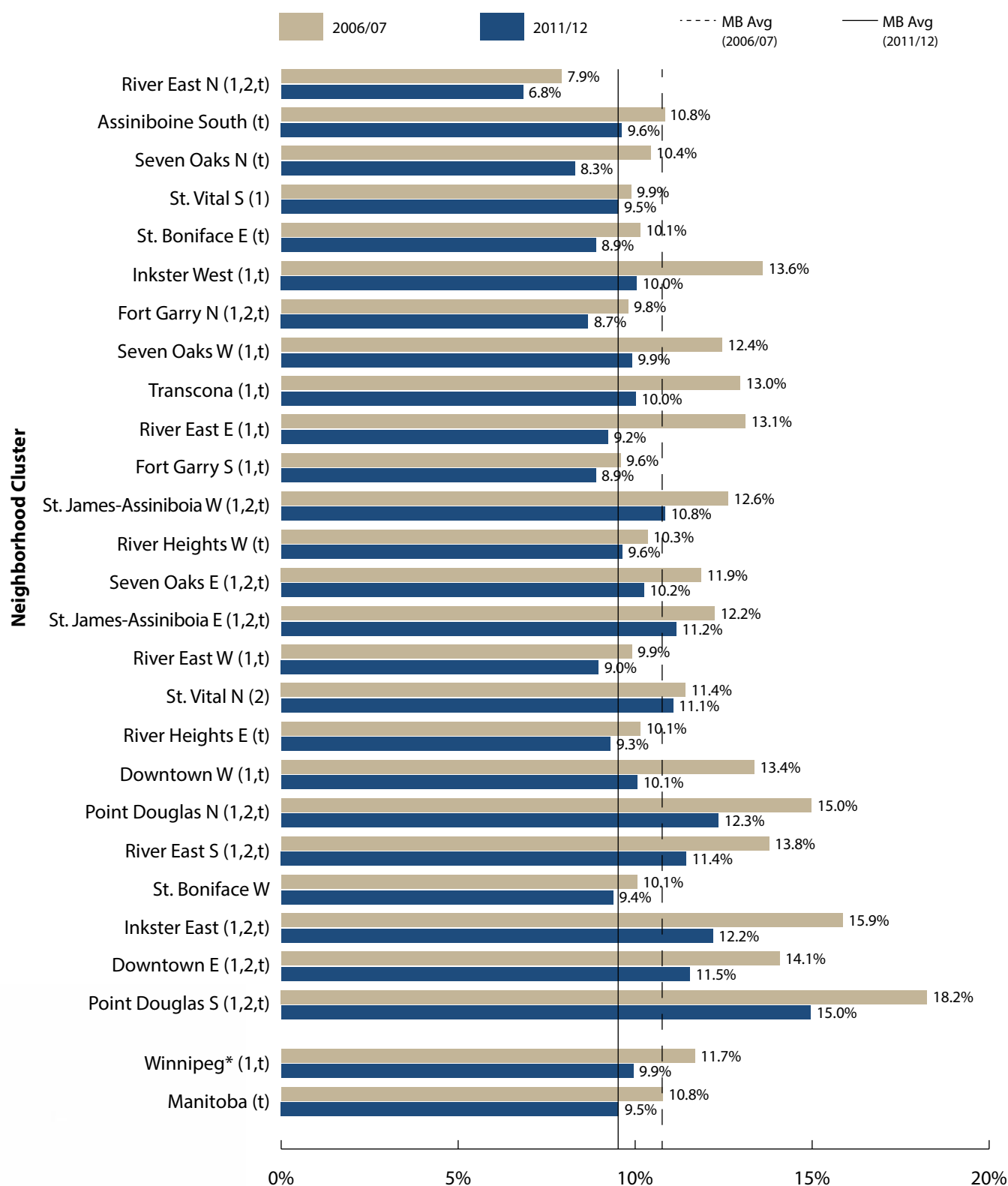
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.1.a4

Total Respiratory Diseases Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents (all ages) who received treatment for respiratory disease, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

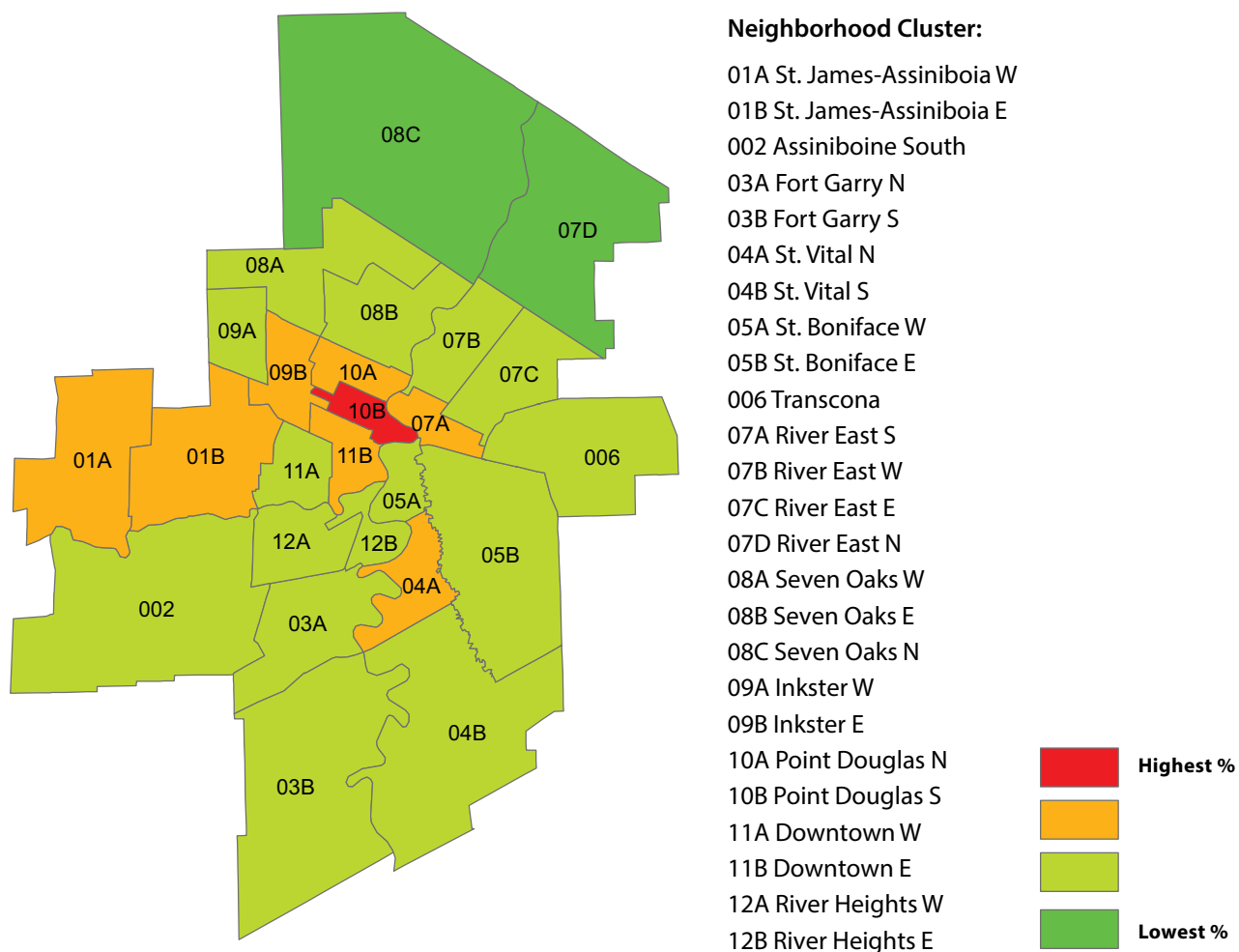
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Total Respiratory Disease Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents (all ages) who received treatment for respiratory disease, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.1.a1

Health Inequality in Total Respiratory Diseases (TRD) Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 % with TRD	2011/12 % with TRD
TRD Prevalence by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	7.9%	7.0%
Lowest income NC (Point Douglas S)	18.2%	15.0%
Absolute difference (Lowest income NC – Highest income NC)	10.3%	8.0%
Ratio (Lowest income NC / Highest income NC)	2.3	2.14
TRD Prevalence by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	9.5%	8.6%
U4	10.8%	9.5%
U3	11.5%	10.4%
U2	12.7%	11.1%
Lowest Urban Income Quintile (U1)	14.2%	12.3%
Absolute difference (U1-U5)	4.7%	3.7%
Ratio (U1/U5)	1.49	1.43

Source: Manitoba Centre for Health Policy, 2013

Indicator: Hypertension Incidence

DEFINITION: Incidence is expressed as the number of new cases of hypertension (high blood pressure) found during a specific period of time (e.g., over 1-year, 2-year or 5-year spans) divided by the amount of time contributed by persons at risk of developing hypertension (i.e., no previous claims for hypertension). Specifically, it is the average number of new cases of hypertension in Winnipeg Regional Health Authority (the Region) residents aged 19 and older per 100 person-years at risk as defined by either:

- at least one hospitalization with an indicator of hypertensive disease, or
- at least one physician visit with an indicator of hypertensive disease, or
- at least two prescriptions for a hypertension medication.

NUMERATOR: The number of the Region's residents aged 19 years and older newly diagnosed (as defined above) for hypertension.

DENOMINATOR: The number of the Region's residents aged 19 years and older and at risk of developing high blood pressure (hypertension) during a specific year period.

CALCULATION: Incidence of new cases per 100 person-years (at risk) was age- and sex-adjusted to the Manitoba population aged 19 and older in the first time period (i.e., 2006/2007 Manitoba population as the standard population for 2006/07 and 2011/12).

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- Hypertension incidence decreased slightly in the Region from 3.3 cases per 100 person-years in 2006/07 to 3.0 cases per 100 person-years in 2011/12.
- Hypertension incidence rate varied across the Region, with the highest rate in Point Douglas South (3.8 cases per 100 person-years in 2011/12) and the lowest in River Heights West (2.4 cases per 100 person-years in 2011/12).
- There was modest income-related inequality in hypertension incidence. The incidence rate for the lowest income neighborhood cluster (NC) was 39% higher than that for the highest income NC in 2011/12; and the incidence rate for the lowest urban income quintile was 27% higher than that for the highest urban income quintile during 2007/08-2011/12.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

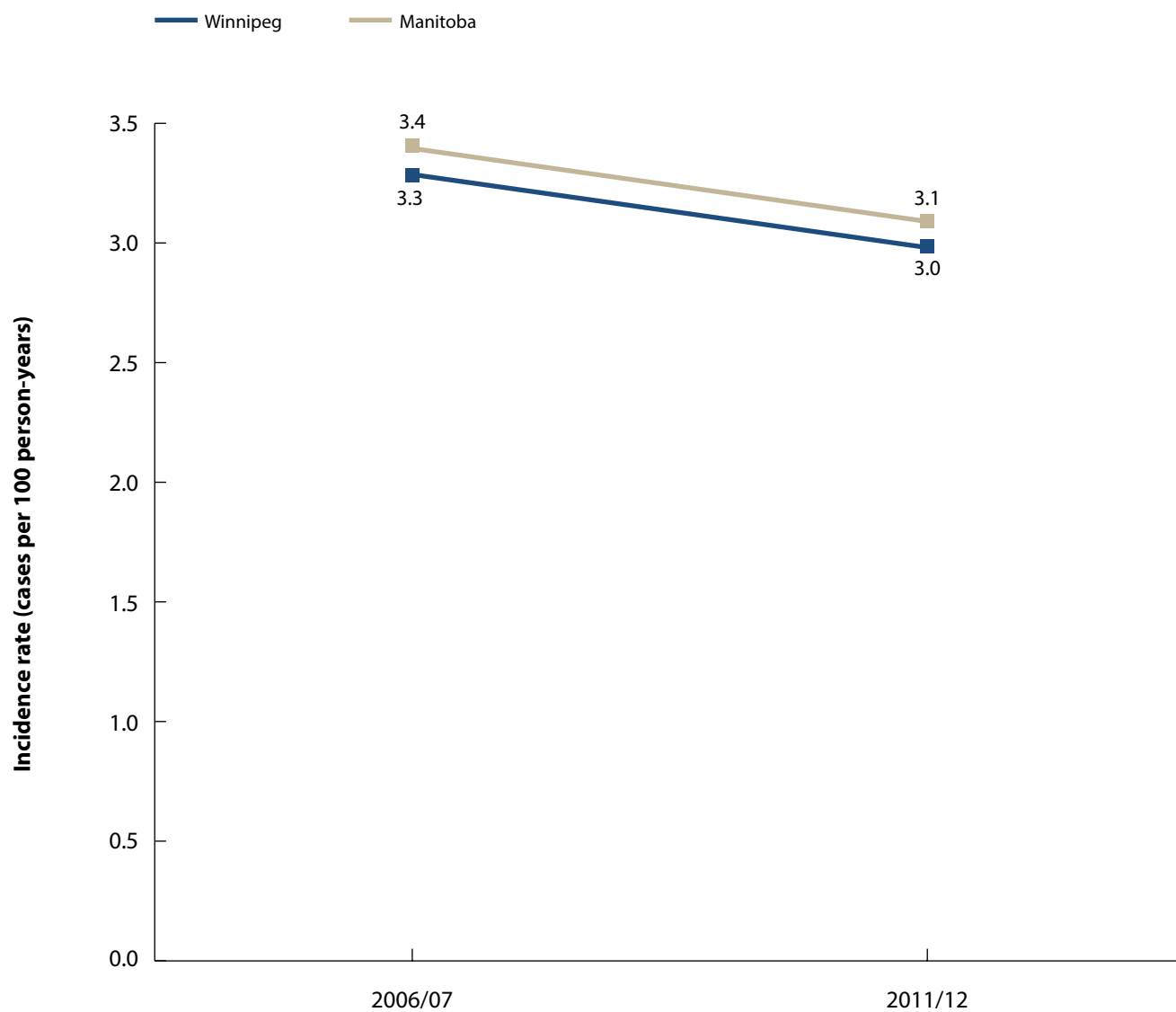
- In Canada, hypertension incidence remained relatively stable from 1998/99 to 2006/07.¹
- Hypertension is a chronic disease that can increase the risk of other chronic diseases including ischemic heart disease, heart attack, stroke, dementia, and chronic kidney diseases.
- Hypertension and diabetes often co-exist and share common cardiovascular risk factors including smoking, physical inactivity, unhealthy diet, and harmful alcohol drinking.
- Adopting healthy lifestyles is the key to prevent hypertension.

¹ Public Health Agency of Canada. Report from the Canadian Chronic Disease Surveillance System: Hypertension in Canada, 2010.

Figure A3.3.2.a1

Trends in Hypertension Incidence Rates in Winnipeg & Manitoba

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2006/07–2011/12

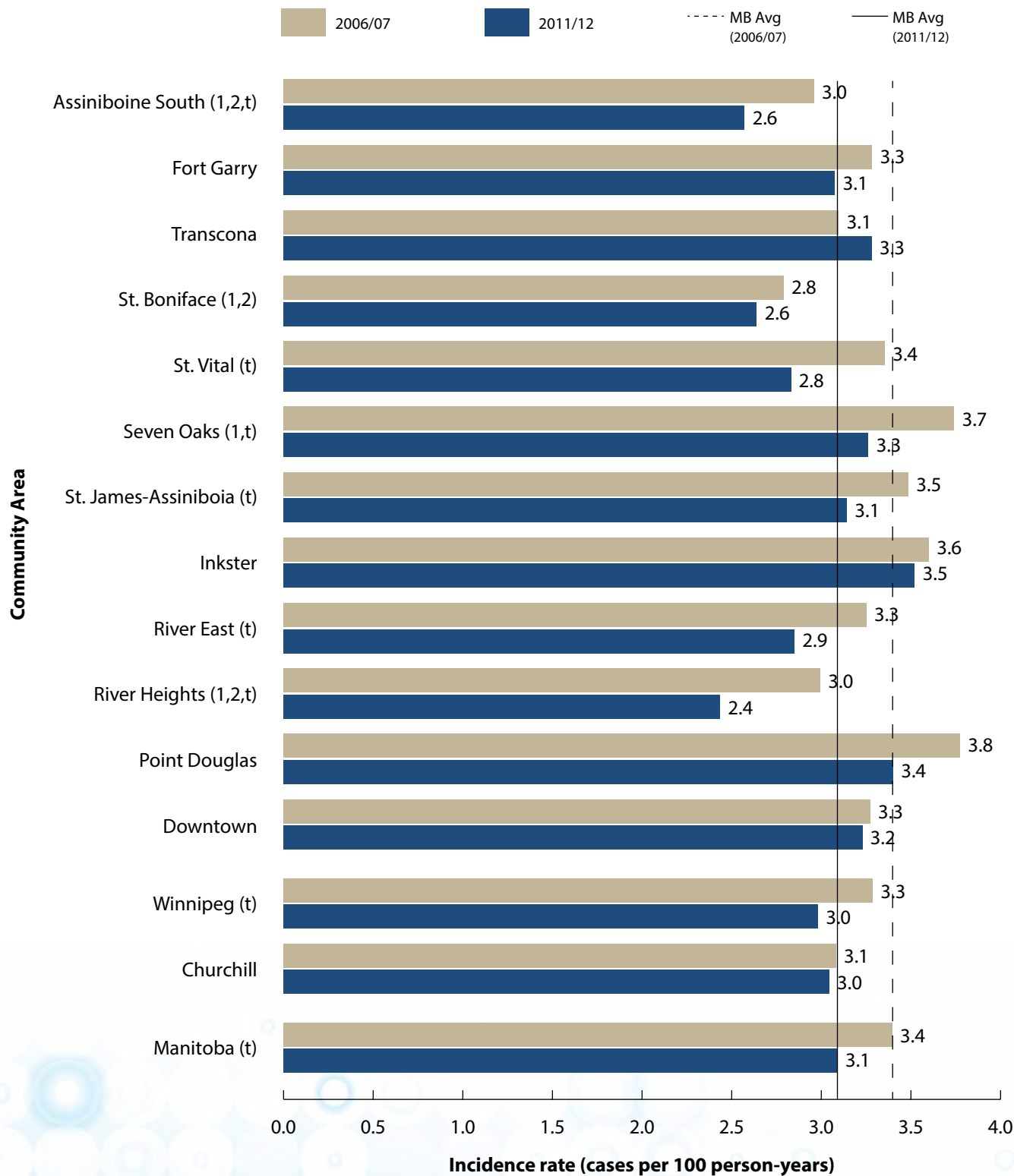


Source: Manitoba Centre for Health Policy, 2013

Figure A3.3.2.a2

Hypertension Incidence Rates by Winnipeg Community Area

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

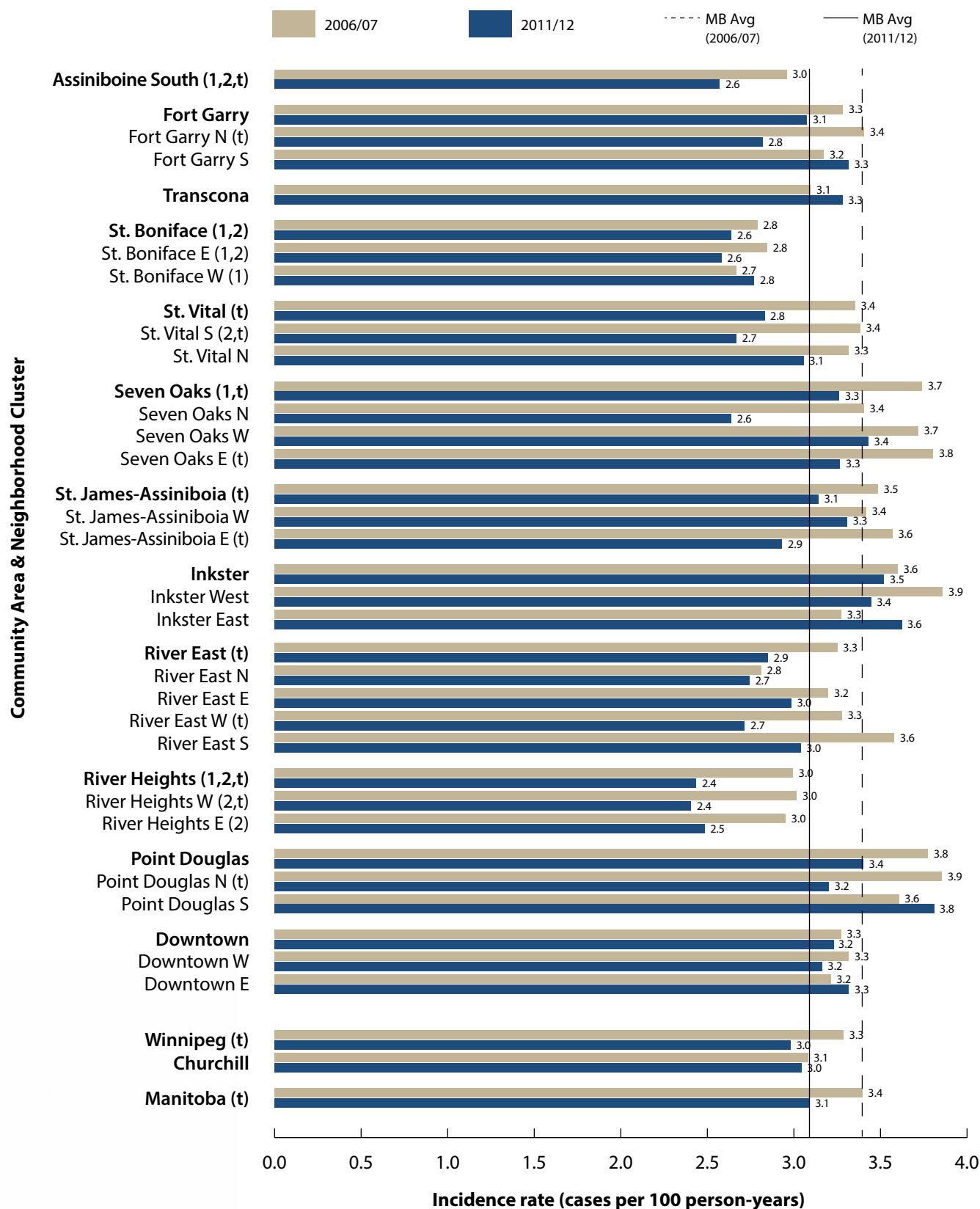
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.2.a3

Hypertension Incidence Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

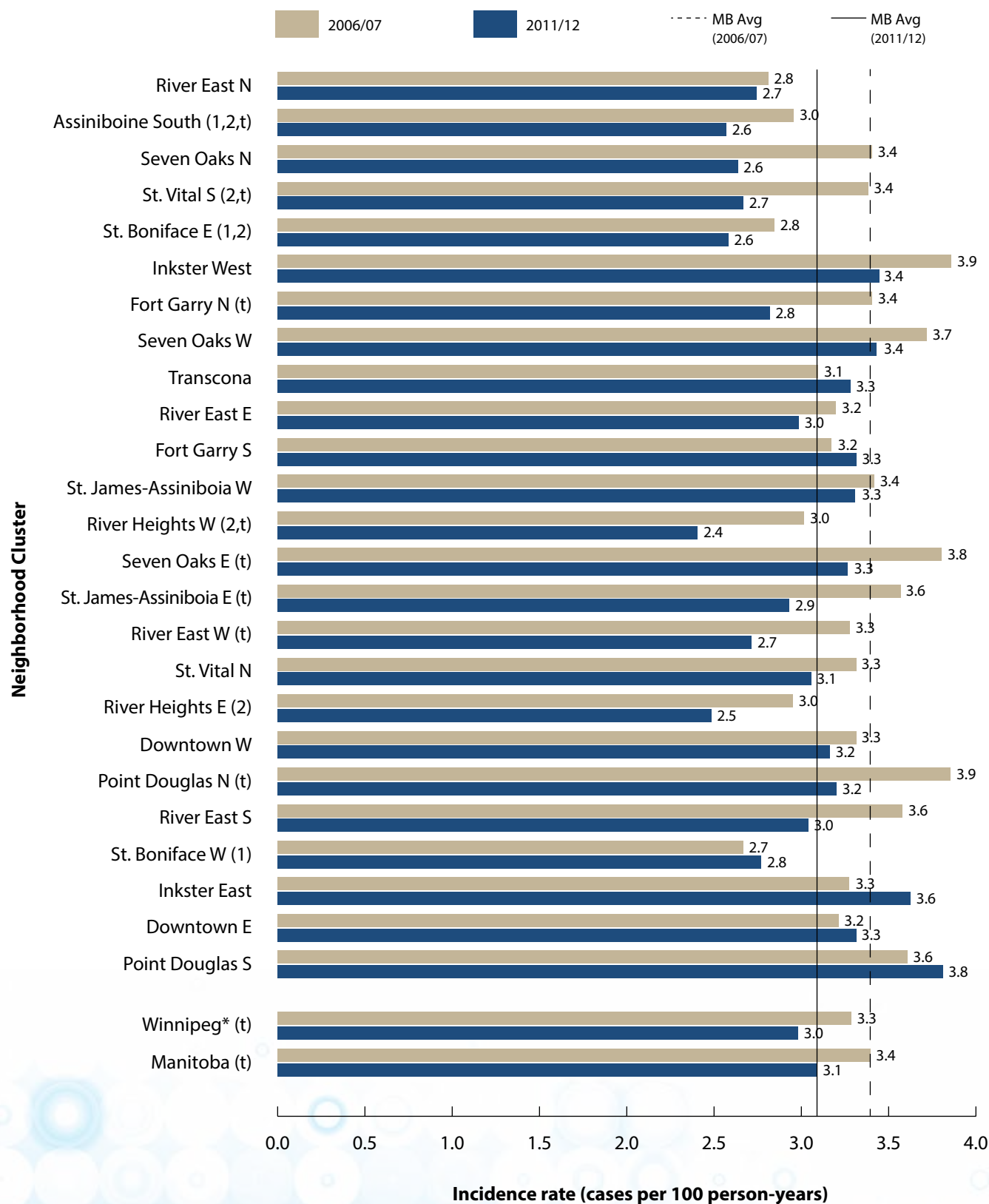
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.2.a4

Hypertension Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

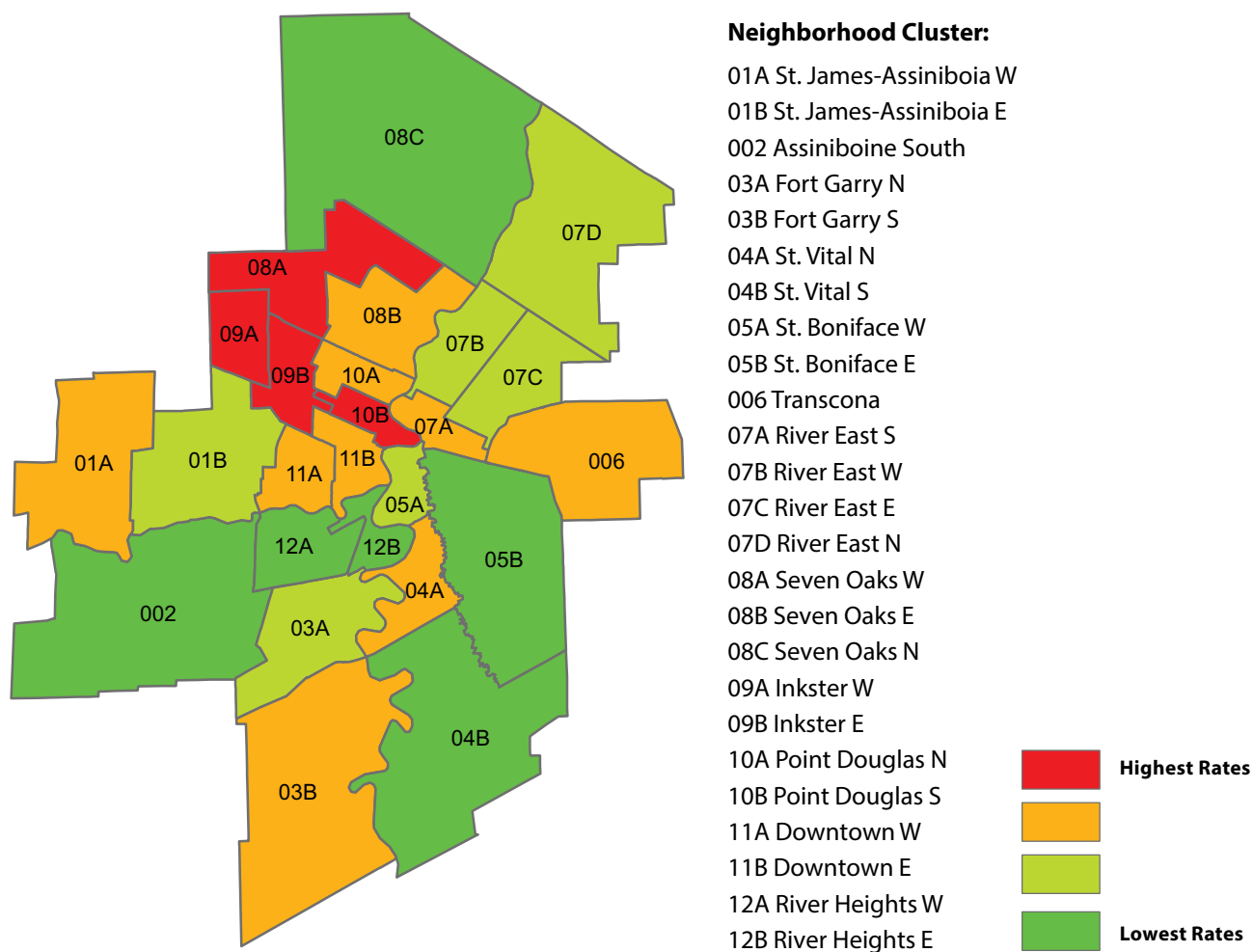
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Hypertension Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.2.a1

Health Inequality in Hypertension Incidence (cases per 100 person-years at risk), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 (new) cases per 100 person-years at risk	2011/12 (new) cases per 100 person-years at risk
Hypertension Incidence (new cases) by <i>Neighborhood Cluster (NC)</i> <i>median household income</i>		
Highest income NC (River East N)	2.81 cases	2.74 cases
Lowest income NC (Point Douglas S)	3.61 cases	3.81 cases
Absolute difference (Lowest income NC – Highest income NC)	0.80 cases	1.07 cases
Ratio (Lowest income NC / Highest income NC)	1.28	1.39
Hypertension Incidence (new cases) by <i>Urban Income Quintile</i>		
	2006/07 (new) cases per 100 person-years at risk	2011/12 (new) cases per 100 person-years at risk
Highest Urban Income Quintile (U5)	2.88 cases	2.55 cases
U4	3.31 cases	2.97 cases
U3	3.37 cases	3.01 cases
U2	3.37 cases	3.15 cases
Lowest Urban Income Quintile (U1)	3.58 cases	3.29 cases
Absolute difference (U1-U5)	0.70 cases	0.74 cases
Ratio (U1/U5)	1.24	1.29

Source: Manitoba Centre for Health Policy (MCHP), 2013



Indicator: Hypertension Prevalence

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents aged 19 years and older with hypertension (high blood pressure) in a one-year period as defined by either:

- at least one hospitalization or one physician visit with a hypertensive disease, or
- at least two prescriptions for hypertension medication.

NUMERATOR: The number of the Region's residents aged 19 years and older treated (as defined above) for a hypertensive disease.

DENOMINATOR: The number of the Region's residents aged 19 years and older.

CALCULATION: Prevalence was age- and sex-adjusted to the Manitoba population aged 19 and older in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Hypertension prevalence in the Region increased from 20% in 2000/01 to 25% in 2011/12.
- Hypertension prevalence varied across the Region: Churchill had the highest hypertension prevalence (33% in 2006/07 and 31% in 2011/12); communities and neighborhoods in the northwest areas of the Region tended to have the highest prevalence; overall, southern areas of the Region tended to have lower hypertension prevalence.
- Hypertension prevalence in the lowest income neighborhood cluster (NC) – Point Douglas South – was 1.33 times higher than that in the highest income NC (River East N) in 2011/12. Residents in the lowest income quintile were more likely to be treated for a hypertensive disease.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

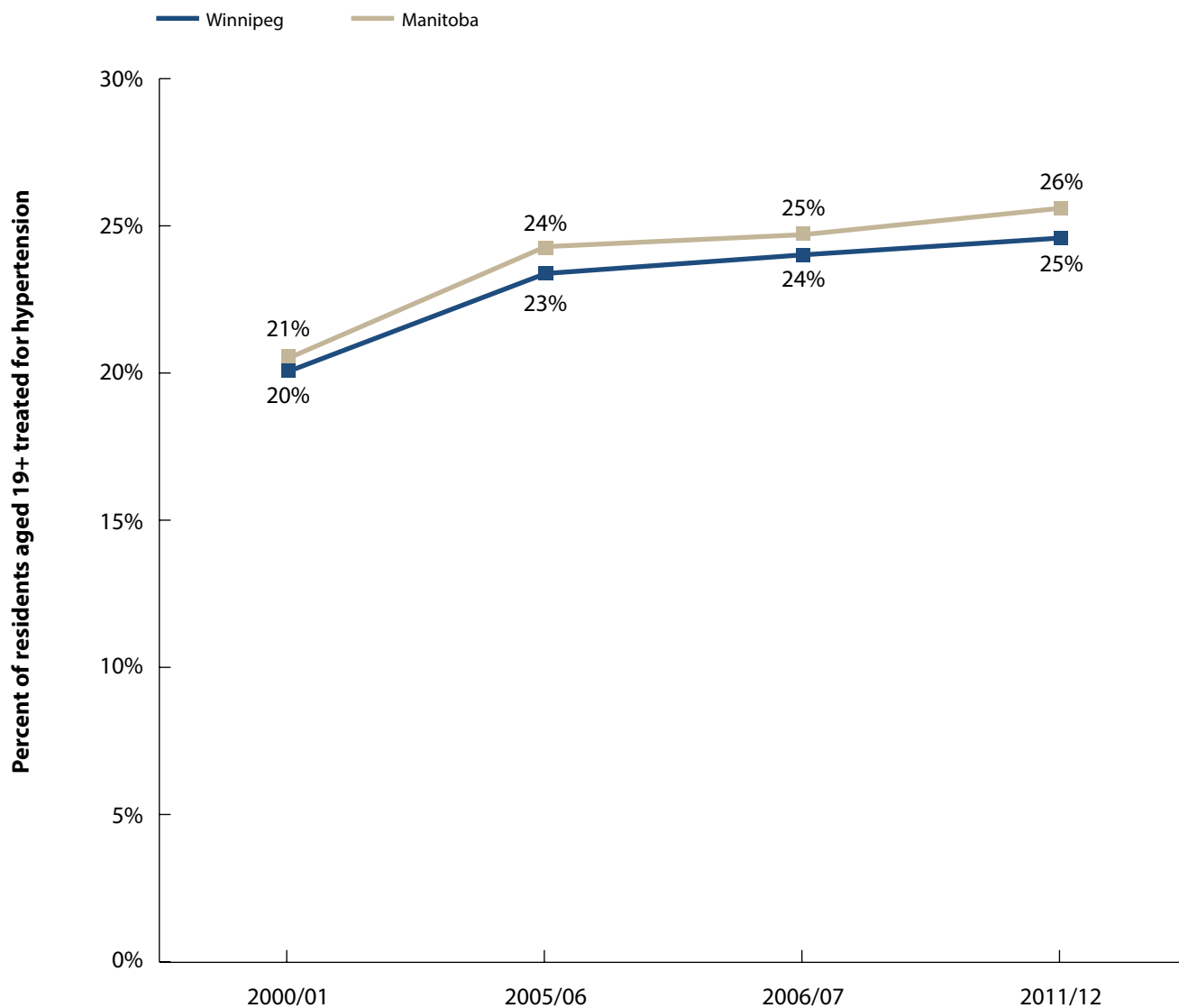
- The increase in hypertension prevalence maybe attributable to the longer survival of hypertension patients.
- Over 90% of Canadians with hypertension have additional cardiovascular risk factors, including an unhealthy diet, high dietary sodium intake, tobacco use, physical inactivity, abdominal obesity, and dyslipidemia; identifying and managing these risk factors is important.¹
- Home blood pressure monitoring is an important tool in self-monitoring and self-management. Target blood pressure should be less than 140/90 mmHg for most patients including in those persons with chronic kidney diseases and less than 130/80 mmHg those with diabetes mellitus. Evidence suggests that a combination of lifestyle changes and antihypertensive drug therapies is usually necessary to achieve recommended target blood pressures in patients with hypertension.¹

¹ Hypertension Canada. *The Canadian Hypertension Education Program (CHEP) 2014 Recommendations*.

Figure A3.3.2.b1

Trends in Hypertension Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 19+ who received treatment for hypertension, 2000/01–2011/12

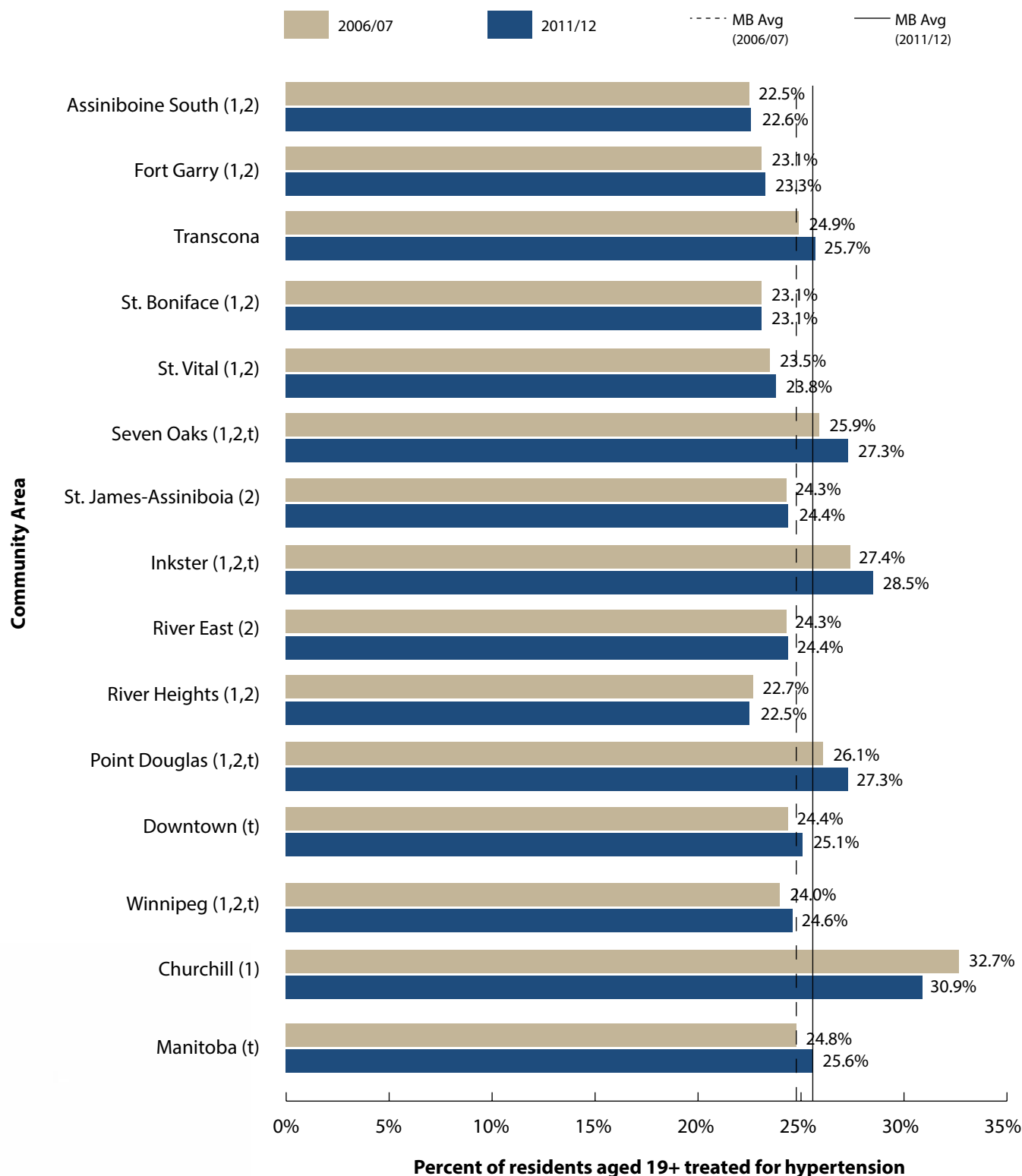


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.2.b2

Hypertension Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 19+ who received treatment for hypertension, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

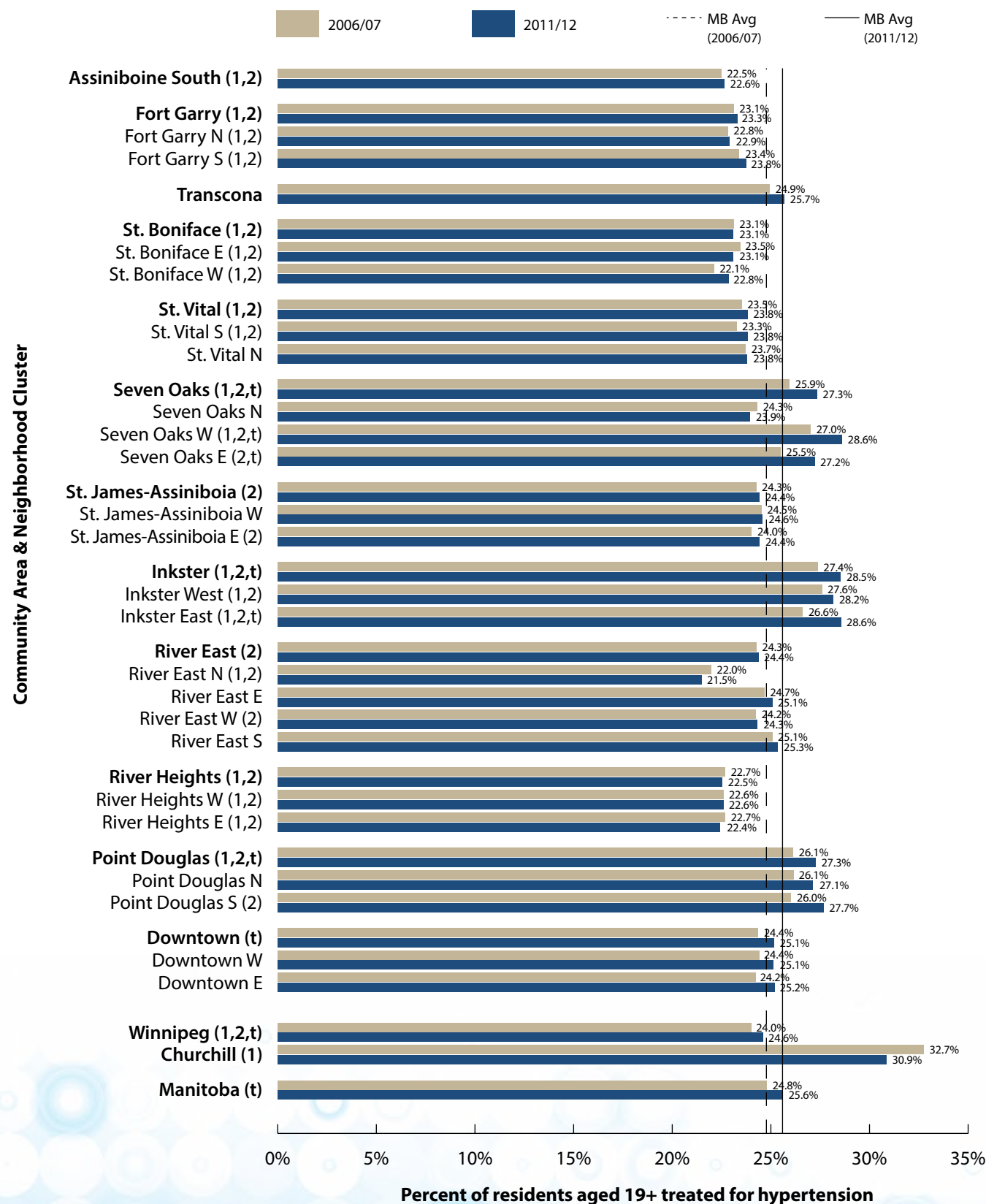
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.2.b3

Hypertension Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for hypertension, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

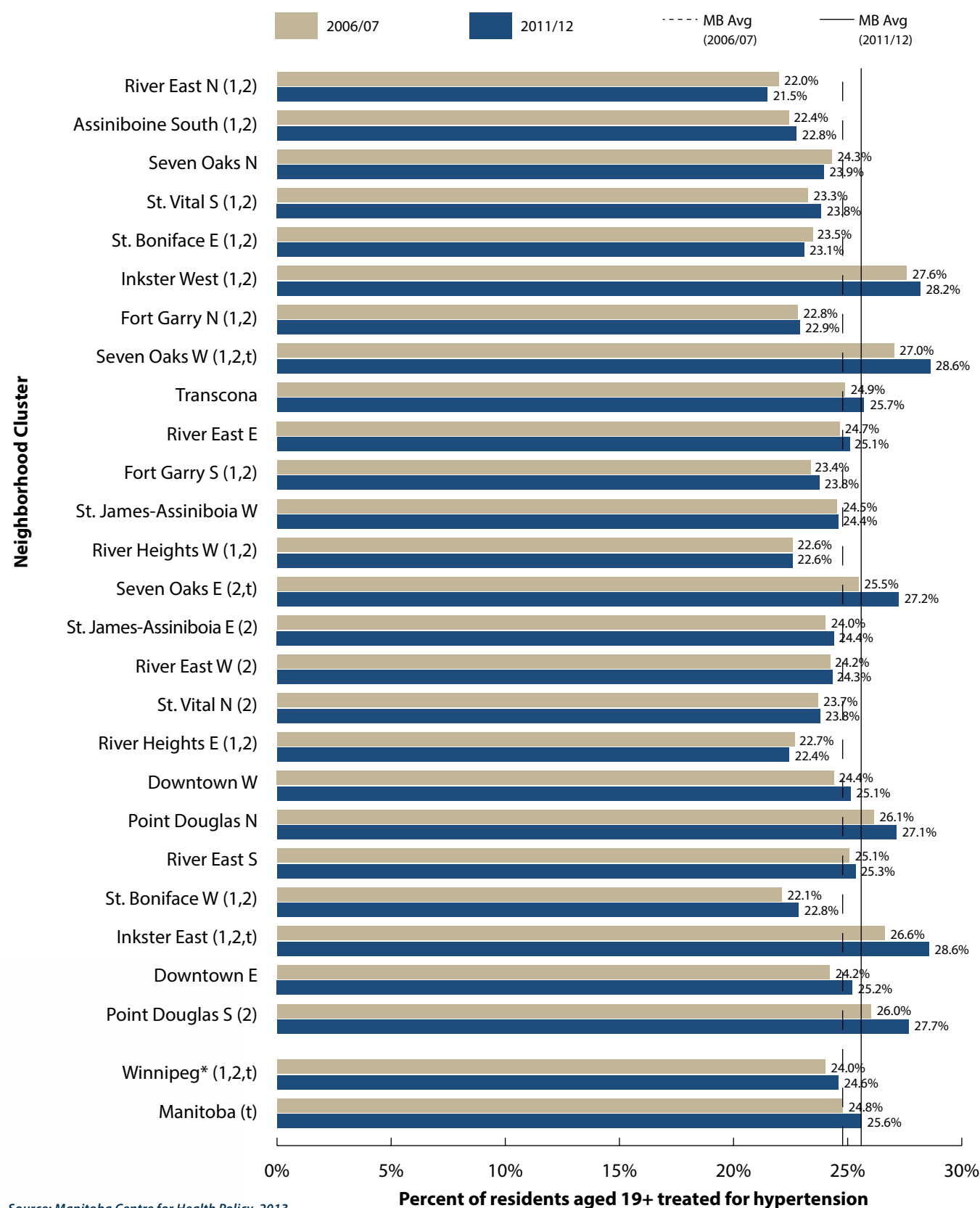
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.2.b4

Hypertension Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for hypertension, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

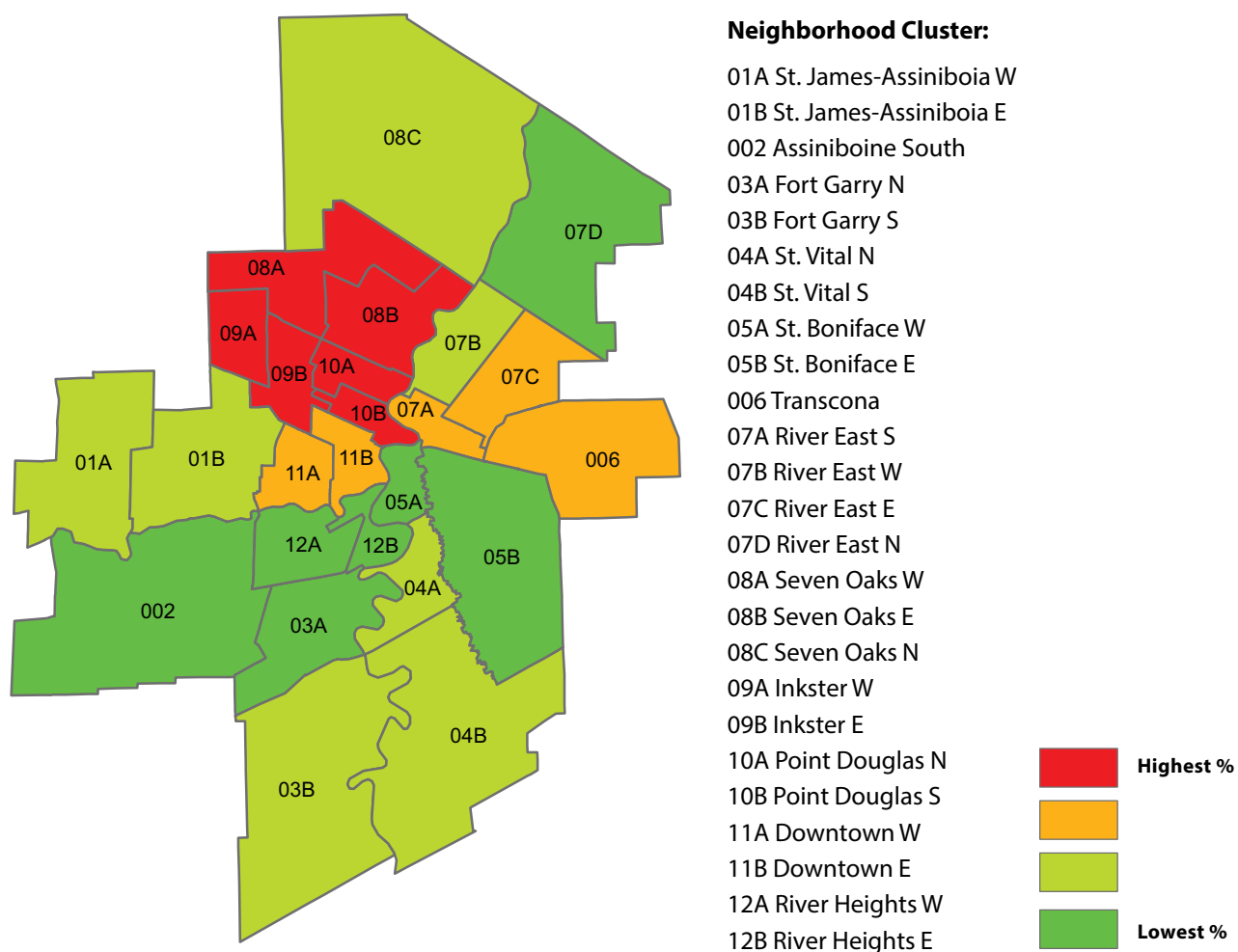
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Hypertension Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for hypertension, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.2.b1

Health Inequality in Hypertension Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 % with diagnosed hypertension	2011/12 % with diagnosed hypertension
Hypertension prevalence by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	22%	21%
Lowest income NC (Point Douglas S)	26%	28%
Absolute difference (Lowest income NC – Highest income NC)	4%	7%
Ratio (Lowest income NC / Highest income NC)	1.18	1.33
Hypertension prevalence by <i>Urban Income Quintile</i>		
	2006/07 % with diagnosed hypertension	2011/12 % with diagnosed hypertension
Highest Urban Income Quintile (U5)	22%	22%
U4	24%	24%
U3	25%	25%
U2	25%	26%
Lowest Urban Income Quintile (U1)	25%	26%
Absolute difference (U1-U5)	3%	4%
Ratio (U1/U5)	1.14	1.18

Source: Manitoba Center for Health Policy, 2013

Indicator: Diabetes Incidence

DEFINITION: Incidence is expressed as the number of new cases of diabetes found during a specific period of time (e.g., over 1-year, 2-year or 5-year span) divided by the amount of time contributed by persons at risk of developing diabetes. Specifically, it is the average number of new cases of diabetes (Type 1 and 2 combined) in Winnipeg Regional Health Authority (the Region) residents aged 19 years and older per 100 person-years at risk as defined by either:

- at least one hospitalization with a diagnosis of diabetes, or
- at least two physician visits with a diagnosis of diabetes, or
- at least one prescription for diabetes medication, with no previous claims for diabetes.

NUMERATOR: Number of newly diagnosed diabetes cases (persons aged 19 years and older) in a specific time period (2004/05-2006/07 or 2009/10-2011/12).

DENOMINATOR: The number of the Region's residents aged 19 years and older at risk of developing diabetes (that is, residents with no previous claims for diabetes) in a specific time period (2004/05-2006/07 or 2009/10-2011/12).

CALCULATION: Incidence was calculated for 2004/05–2006/07 and 2009/10–2011/12 and was age- and sex-adjusted to the Manitoba population aged 19 years and older in the first time period (i.e., 2004/05–2006/07 Manitoba population as the standard population for 2004/05–2006/07 and 2009/10–2011/12).

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- Diabetes incidence in the Region was lower than the Manitoba average.
- Diabetes incidence in the Region has been relatively stable although slightly declining from 0.86 cases per 100 person-years in 2004/05-2006/07 to 0.80 cases per 100 person-years in 2009/10-2011/12. The significant change in Churchill (from 2.36 to 0.78) may be due to year-to-year variation given its small population numbers.
- Diabetes incidence rates vary across the Region. There was a nearly 3-fold difference in diabetes incidence across neighborhood clusters (NC), with the highest incidence (1.50 cases per 100 person-years) in Point Douglas South and the lowest incidence in River East North (0.53 cases per 100 person-years).
- There was a trend for a higher diabetes incidence rate among lower income communities: In 2009/10-2011/12, diabetes incidence rate in the lowest income NC was 2.83 times higher than that in the highest income NC; and the diabetes incidence rate in those persons in the lowest income quintile was 1.95 times higher than those in the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Actual diabetes incidence may be higher because about 20% of persons with diabetes may remain undiagnosed.¹
- In Canada, diabetes incidence increased by 9% between 2002/03 and 2006/07.² Manitoba was one of several provinces with a higher than the national average incidence rate (0.52% for both genders) between 2002/03 and 2006/07.
- Aging, lower socioeconomic status, physical inactivity, unhealthy eating, obesity, smoking and a family history of diabetes are important risk factors for type 2 diabetes.
- Diabetes prevention requires a comprehensive strategy including physical activity, healthy diet and smoking cessation.

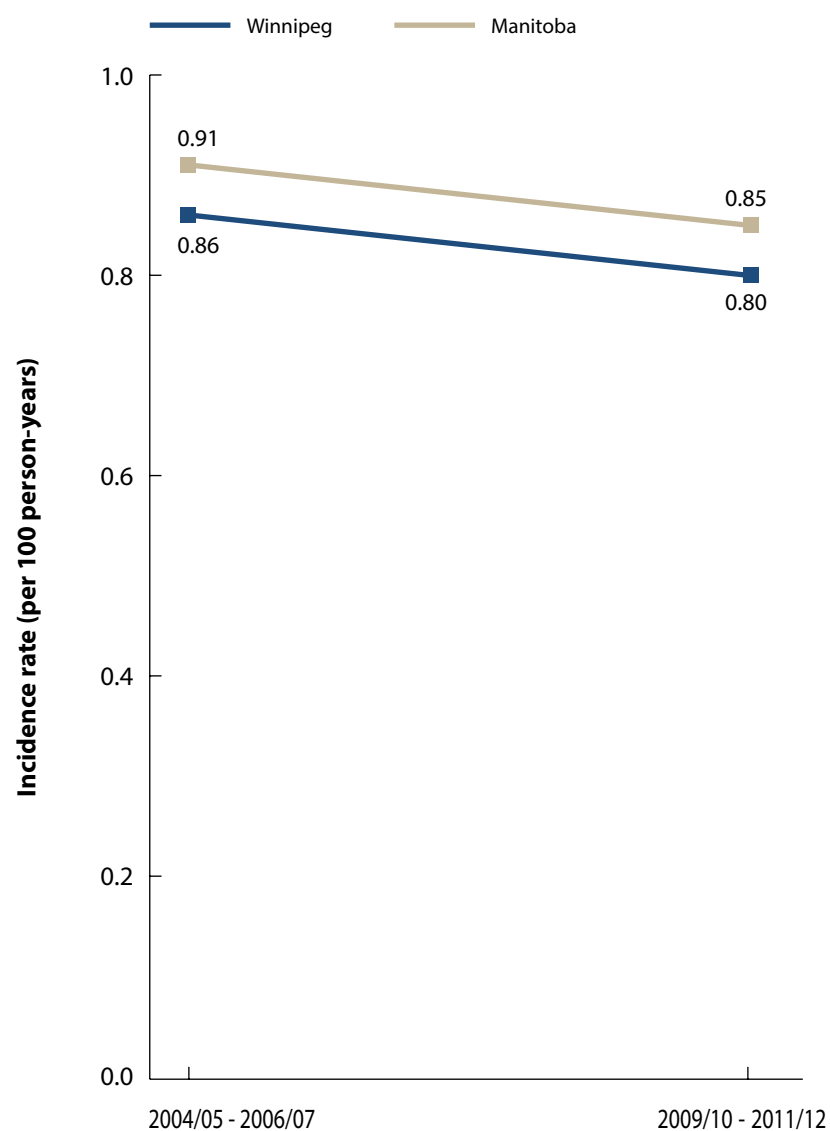
1 Public Health Agency of Canada. *Diabetes in Canada: Facts and figures from a public health perspective*. Ottawa, 2011.

2 Public Health Agency of Canada. *Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009*. Ottawa, 2009.

Figure A3.3.3.a1

Trends in Diabetes Incidence Rates in Winnipeg & Manitoba

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2004/05–2011/12

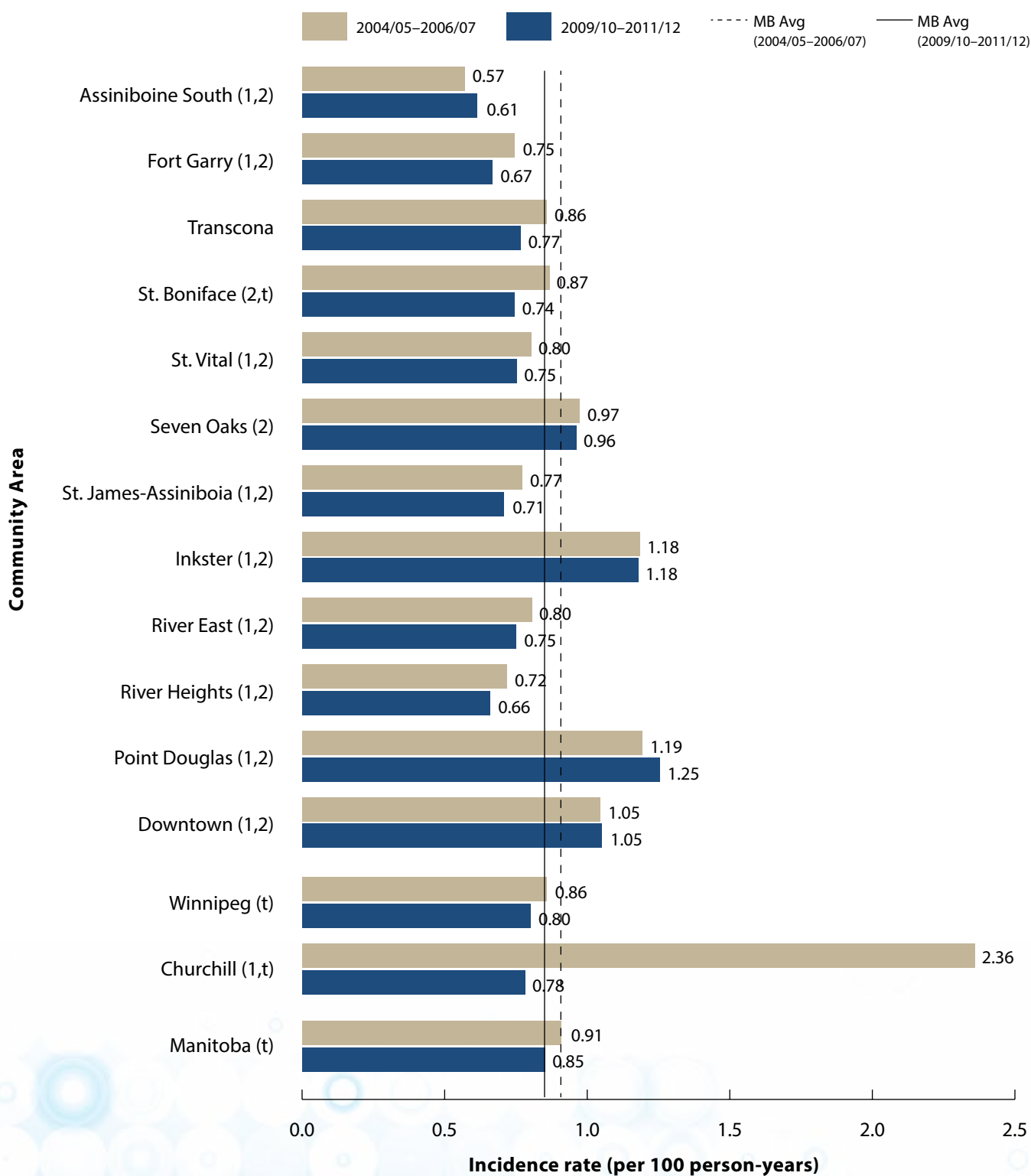


Source: Manitoba Centre for Health Policy, 2013

Figure A3.3.3.a2

Diabetes Incidence Rates by Winnipeg Community Area

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

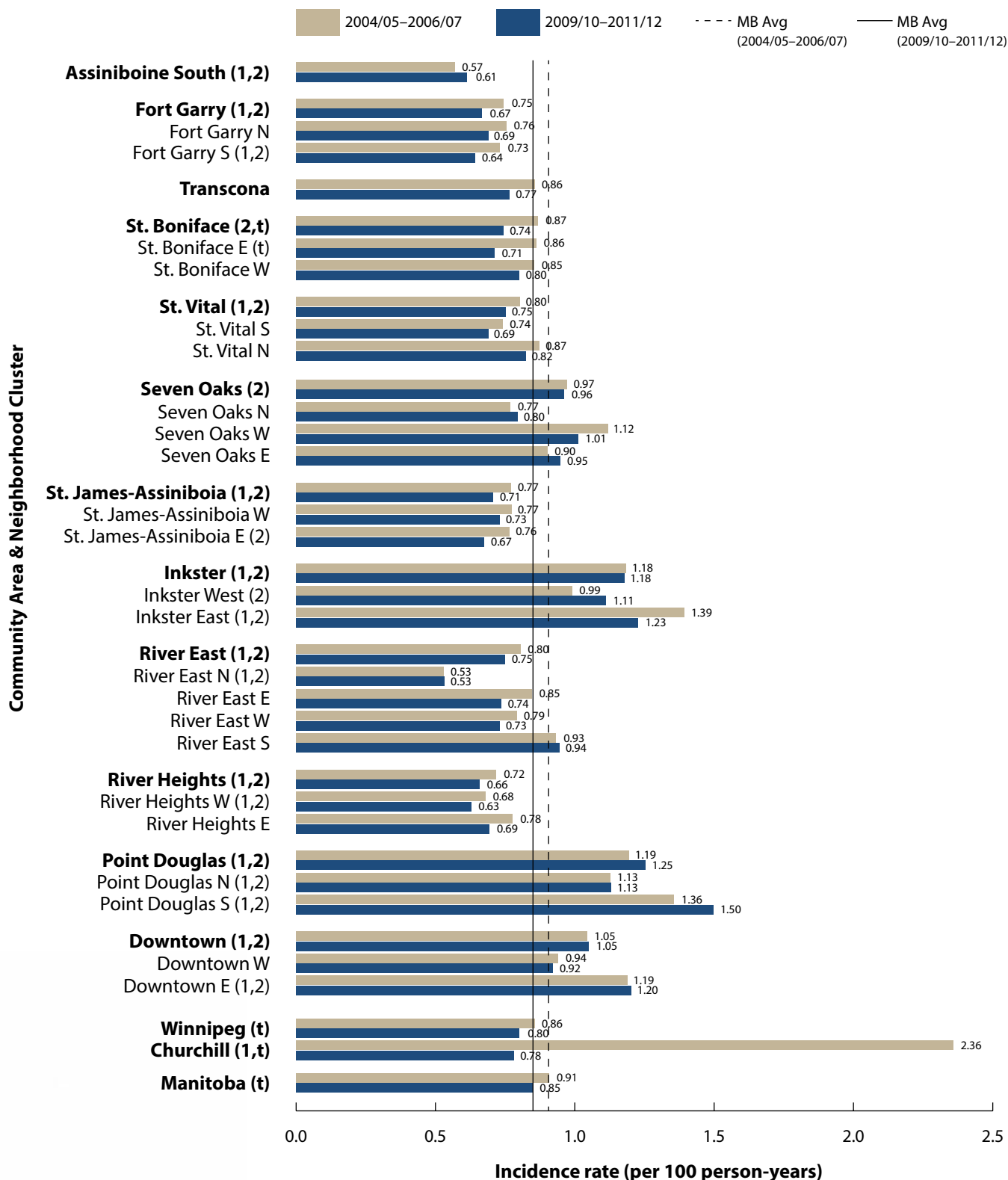
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.3.a3

Diabetes Incidence Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

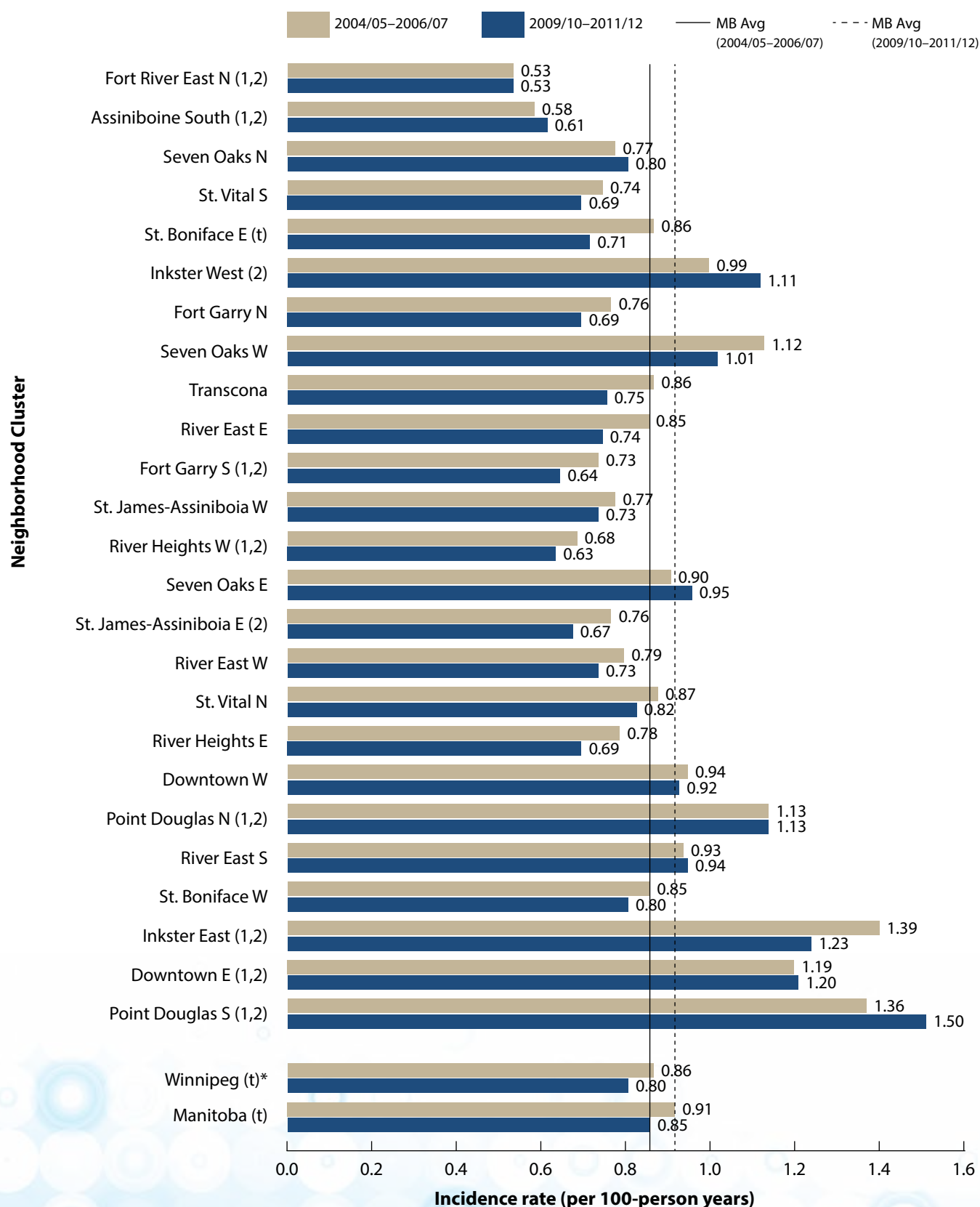
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates that for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.3.a4

Diabetes Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

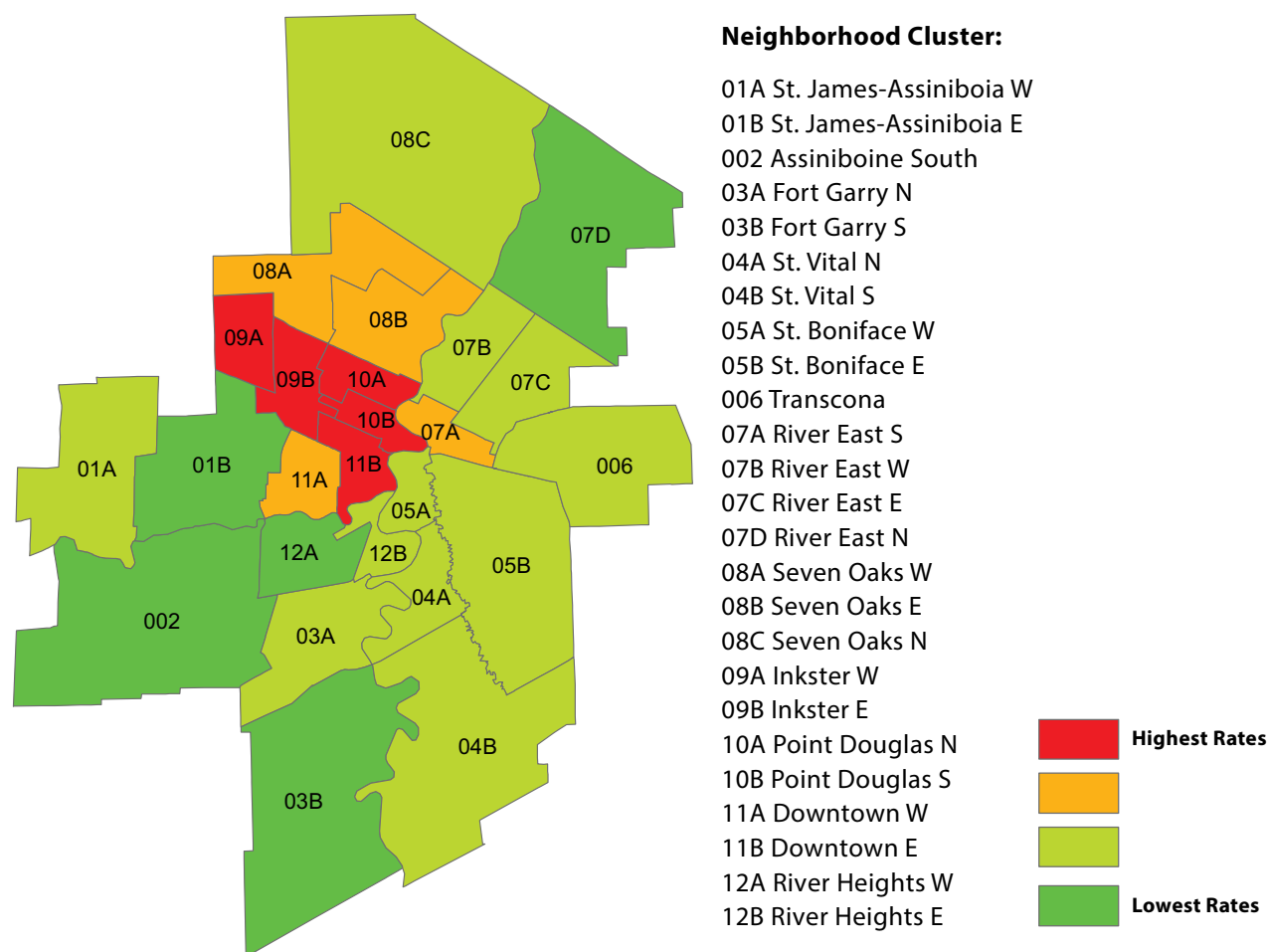
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Diabetes Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2009/10-2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.3.a1

Health Inequality in Diabetes Incidence (cases per 100 person-years) by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2004/05–2006/07 (new) cases per 100 person-years at risk	2009/10–2011/12 (new) cases per 100 person-years at risk
Diabetes Incidence (new cases) by <i>Neighborhood Cluster (NC)</i> median household income		
Highest income NC (River East N)	0.53 cases	0.53 cases
Lowest income NC (Point Douglas S)	1.36 cases	1.50 cases
Absolute difference (Lowest income NC – Highest income NC)	0.83 cases	0.97 cases
Ratio (Lowest income NC / Highest income NC)	2.57 cases	2.83 cases
Diabetes Incidence (new cases) by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	0.62 cases	0.57 cases
U4	0.74 cases	0.71 cases
U3	0.84 cases	0.81 cases
U2	0.96 cases	0.89 cases
Lowest Urban Income Quintile (U1)	1.12 cases	1.11 cases
Absolute difference (U1-U5)	0.50 cases	0.54 cases
Ratio (U1/U5)	1.81	1.95

Source: Manitoba Centre for Health Policy, 2013



Indicator: Diabetes Prevalence

DEFINITION: The proportion of persons aged 19 years and older determined to be persons treated for diabetes (type 1 or 2) within a three year period as defined by:

- at least one hospitalization with a diagnosis of diabetes, or
- at least two physician visits with diabetes, or
- at least one prescription for diabetes medication

NUMERATOR: Number of persons treated with diabetes (aged 19 years and older) in a three year period.

DENOMINATOR: All residents aged 19 years and older living in the Winnipeg Regional Health Authority (the Region) during the period.

CALCULATION: Prevalence was age- and sex-adjusted to the Manitoba population aged 19 years and older in the first time period (i.e., 2004/05–2006/07 Manitoba population as the standard population for 2004/05–2006/07 and 2009/10–2011/12; 1998/99–2000/01 Manitoba population as the standard population for 1998/99–2000/01 and 2003/04–2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Diabetes prevalence increased over time in the Region, from 5.8% in 1998/99–2000/01 to 9.2% in 2009/10–2011/12.
- Winnipeg diabetes prevalence has been consistently lower than Manitoba's diabetes prevalence.
- Diabetes prevalence varied across the Region, with Churchill having the highest prevalence (16.1% in 2009/10–2011/12). There was nearly 3-fold difference across the Region neighborhood clusters (NC), with the highest prevalence in Point Douglas South (15.8% in 2009/10–2011/12) and the lowest in River East North (5.8% in 2009/10–2011/12).
- There was a trend that lower income areas had higher diabetes prevalence, according to household income. In 2009/10–2011/12, diabetes prevalence in the lowest income NC was 2.72 times higher than that in the highest income NC; and those in the lowest income quintile had 1.78 times higher diabetes prevalence than those in the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- While diabetes incidence remained relatively stable during 2004/05–2011/12 (see Diabetes Incidence), prevalence increased. In Canada, diabetes prevalence increased by 21% from 2002/03 to 2006/07, with an average annual increase of 4%.¹
- The increase in diabetes prevalence might be attributable to more patients being identified as having diabetes, with receiving treatment and persons with diabetes surviving longer.²
- Diabetes and other endocrine and metabolic diseases accounted for 4.8% of deaths in Manitoba during 2007–2011.¹
- Diabetes can lead to a number of medical complications including cardiovascular diseases, kidney disease, nerve dysfunction and loss of vision. It can also cause economic burden; that is, annual per capita health care costs are three to four times greater in a population with diabetes compared to a population without the disease.³

¹ Public Health Agency of Canada. *Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009.*

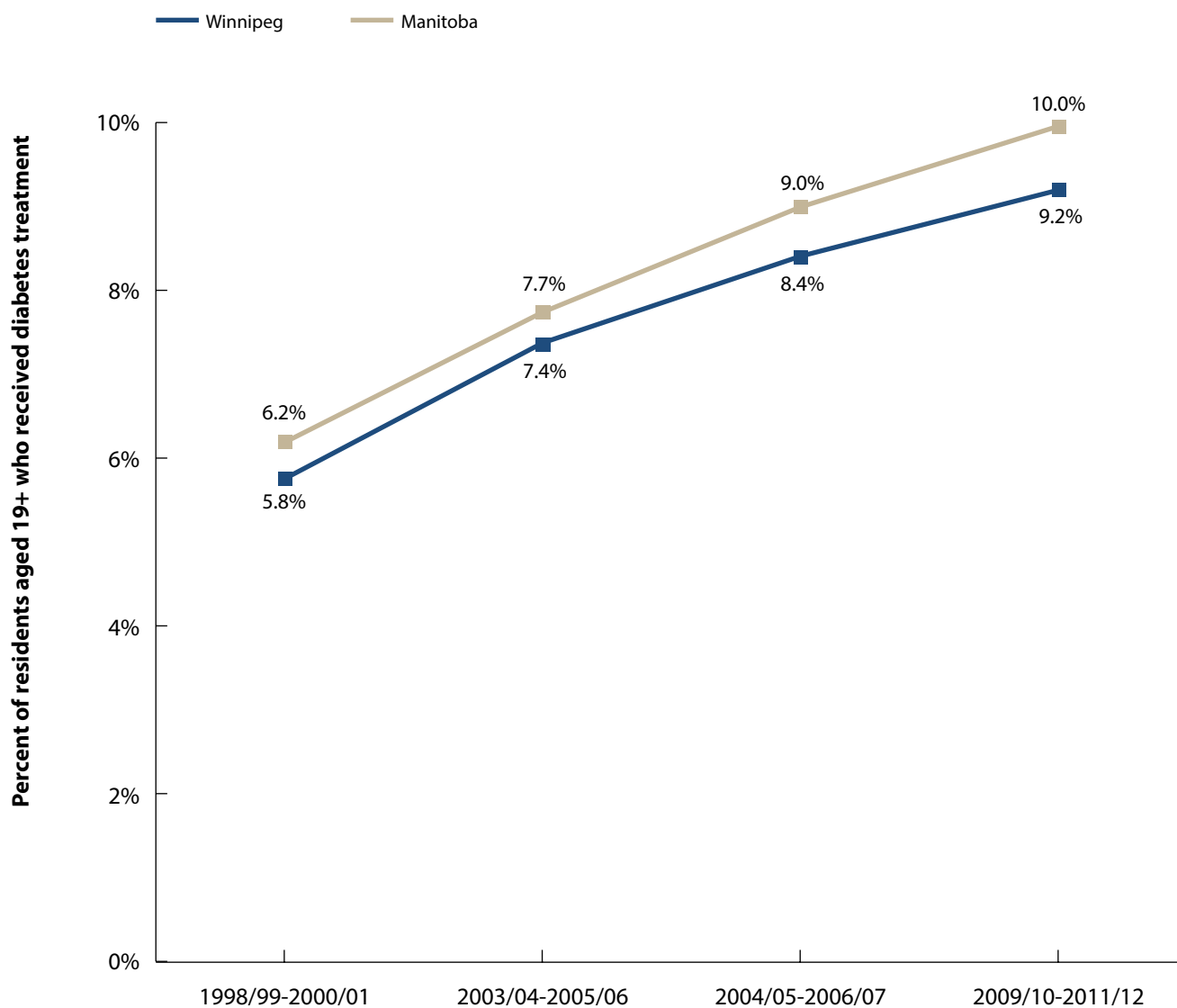
² Fransoo R, Martens P, The Need To Know Team, Prior H, Burchill C, Koseva I, Bailly A, Allegro E. *The 2013 RHA Indicators Atlas. Winnipeg, MB. Manitoba Centre for Health Policy, October 2013.*

³ Public Health Agency of Canada, *Diabetes in Canada: Facts and figures from a public health perspective. Ottawa, 2011.*

Figure A3.3.3.b1

Trends in Diabetes Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 19+ who received treatment for diabetes, 1998/99–2011/12

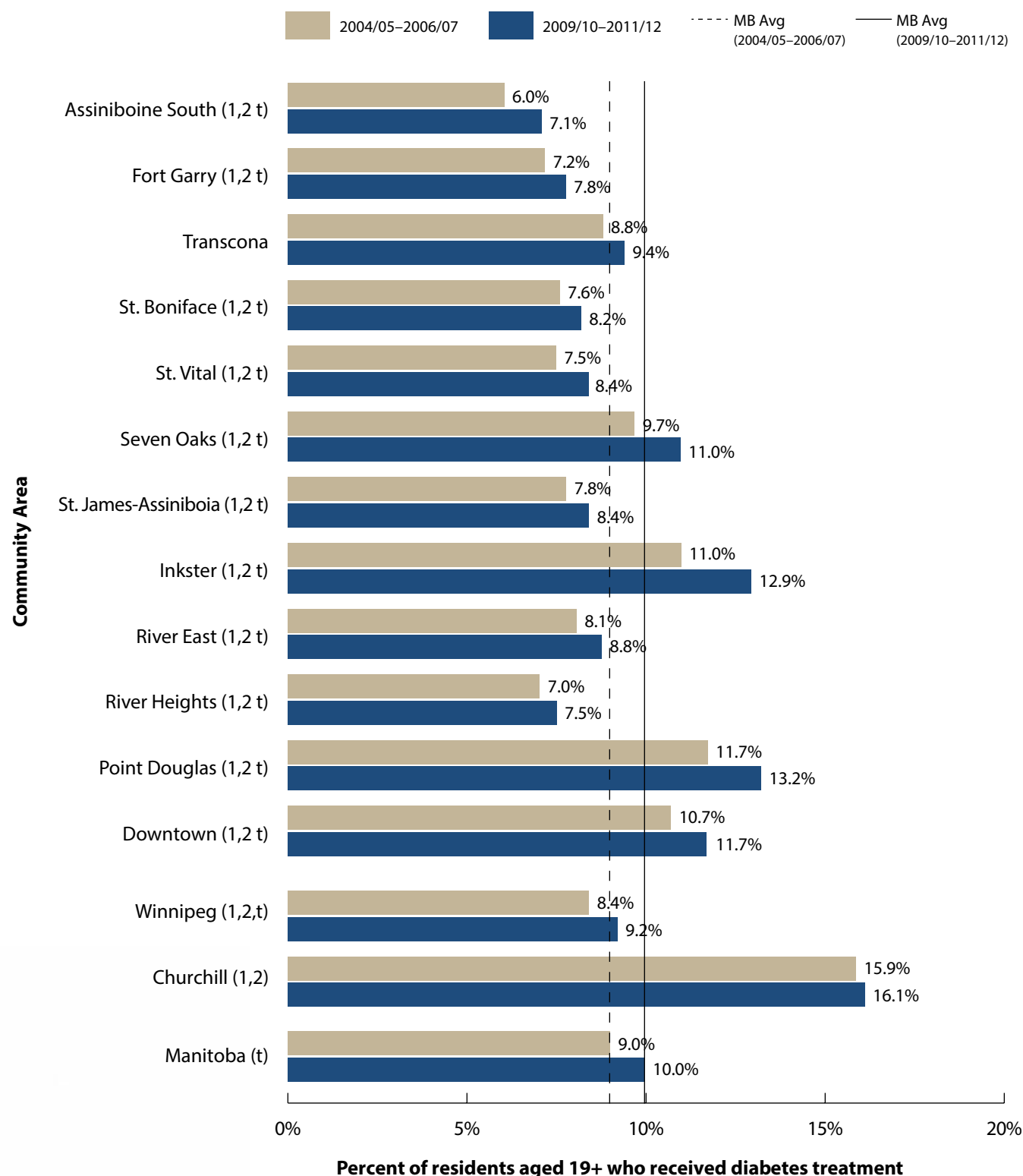


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.3.b2

Diabetes Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 19+ who received treatment for diabetes, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

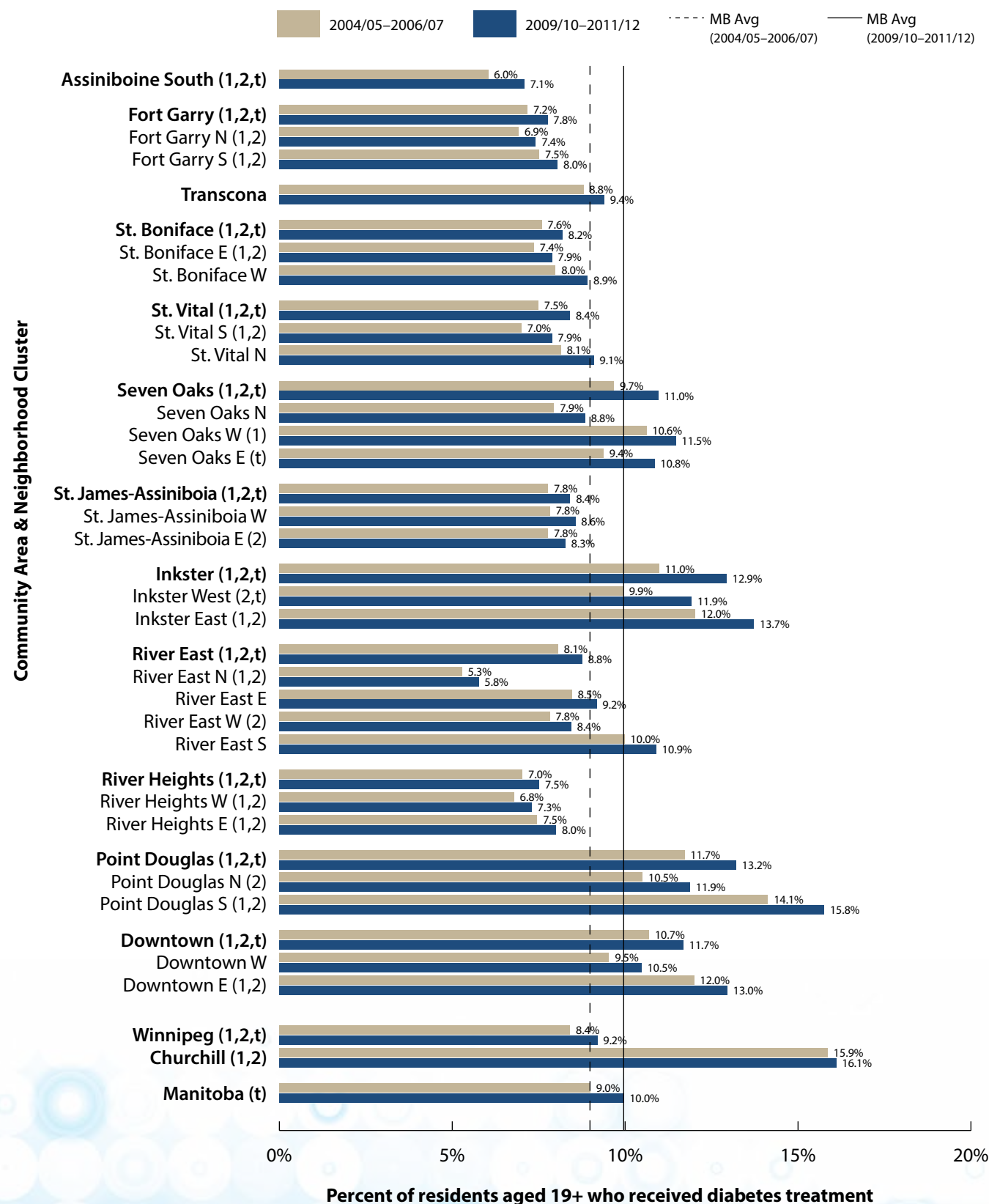
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.3.b3

Diabetes Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for diabetes, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

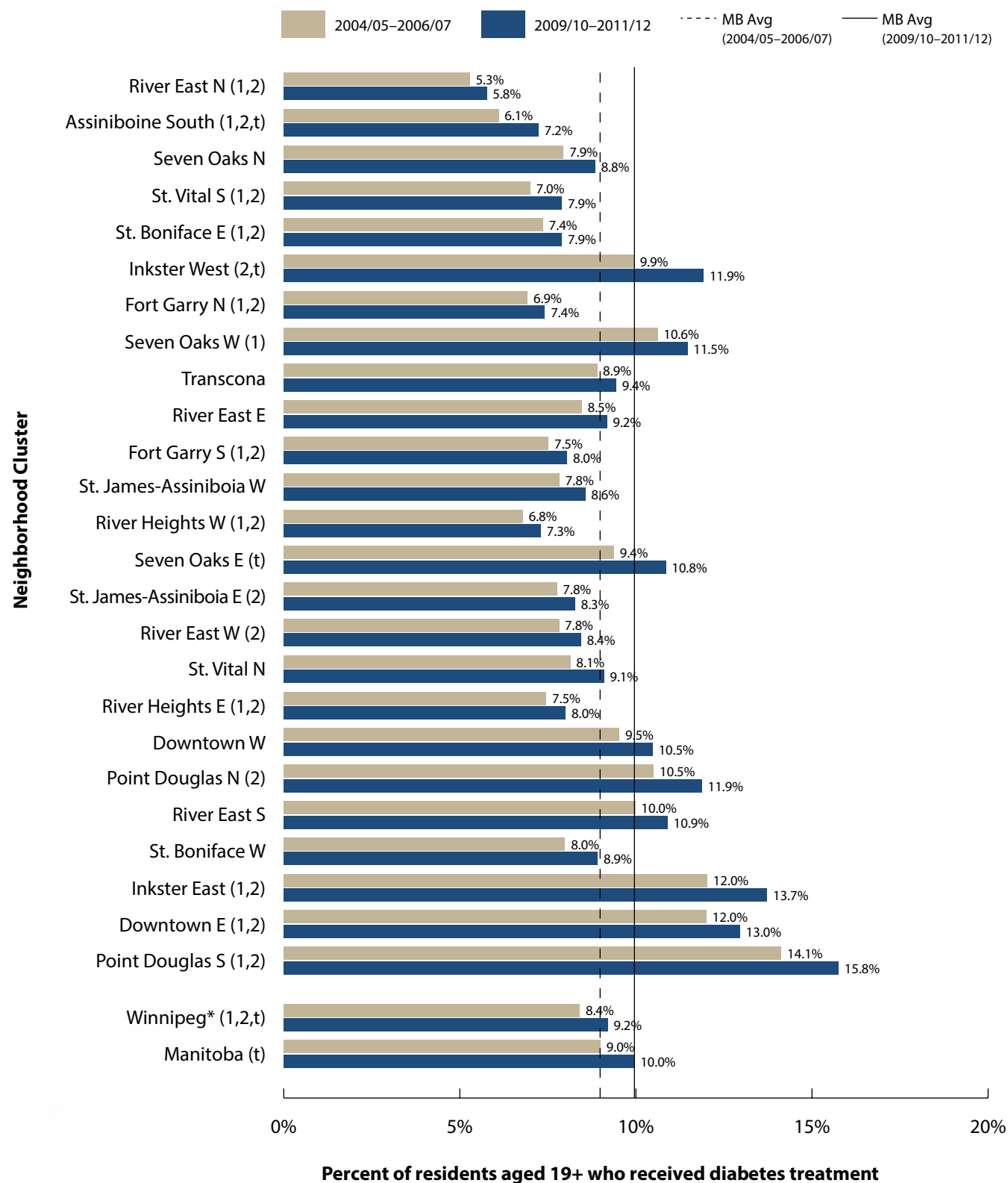
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.3.b4

Diabetes Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for diabetes, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

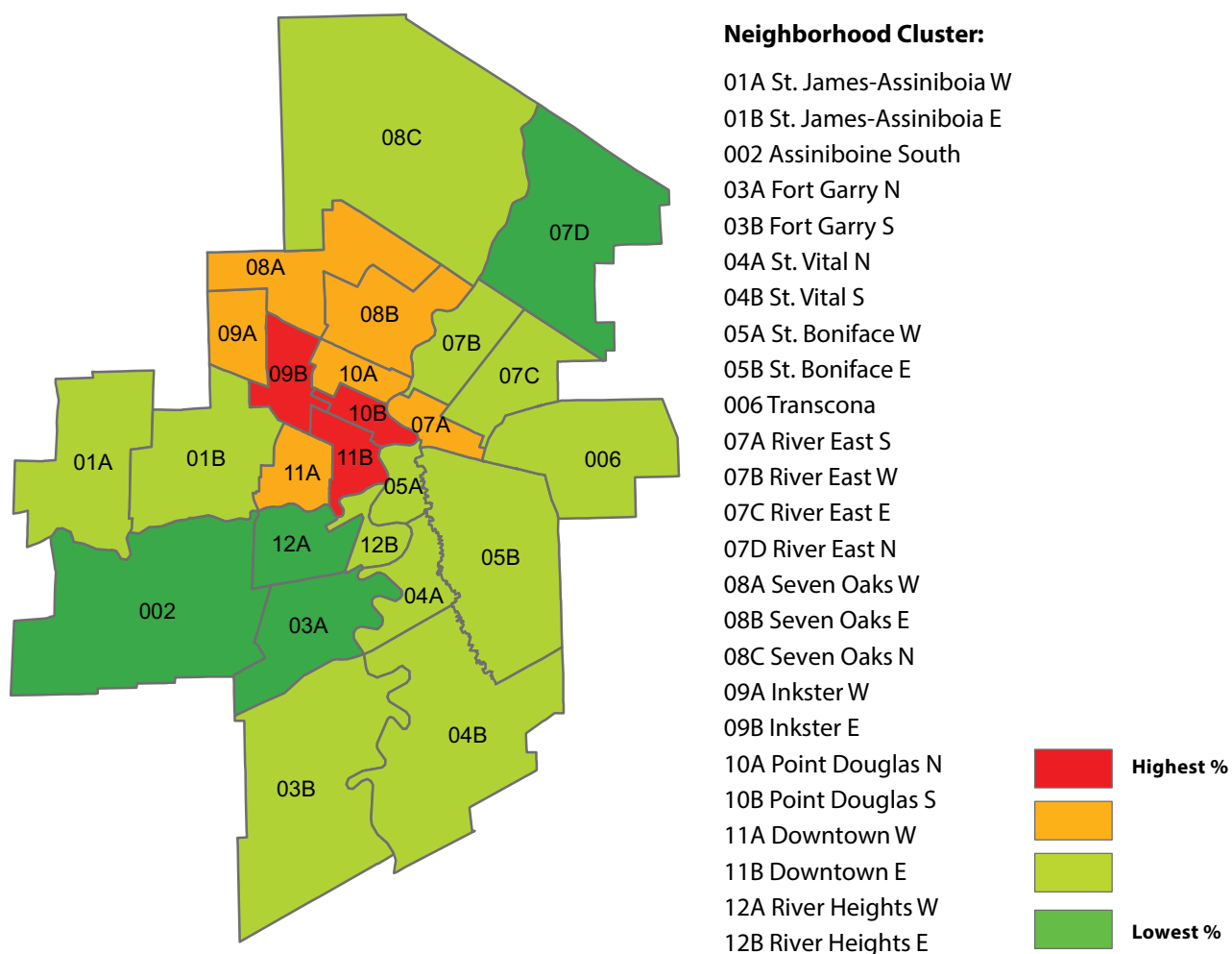
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Diabetes Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for diabetes, 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.3.b1

Health Inequality in Diabetes Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2004/05-2006/07 % of persons treated for diabetes	2009/10-2011/12 % of persons treated for diabetes
Persons treated for diabetes by <i>Neighborhood Cluster (NC)</i> <i>median household income</i>		
Highest income NC (River East N)	5.3%	5.8%
Lowest income NC (Point Douglas S)	14.1%	15.8%
Absolute difference (Lowest income NC – Highest income NC)	8.8%	10.0%
Ratio (Lowest income NC / Highest income NC)	2.66	2.72
Persons treated for diabetes by <i>Urban Income Quintile</i>	2004/05-2006/07 % of persons treated for diabetes	2009/10-2011/12 % of persons treated for diabetes
Highest Urban Income Quintile (U5)	6.1%	6.8%
U4	7.3%	8.2%
U3	8.0%	8.9%
U2	9.1%	9.9%
Lowest Urban Income Quintile (U1)	11.0%	12.1%
Absolute difference (U1-U5)	4.9%	5.3%
Ratio (U1/U5)	1.8	1.78

Source: Manitoba Centre for Health Policy, 2013



Indicator: Lower Limb Amputation Associated with Diabetes

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents with diabetes aged 19 years and older who had a lower limb amputation (below or including the knee). Only amputations associated with diabetes are included.

NUMERATOR: Number of the Region's residents with diabetes aged 19 years and older who had a hospitalization with a surgery for lower limb amputation.

DENOMINATOR: All persons in the Region with diabetes aged 19 years and older (3 years prior to the amputation).

CALCULATION: Proportion was calculated and was age- and sex-adjusted to the Manitoba population aged 19 years and older in the first time period (i.e., 2002/03-2006/07 Manitoba population as the standard population for 2002/03-2006/07 and 2007/08-2011/12; 1998/99-2002/03 Manitoba population as the standard population for 1998/99-2002/03 and 2001/02-2005/06). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2002/03-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The percent of diabetes-associated lower limb amputations in the Region has declined overtime, from 1.6% in 1998/99-2002/03 and 1.0% in 2007/08-2011/12.
- The percentage of amputations varied across the Region's communities, with the highest percentages in central areas of the Region: Point Douglas (1.9% in 2007/08-2011/12) and Downtown community areas (1.6% in 2007/08-2011/12).
- Persons with diabetes living in low income quintile areas were more likely to have a lower limb amputation. In 2007/08-2011/12, diabetic patients living in the lowest income neighborhood cluster (NC) were 3.2 times more likely to have a lower limb amputations than those living in the highest NC; and persons in the lowest income quintile were 2.67 times more likely to have a lower limb amputation than those persons in the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

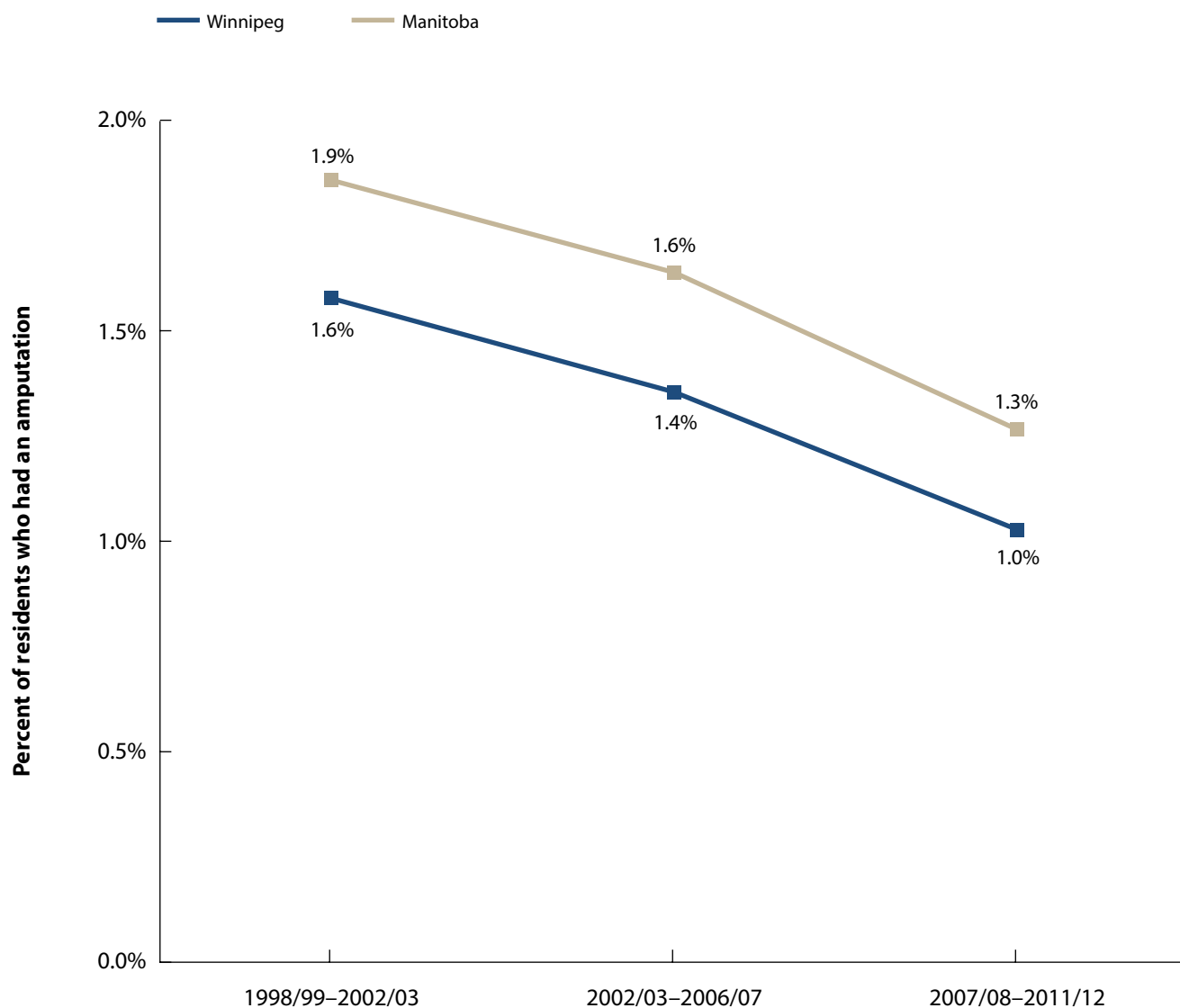
- Canadian adults with diabetes are about 20 times more likely to be hospitalized with a non-traumatic lower limb amputation than those non-diabetic adults.¹
- Lower limb amputations can lead to increased morbidity, mortality and healthcare costs.
- Effective foot and nail care, including regular foot exams and aggressive treatment of infections, is the key to preventing low limb amputations in individuals with diabetes.

¹ Public Health Agency of Canada. Report from the National Diabetes Surveillance System: Diabetes in Canada, 2009.

Figure A3.3.3.c1

Trends in Lower Limb Amputation Among Residents with Diabetes in Winnipeg & Manitoba

Age- & sex-adjusted percent of people with diabetes (aged 19+) who had an amputation in a five-year period, 1998/99–2011/12

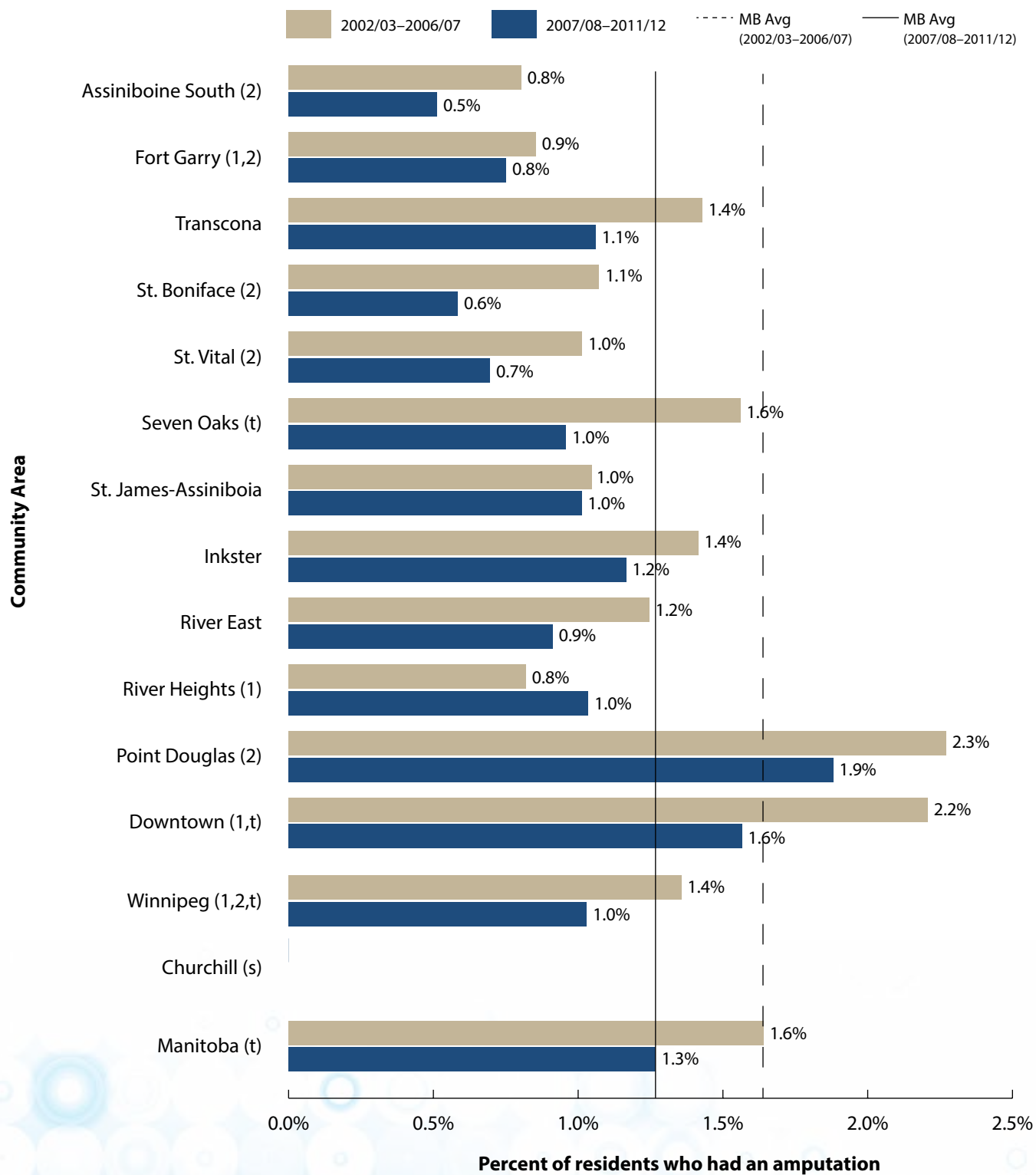


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.3.c2

Lower Limb Amputation Among Residents with Diabetes by Winnipeg Community Area

Age- & sex-adjusted percent of people with diabetes (aged 19+) who had an amputation in a five-year period, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

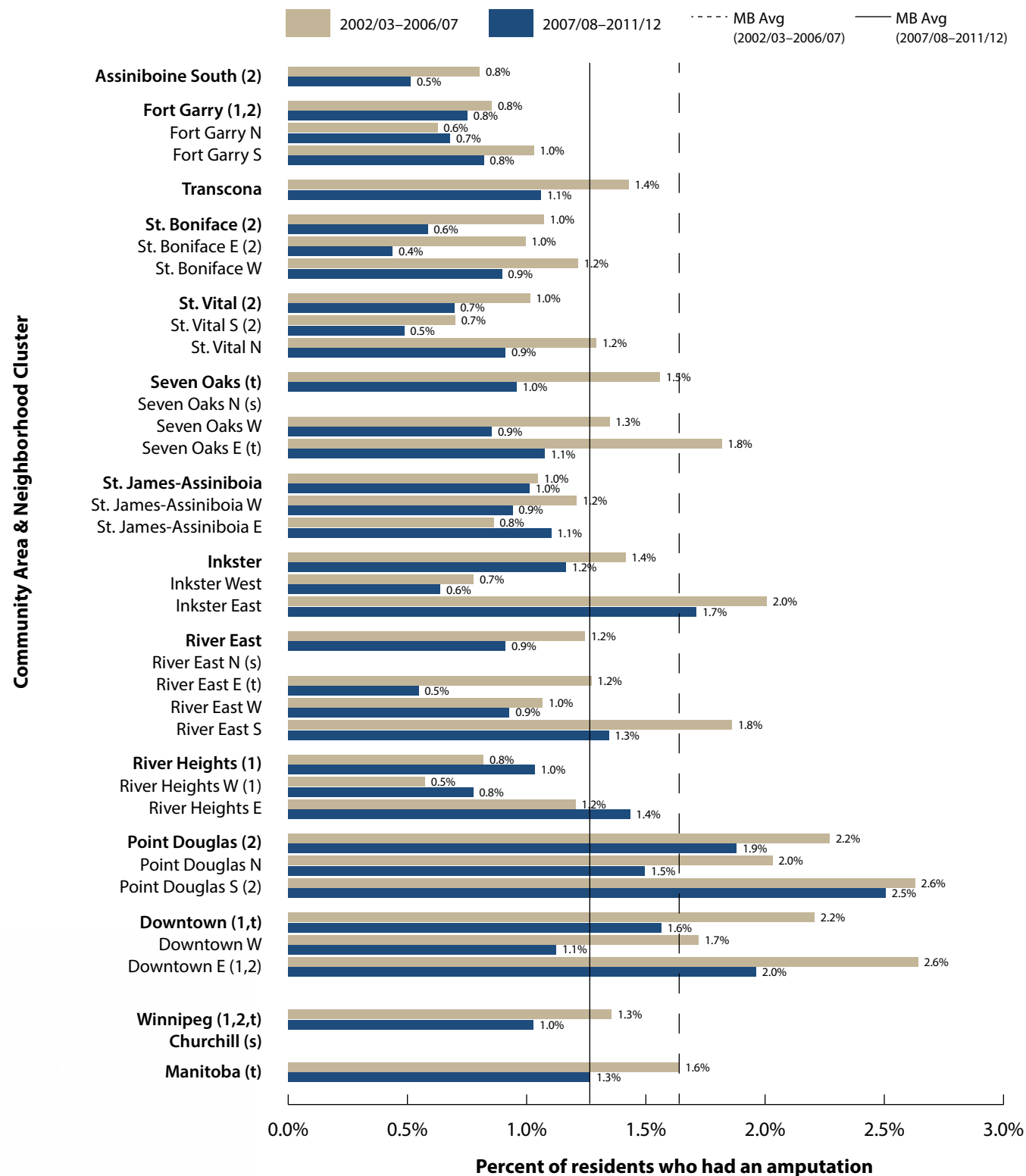
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.3.c3

Lower Limb Amputation Among Residents with Diabetes by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of people with diabetes (aged 19+) who had an amputation in a five-year period, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

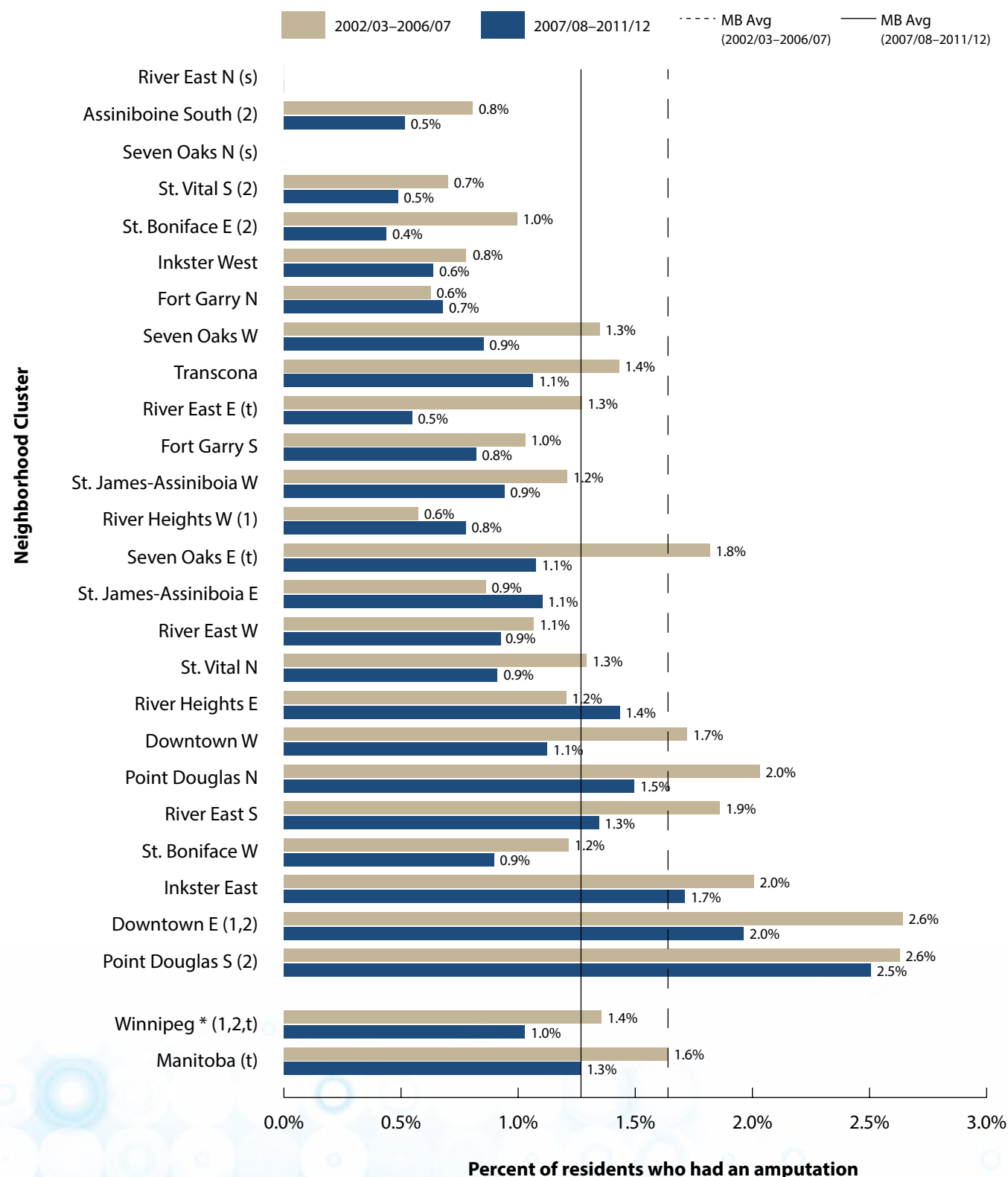
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.3.c4

Lower Limb Amputation Among Residents with Diabetes by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of people with diabetes (aged 19+) who had an amputation in a five-year period,
2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

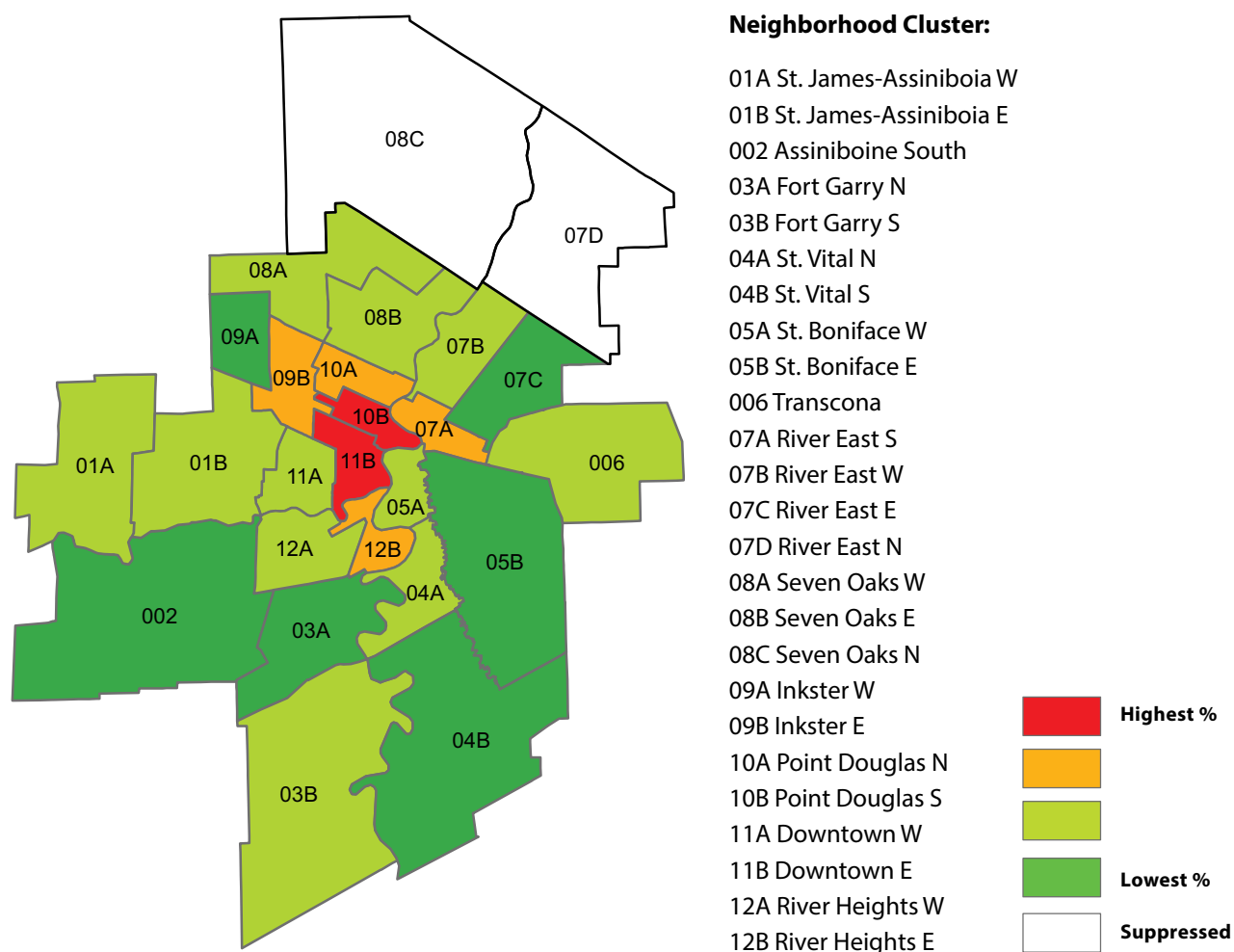
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Lower Limb Amputation Among Residents with Diabetes by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of people with diabetes (aged 19+) who had an amputation in a five-year period, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.3.c1

**Health Inequality in Lower Limb Amputation Associated with Diabetes (% of persons with diabetes),
by Median Household Income & Urban Income Quintile**

Health Inequality Measures	Time Period	
	2002/03-2006/07 % diabetics with lower limb amputations	2007/08-2011/12 % diabetics with lower limb amputations
Lower limb amputations (% diabetics) <i>by Community Area (CA) median household income</i>		
Highest income CA (Assiniboine South)	0.8%	0.5%
Lowest income CA (Downtown)	2.2%	1.6%
Absolute difference (Lowest income CA – Highest income CA)	1.4%	1.1%
Ratio (Lowest income CA / Highest income CA)	2.75	3.2
Lower limb amputations (% diabetics) <i>by Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	0.6%	0.6%
U4	1.1%	0.5%
U3	1.0%	0.9%
U2	1.5%	1.1%
Lowest Urban Income Quintile (U1)	2.0%	1.6%
Absolute difference (U1-U5)	1.4%	1.0%
Ratio (U1/U5)	3.33	2.67

Source: Manitoba Centre for Health Policy (MCHP), 2013



Indicator: Ischemic Heart Disease (IHD) Incidence

DEFINITION: Incidence is expressed as the number of new cases of ischemic heart disease (IHD) found during a specific period of time (e.g., over 1-year, 2-year or 5-year spans) divided by the amount of time contributed by persons at risk of developing IHD. Specifically, it is the average number of new cases of ischemic heart disease in Winnipeg Regional Health Authority (the Region) residents aged 19 years and older per 100 person-years at risk as defined by either:

- at least one hospitalization with IHD, or
- at least two physician visits with IHD, or
- one physician visit with IHD and at least two prescriptions for IHD medication

NUMERATOR: The number of the Region's residents aged 19 years and older newly diagnosed (as defined above) with ischemic heart disease (IHD).

DENOMINATOR: The number of the Region's residents aged 19 years and older and at risk of developing ischemic heart disease (i.e., not having a previous diagnostic claim) during a specific year period.

CALCULATION: Incidence was calculated for 2002/03–2006/07 and 2007/08–2011/12 and was age- and sex-adjusted to the Manitoba population aged 19 years and older in the first time period (i.e., 2002/03–2006/07 Manitoba population as the standard population for 2002/03–2006/07 and 2007/08–2011/12).

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- Ischemic heart disease (IHD) incidence rates in the Region decreased from 0.79 cases 100 person-years in 2002/03–2006/07 to 0.66 cases per 100 person-years in 2007/08–2011/12.
- IHD incidence varied across the Region, with the highest rates in the Point Douglas community area (0.92 cases per 100 person-year in Point Douglas North and 0.90 cases per 100 person-year in Point Douglas South) and the lowest rate in the Assiniboine South community area (0.50 cases per 100 person-year), during the second time period (2007/08–2011/12).
- There was modest income-related inequality in IHD incidence: residents in the lower income quintile had a higher IHD incidence rate.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

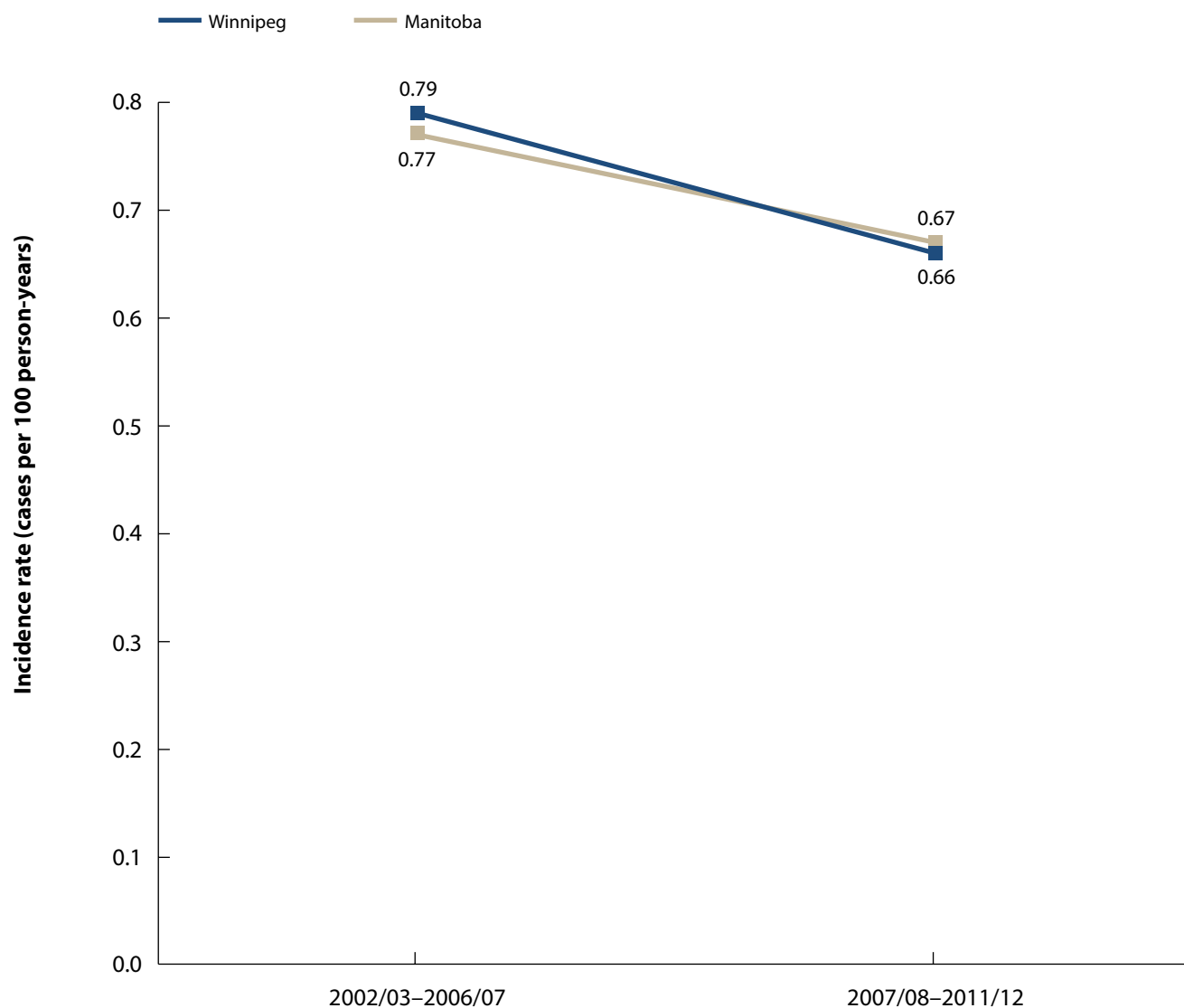
- The indicator excludes new cases not receiving any medical treatment and may underestimate the actual incidence rate.
- In Canada, hospitalizations due to IHD have been decreasing since 1970s.¹
- The decrease in IHD incidence rate may reflect: (i) better prevention (e.g., by reductions in smoking and increased physical activity); (ii) better management of underlying conditions such as hypertension and high cholesterol.
- IHD is preventable by adopting healthy lifestyles (e.g., not smoking, participating in regular physical activity, eating a healthy diet, and maintaining a healthy weight), effectively managing stress and by preventing other chronic diseases including hypertension, high cholesterol, and diabetes.

¹ Public Health Agency of Canada. *Tracking heart disease and stroke in Canada*. Ottawa, 2009.

Figure A3.3.4.a1

Trends in Ischemic Heart Disease (IHD) Incidence Rates in Winnipeg & Manitoba

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2002/03–2011/12

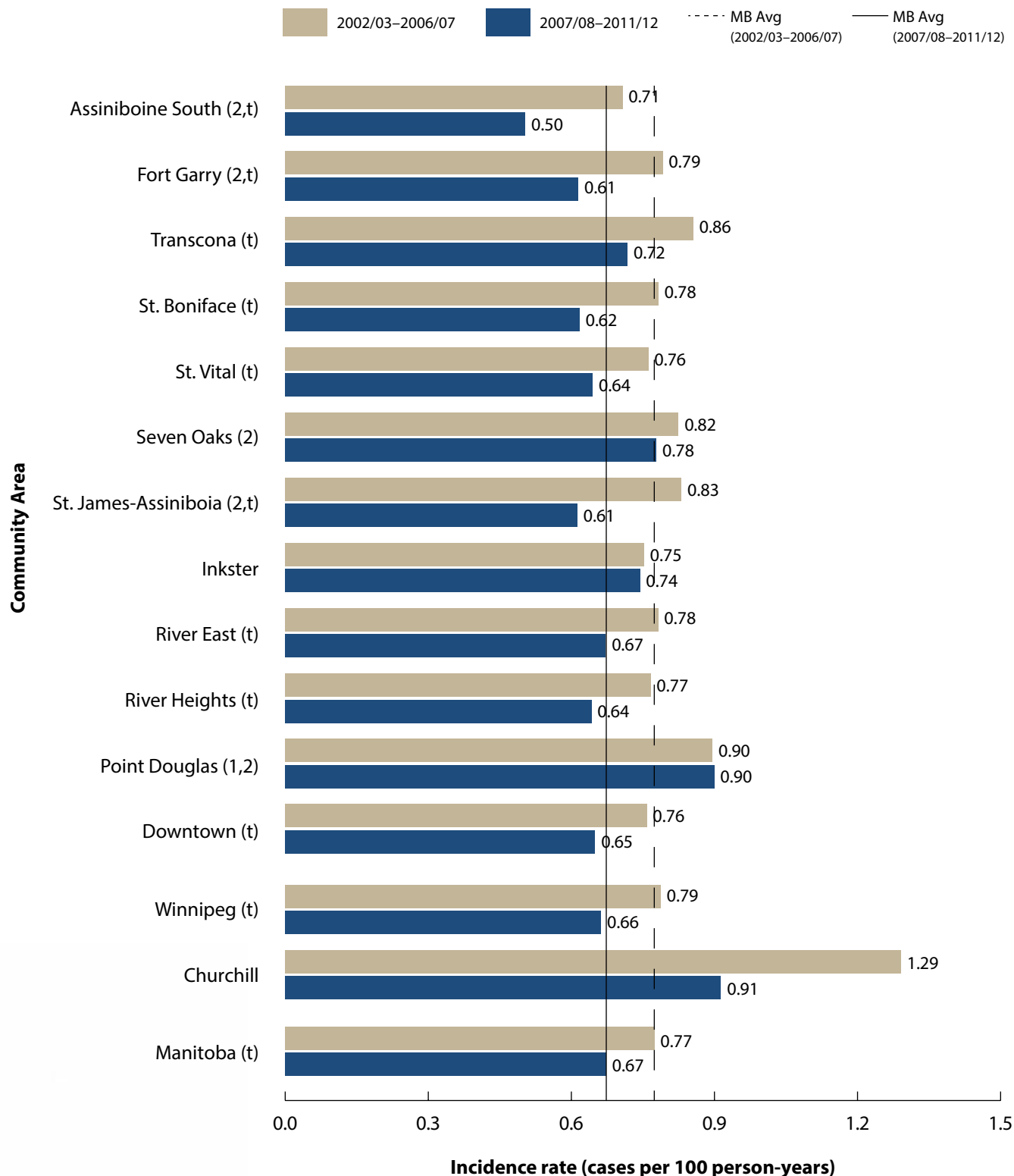


Source: Manitoba Centre for Health Policy, 2013

Figure A3.3.4.a2

Ischemic Heart Disease (IHD) Incidence Rates by Winnipeg Community Area

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

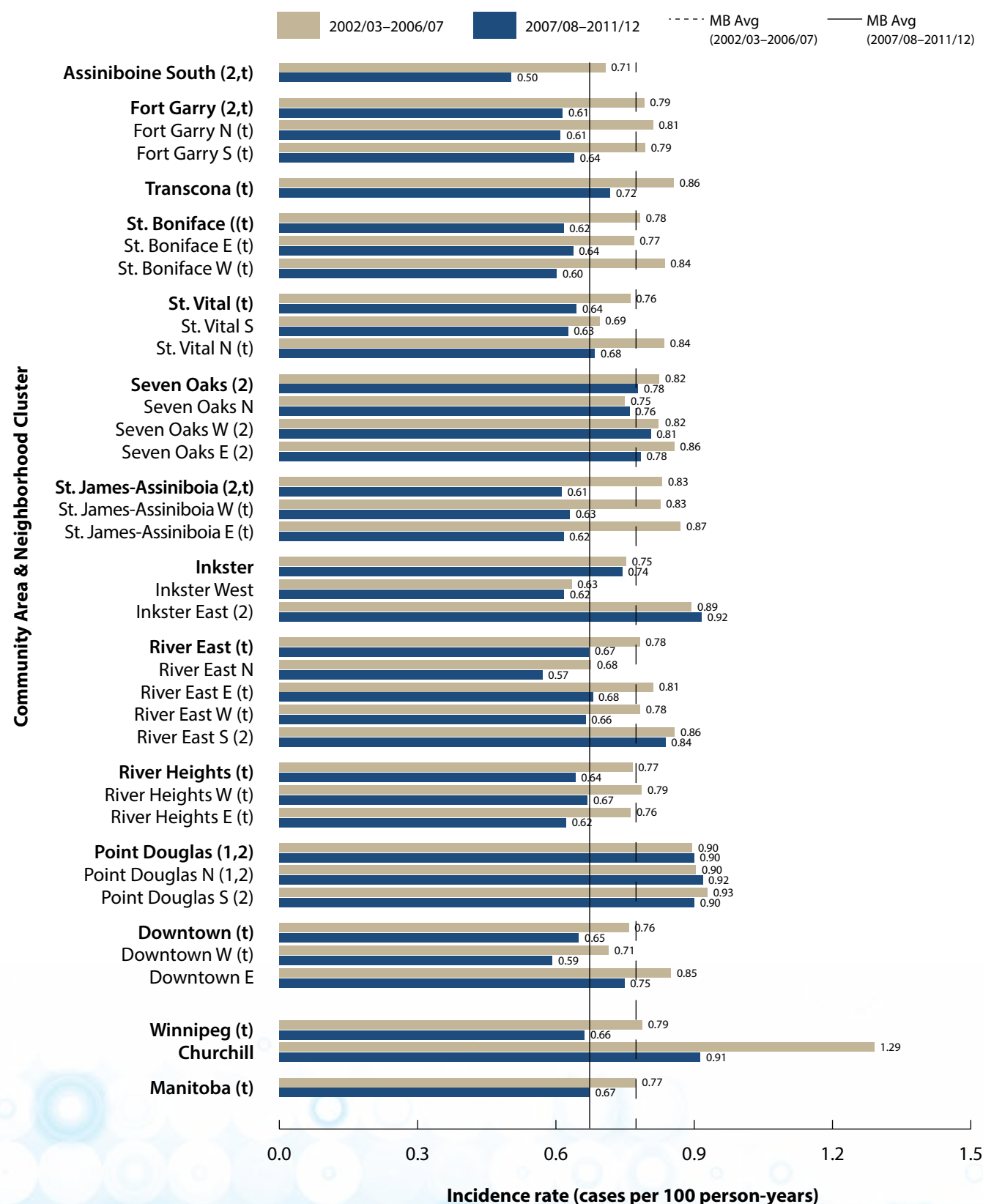
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.4.a3

Ischemic Heart Disease (IHD) Incidence Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

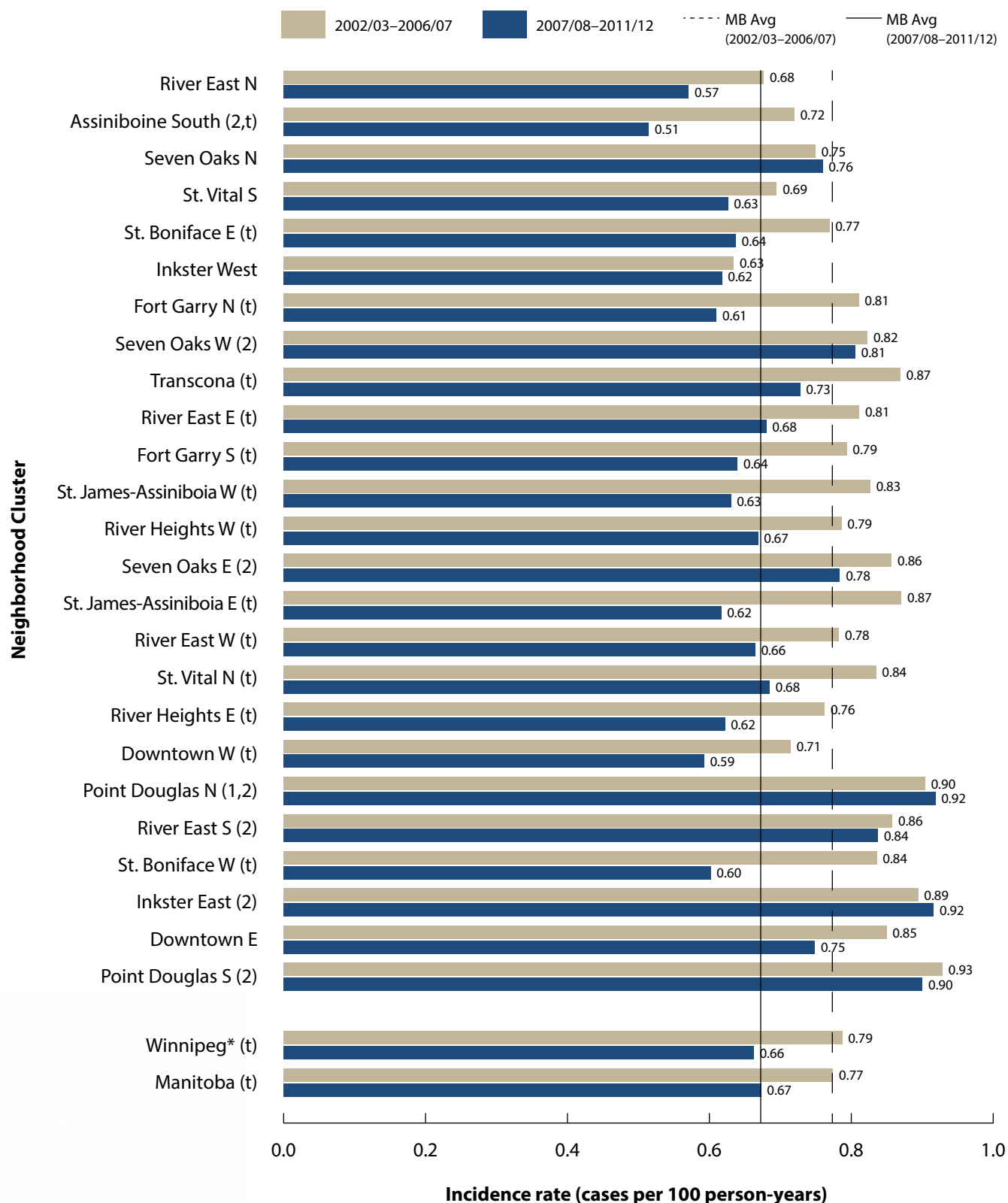
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.4.a4

Ischemic Heart Disease (IHD) Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

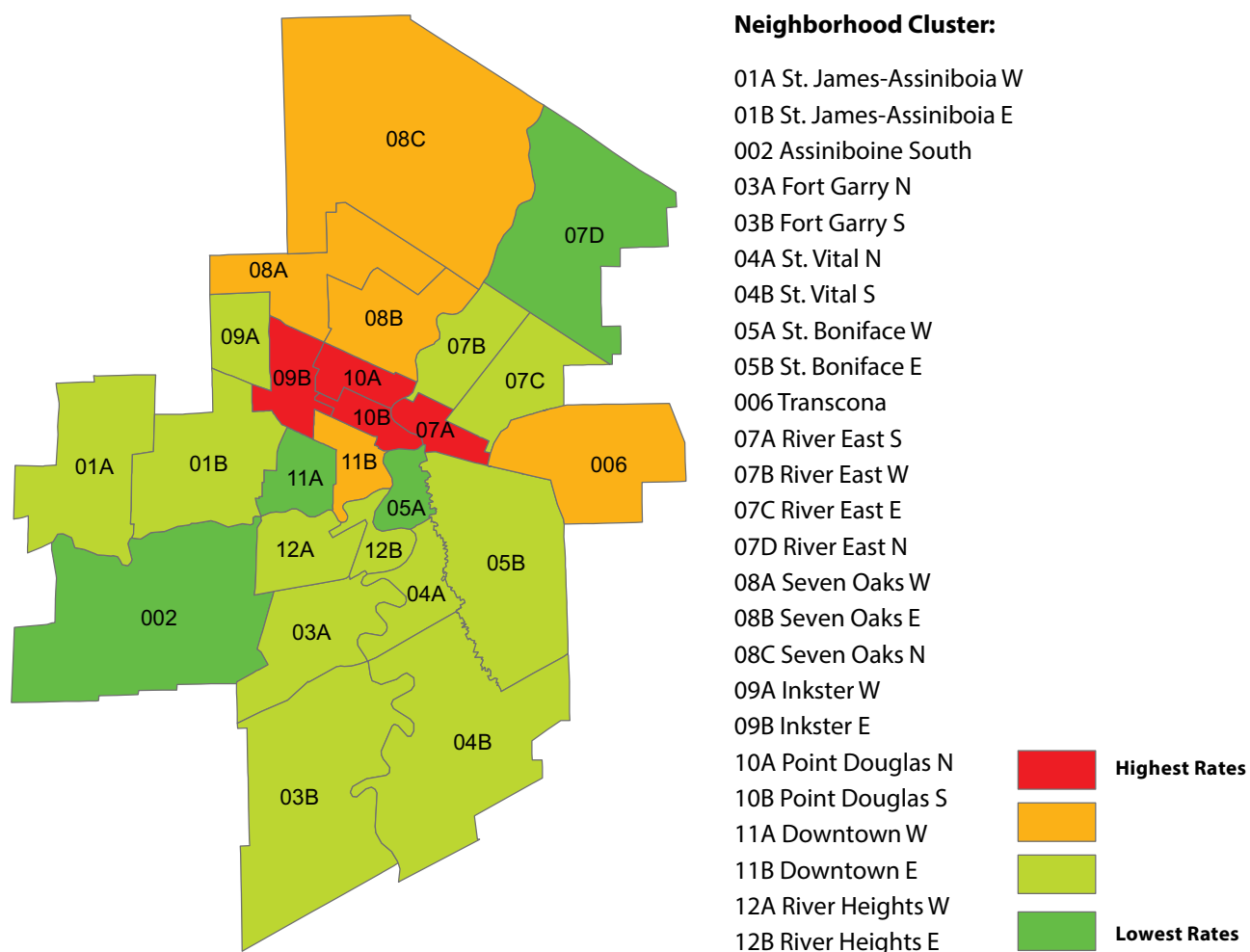
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Ischemic Heart Disease (IHD) Incidence Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted incidence rate (cases per 100 person-years) for residents aged 19+, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.4.a1

Health Inequality in Ischemic Heart Disease (IHD) Incidence Rates (cases per 100 person-years), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03-2006/07 (new) cases per 100 person-years	2007/08-2011/12 (new) cases per 100 person-years
Ischemic heart disease (IHD) Incidence by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	0.68 cases	0.57 cases
Lowest income NC (Point Douglas S)	0.93 cases	0.90 cases
Absolute difference (Lowest income NC – Highest income NC)	0.25 cases	0.33 cases
Ratio (Lowest income NC / Highest income NC)	1.37	1.58
Ischemic heart disease (IHD) Incidence by <i>Urban Income Quintile</i>	2002/03-2006/07 (new) cases per 100 person-years	2007/08-2011/12 (new) cases per 100 person-years
Highest Urban Income Quintile (U5)	0.69 cases	0.56 cases
U4	0.70 cases	0.60 cases
U3	0.77 cases	0.65 cases
U2	0.84 cases	0.72 cases
Lowest Urban Income Quintile (U1)	0.89 cases	0.78 cases
Absolute difference (U1-U5)	0.20 cases	0.22 cases
Ratio (U1/U5)	1.29	1.39

Source: Manitoba Centre for Health Policy (MCHP), 2013



Indicator: Ischemic Heart Disease (IHD) Prevalence

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents aged 19 years and older with ischemic heart disease (IHD) in a five-year period as defined by either:

- at least one hospitalization with an IHD, or
- at least two physician visits with an IHD, or
- one physician visit with IHD and at least two prescriptions for IHD medications

NUMERATOR: The number of the Region's residents aged 19 years and older treated for IHD.

DENOMINATOR: The number of the Region's residents aged 19 years and older.

CALCULATION: Prevalence was calculated and was age- and sex-adjusted to the Manitoba population aged 19 years and older in the first time period (i.e., 2002/03-2006/07 Manitoba population as the standard population for 2002/03-2006/07 and 2007/08-2011/12; 1996/97-2000/01 Manitoba population as the standard population for 1996/97-2000/01 and 2001/02-2005/06). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2002/03-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Ischemic heart disease (IHD) prevalence has declined from 9.3% in 1996/97-2000 to 7.9% in 2007/08-2011/12 in the Region.
- IHD prevalence varies across the Region: Neighborhood cluster (NC) Point Douglas South had the highest prevalence (10.9% in 2007/08-2011/12); Inkster West had the lowest prevalence (6.3% in 2007/08-2011/12).
- Household income was associated with IHD prevalence. The IHD prevalence was 63% higher in the lowest income NC (Point Douglas S) than that in the highest income NC (River East N) in 2007/08-2011/12; the prevalence for the lowest income quintile was 36% higher than that for the highest income quintile.

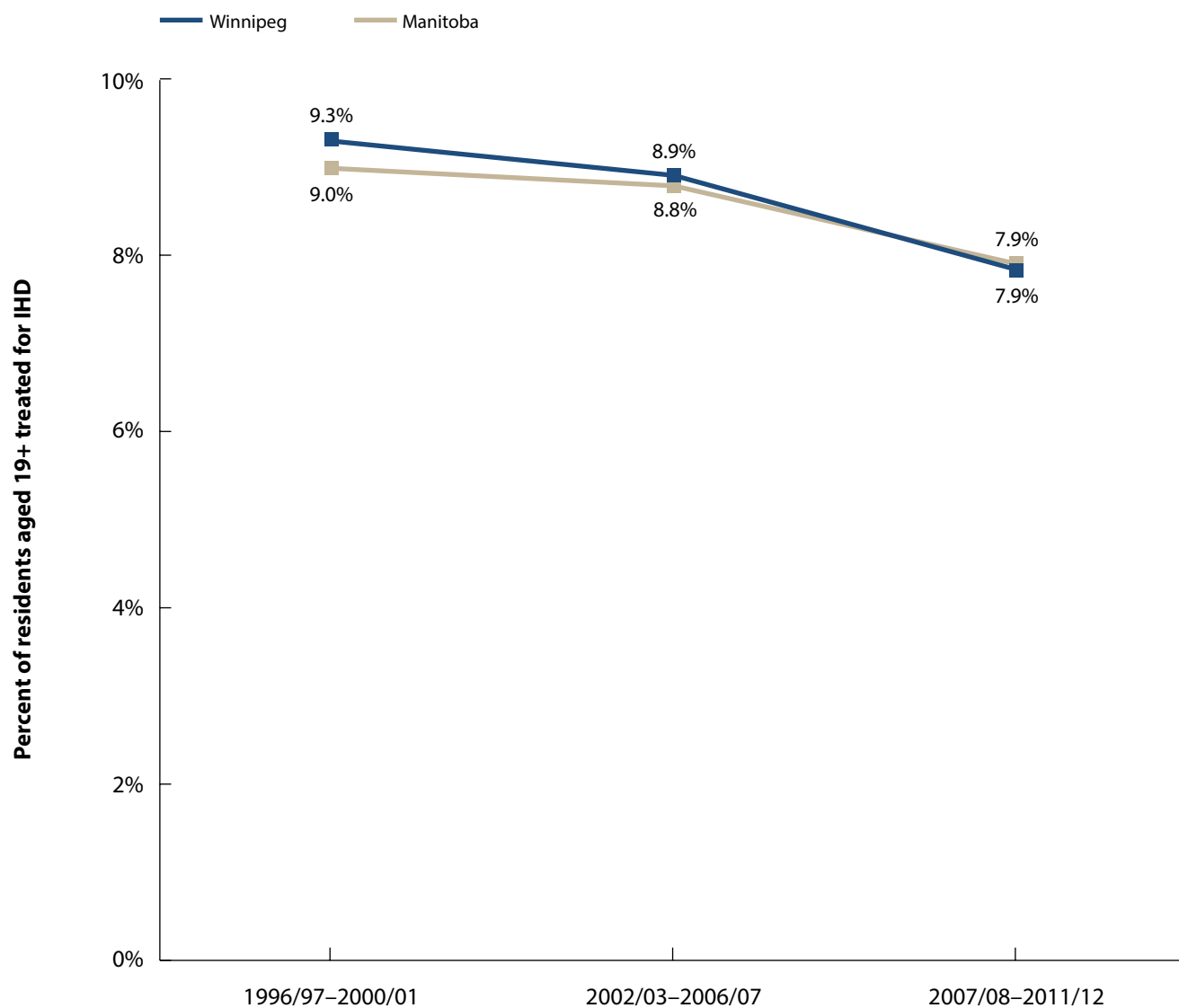
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Lifestyle modifications, including smoking cessation, weight control, and exercise, are effective in reducing the risk of future cardiovascular events among IHD patients.
- Managing hypertension, hyperlipidemia, and/or diabetes is important for IHD patients with one or more of these conditions.
- The decrease in IHD treatment prevalence may be explained by declining IHD incidence.
- The geographic variation of treatment prevalence may be related to IHD incidence rather than the access to IHD treatment.

Figure A3.3.4.b1

Trends in Ischemic Heart Disease (IHD) Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 19+ who received treatment for ischemic heart disease, 1996/97–2011/12

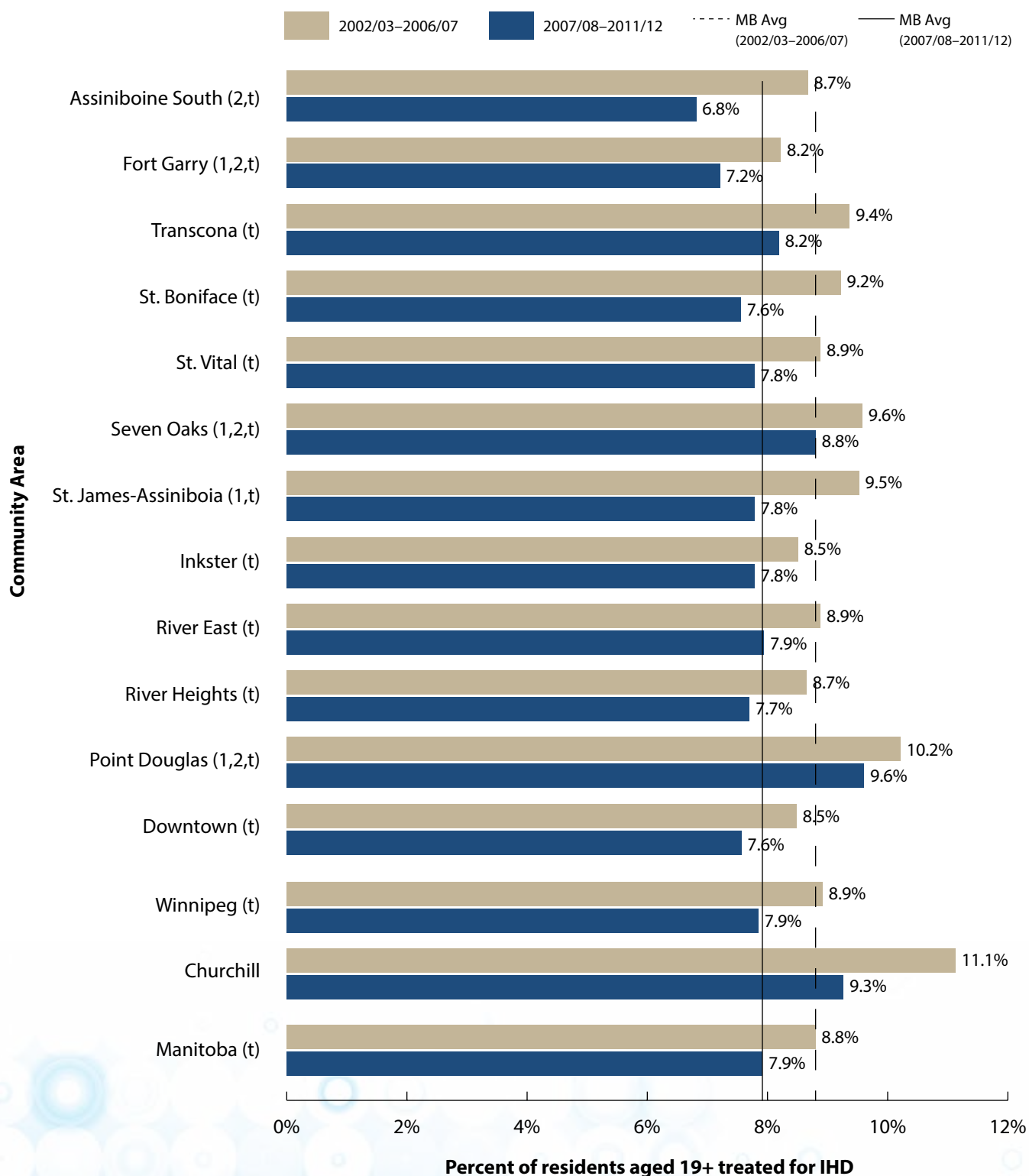


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.4.b2

Ischemic Heart Disease (IHD) Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 19+ who received treatment for ischemic heart disease, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

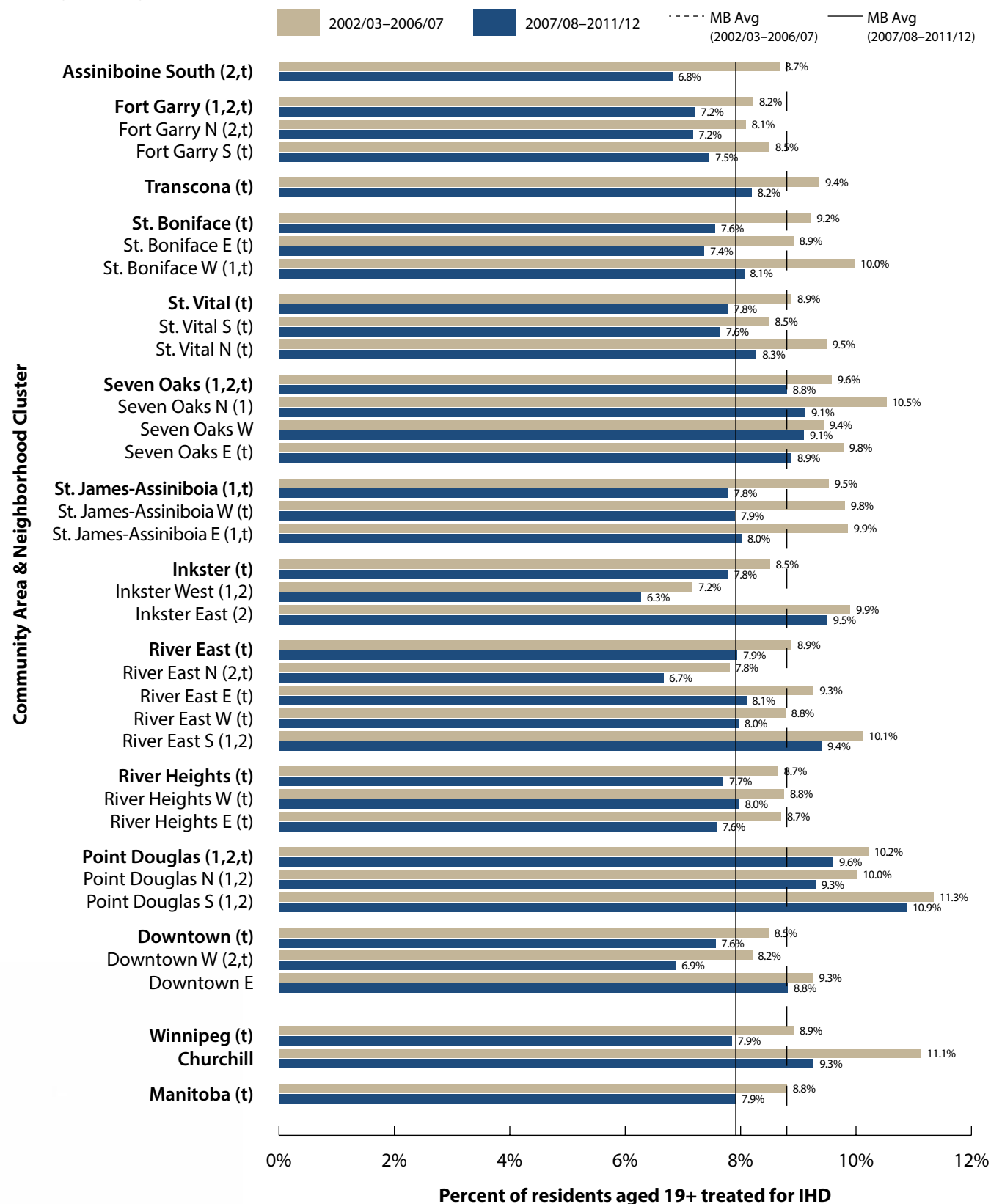
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.4.b3

Ischemic Heart Disease (IHD) Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for ischemic heart disease, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

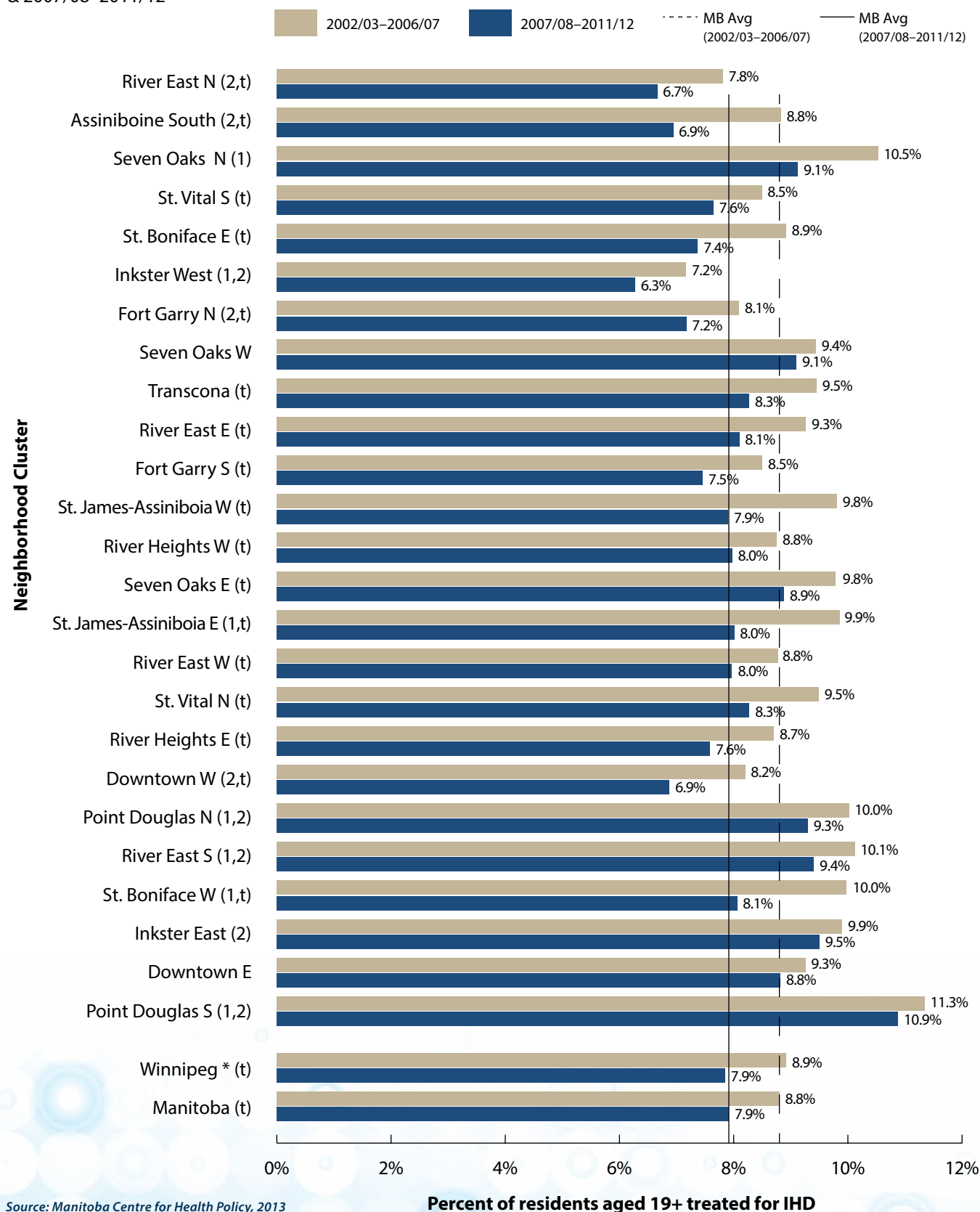
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.4.b4

Ischemic Heart Disease (IHD) Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for ischemic heart disease, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

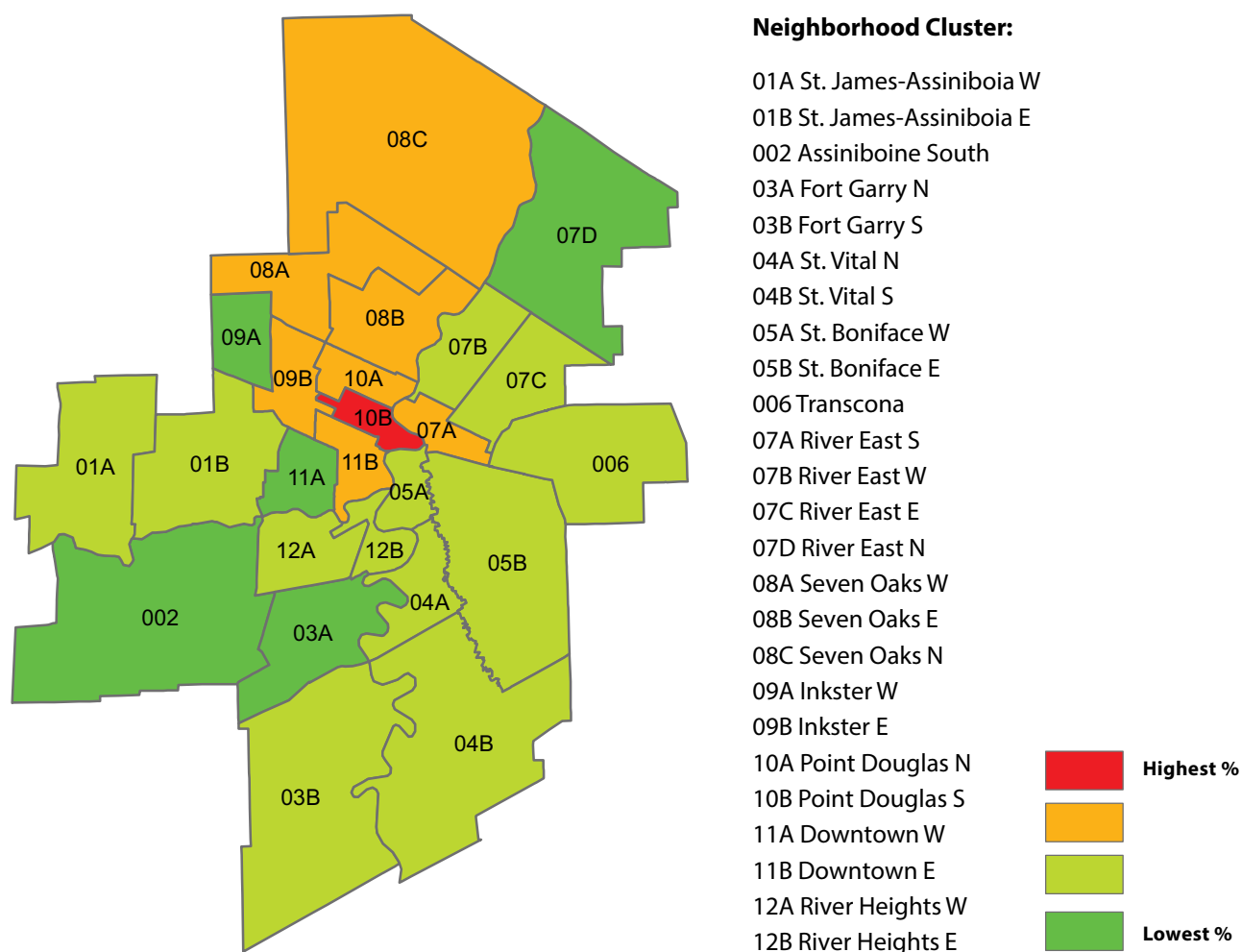
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Ischemic Heart Disease (IHD) Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 19+ who received treatment for ischemic heart disease, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.4.b1

Health Inequality in Ischemic Heart Disease (IHD) Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03-2006/07 % treated with IHD	2007/08-2011/12 % treated with IHD
Ischemic Heart Disease (IHD) Prevalence by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	7.8%	6.7%
Lowest income NC (Point Douglas S)	11.3%	10.9%
Absolute difference (Lowest income NC – Highest income NC)	3.5%	4.2%
Ratio (Lowest income NC / Highest income NC)	1.45	1.63
Ischemic Heart Disease (IHD) Prevalence by <i>Urban Income Quintile</i>	2002/03-2006/07 % treated with IHD	2007/08-2011/12 % treated with IHD
Highest Urban Income Quintile (U5)	7.7%	6.7%
U4	8.1%	7.0%
U3	8.7%	7.4%
U2	9.2%	8.1%
Lowest Urban Income Quintile (U1)	10.1%	9.1%
Absolute difference (U1-U5)	2.4%	2.4%
Ratio (U1/U5)	1.31	1.36

Source: Manitoba Centre for Health Policy, 2013

Indicator: Acute Myocardial Infarction (AMI) Event Rate

DEFINITION: The probability of hospitalization or death due to AMI (also known as heart attack) among Winnipeg Regional Health Authority (the Region) residents aged 40 years and older. An AMI was defined by either:

- At least one hospitalization with an AMI for a length of stay ≥ 3 days or
- AMI listed as the cause of death in Vital Statistics files

NUMERATOR: The number of hospitalizations or deaths due to AMI in the Region's residents aged 40 years and over. A resident may experience more than one AMI event.

DENOMINATOR: All the Region's residents aged 40 years and over.

CALCULATION: Average annual rates were age- and sex-adjusted to the Manitoba population aged 40 years and older in the first time period (i.e., 1996/97-2000/01 Manitoba population as the standard population for 1996/97-2000/01 and 2001/02-2005/06; 2000-2006 Manitoba population as the standard population for 2000-2006 and 2007-2011). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2000-2006 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The acute myocardial infarction (AMI) event rate has declined from 5.3 events per 1,000 of the Region's residents in 1996/97-2000/01 to 3.8 events per 1,000 of the Region's residents in 2007-2011.
- AMI event rate varied across the Region, with the highest rate of events in Point Douglas South (6.7 events per 1,000 in 2007-2011) and lowest rate in St. Boniface East (2.8 events per 1,000 in 2007-2011)
- Low household income was associated with higher AMI event rates. The AMI event rate in the lowest income neighborhood cluster (NC), Point Douglas South, was almost 2.89 times higher than that in the highest income NC, River East North in 2002-2006. The gap between these two NC was smaller in 2007-2012. The lowest income communities had the highest AMI event rates.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

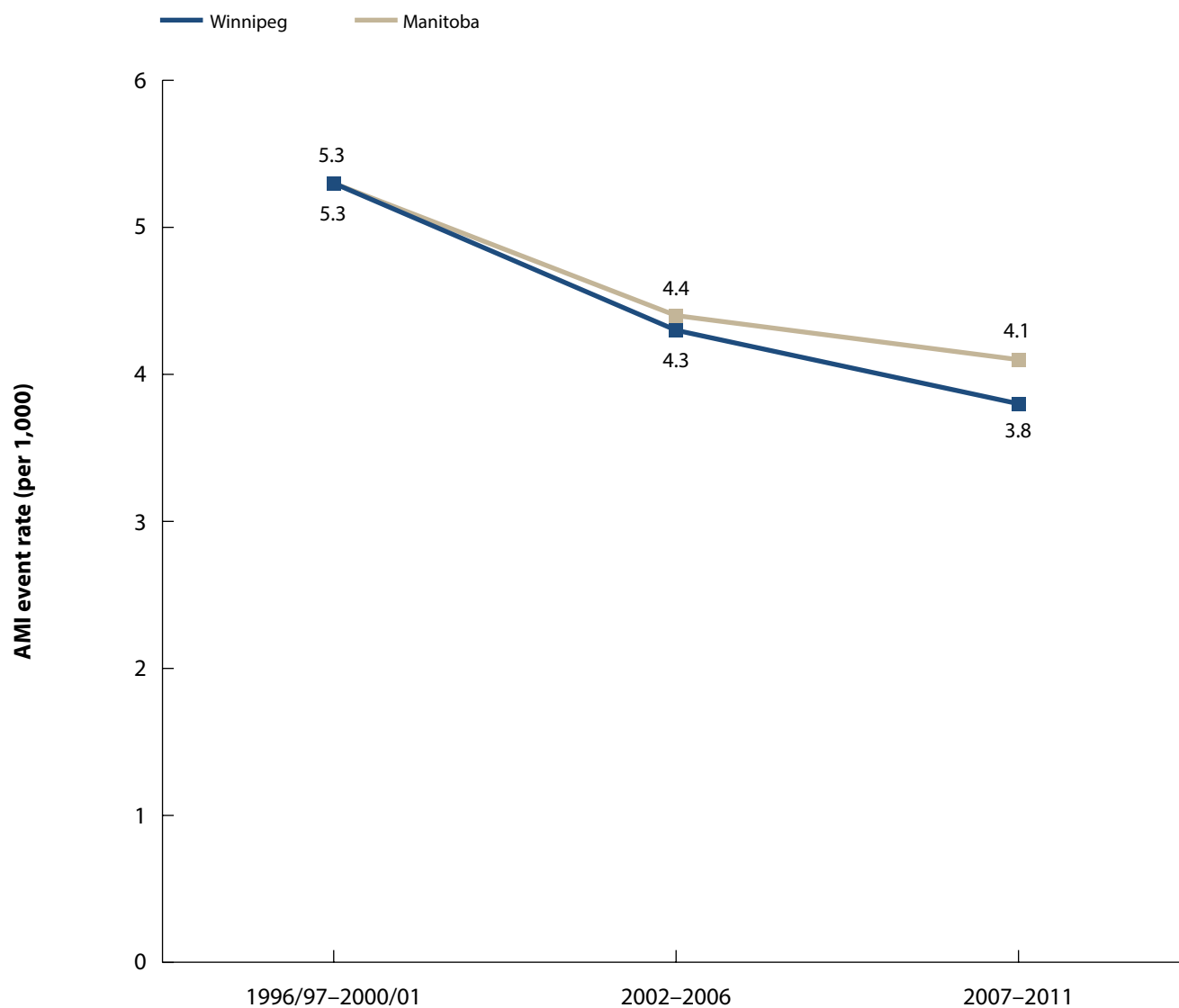
- AMI is one of the top causes of adult disability and death.
- This indicator includes AMI events resulting in hospitalization or death (i.e., non-diagnostic events, AMI hospitalization for <3 days, and in-hospital AMI events are excluded). While it provides useful information for AMI occurrence in communities, it under-reports AMI incidence in the communities.
- The decrease in AMI event rate may reflect the better prevention of ischemic heart disease (IHD) (i.e., lower IHD incidence, see (Appendix Figures and Tables 3.3.4.a and 3.3.4.b) and a better management of persons with IHD.
- In Canada, both hospitalization rate and death rate for AMIs have been declining since 1970s.¹

¹ Public Health Agency of Canada. *Tracking heart disease and stroke in Canada, 2009*. Ottawa, 2009. <http://www.phac-aspc.gc.ca/publicat/2009/cvd-avs/pdf/cvd-avs-2009-eng.pdf>

Figure A3.3.4.c1

Trends in Heart Attack (AMI) Event Rates in Winnipeg & Manitoba

Age- & sex-adjusted average annual rate of death or hospitalization for AMI per 1,000 residents aged 40+, 1996/97–2011

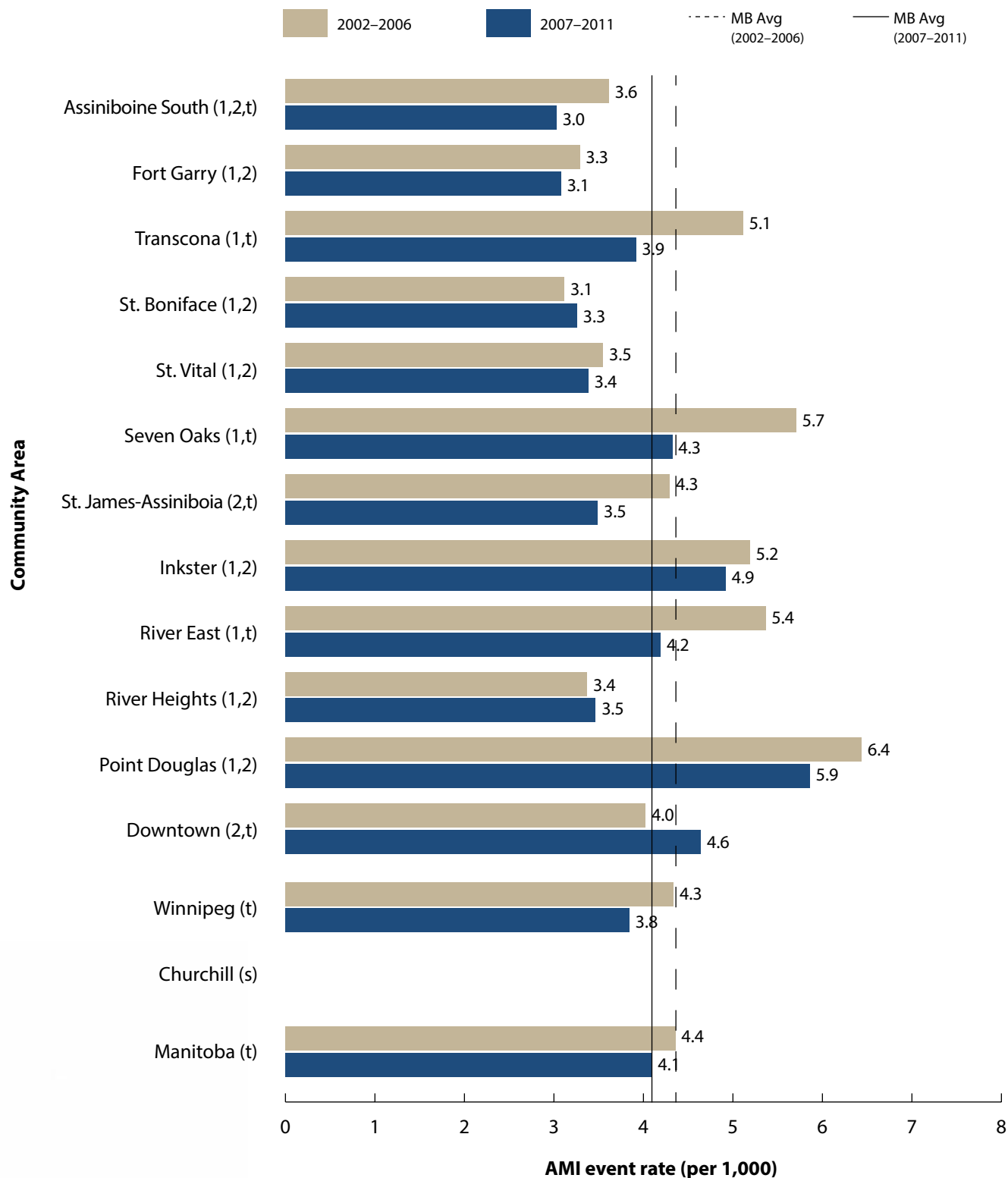


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.4.c2

Heart Attack (AMI) Event Rates by Winnipeg Community Area

Age- & sex-adjusted average annual rate of death or hospitalization for AMI per 1,000 residents aged 40+, 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

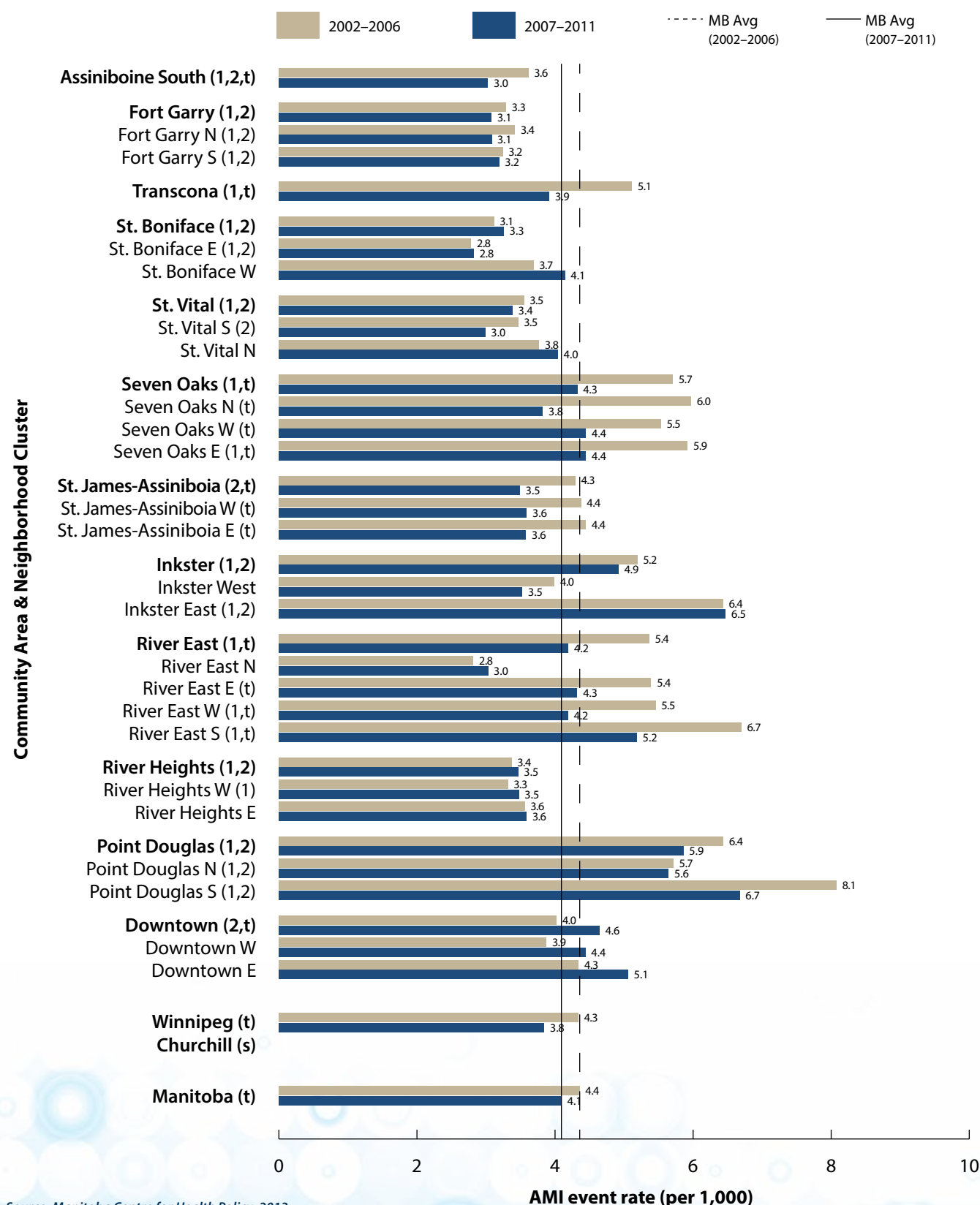
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.4.c3

Heart Attack (AMI) Event Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted average annual rate of death or hospitalization for AMI per 1,000 residents aged 40+, 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

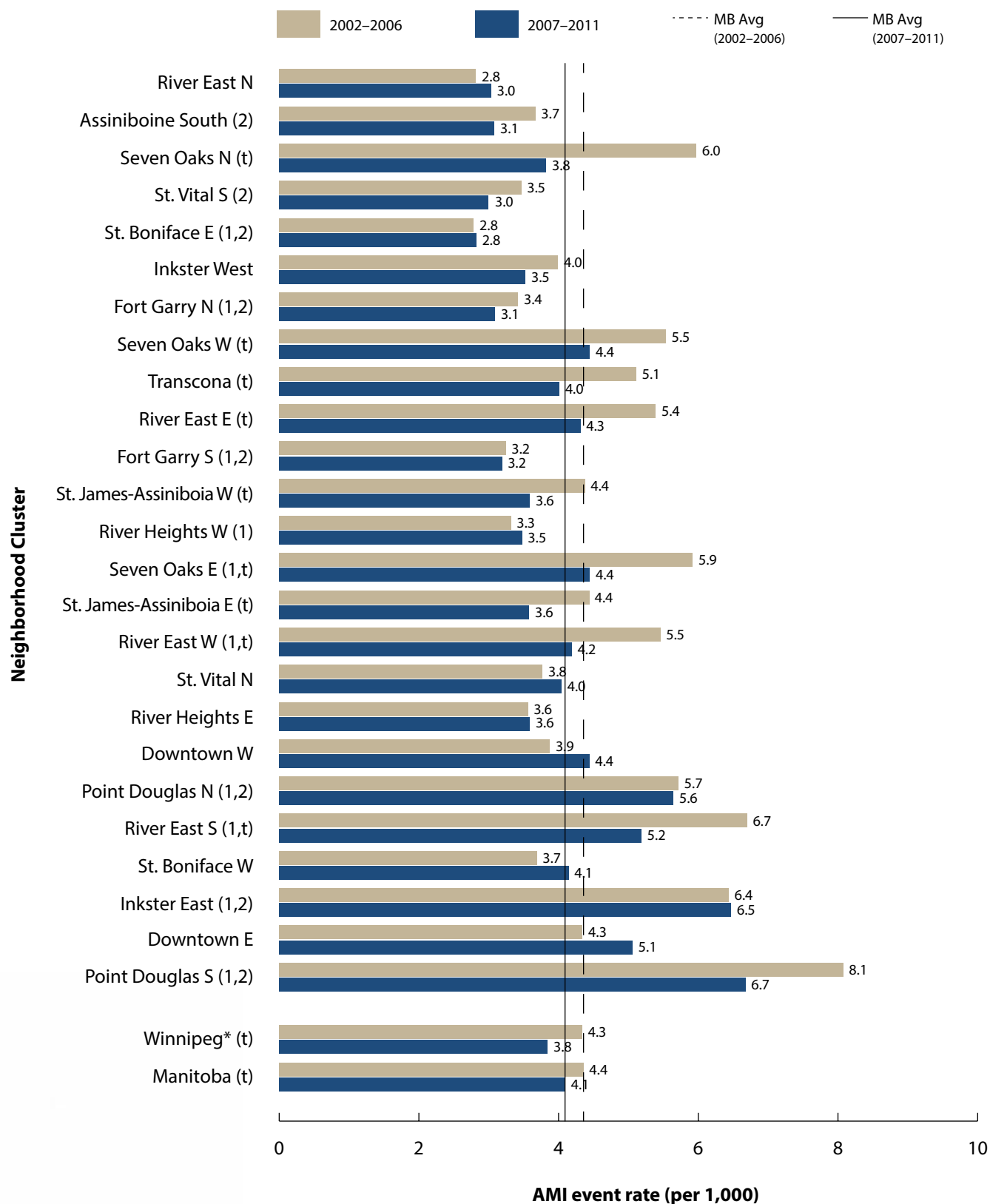
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.4.c4

Heart Attack (AMI) Event Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average annual rate of death or hospitalization for AMI per 1,000 residents aged 40+, 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

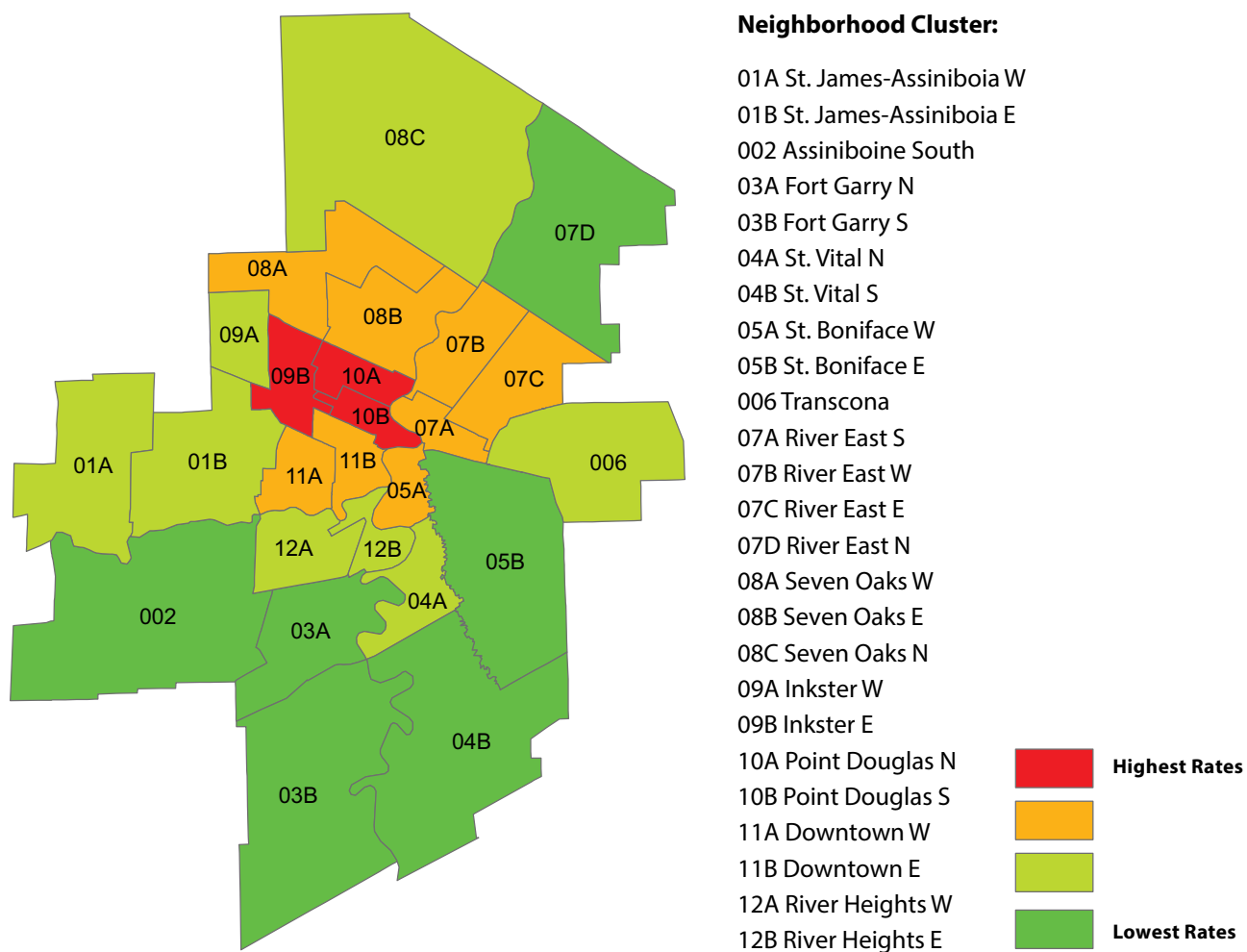
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Heart Attack (AMI) Event Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average annual rate of death or hospitalization for AMI per 1,000 residents aged 40+, 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.4.c1

Health Inequality in Acute Myocardial Infarction (AMI) Event Rates (events per 1,000 residents), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002–2006 Heart attack events per 1,000 residents aged 40 and older	2007–2011 Heart attack events per 1,000 residents aged 40 and older
Heart attack event (AMI) rate by <i>Neighborhood Cluster(NC)</i> <i>median household income</i>		
Highest income NC (River East N)	2.8 events	3.0 events
Lowest income NC (Point Douglas S)	8.1 events	6.7 events
Absolute difference (Lowest income NC - Highest income NC)	5.3 events	3.7 events
Ratio (Lowest income NC / Highest income NC)	2.89	2.23
Heart attack event (AMI) rate by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	3.1 events	2.8 events
U4	3.6 events	3.1 events
U3	4.2 events	3.4 events
U2	4.7 events	4.2 events
Lowest Urban Income Quintile (U1)	5.1 events	5.0 events
Absolute difference (U1-U5)	2.0 events	2.2 events
Ratio (U1/U5)	1.65	1.79

Source: Manitoba Centre for Health Policy, 2013



Indicator: Stroke Event Rate

DEFINITION: The number of hospitalizations or deaths due to stroke, expressed as an event rate per 1,000 Winnipeg Regional Health Authority (the Region) residents aged 40 years and older during two 5-year periods. Stroke was defined either by:

- at least one hospitalization with an intracerebral hemorrhage, cerebral infarction, or stroke (not specified as hemorrhage or infarction), or
- a cause (conditions defined above) of death in Vital Statistics files.

NUMERATOR: The average number of hospitalized for or dead from stroke cases in the Region's residents aged 40 years and over in a given year.

DENOMINATOR: The average number of the Region's residents aged 40 and over as of December 31 of the given year.

CALCULATION: Average annual rate was calculated and was age- and sex-adjusted to the Manitoba population aged 40 years and older in the first time period (i.e., 2002-2006 Manitoba population as the standard population for 2002-2006 and 2007-2011; 1996/97-2000/01 Manitoba population as the standard population for 1996/97-2000/01 and 2001/02-2005/06). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2002/03-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The stroke event rate in the Region decreased from 3.7 events per 1,000 residents aged 40 years and over in 1996-2000 to 2.6 events in 2002-06 and has stabilized since.
- Stroke event rates vary across the Region, with the highest event rate in Point Douglas South (5.4 events per 1,000 residents) and the lowest event rates in St. Boniface East, River East North, Fort Garry South, and St. Vital North (2.1 events per 1,000 residents).
- The Region's residents aged 40 years and over and living in low household income communities were more likely to be hospitalized for or die from stroke. In 2007-2011, the rate for the lowest income neighborhood cluster (NC) was 2.57 times than that for the highest income NC; and the rate for those in the lowest income quintile was 1.67 times than that for those the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

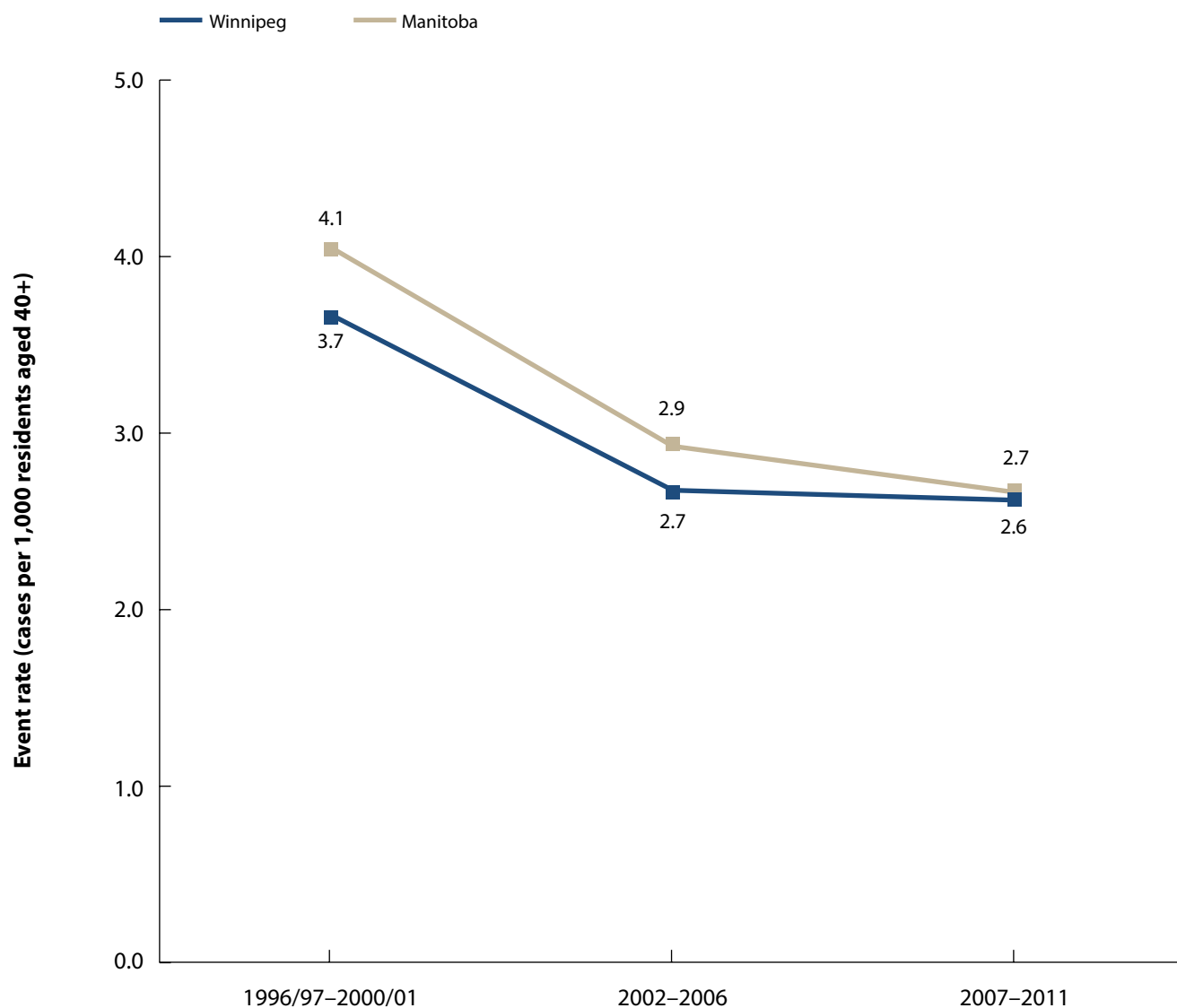
- Stroke is one of the top causes of adult disability and death.
- The stroke event indicator includes only hospitalized cases or deaths and, therefore, the actual rate is unknown.
- In Canada, both hospitalizations and deaths due to stroke have been decreasing since 1970s.¹ The rate of death due to stroke in Manitoba was slightly higher than the Canadian average during the period of 2000-2004.

¹ Public Health Agency of Canada. *Tracking heart disease and stroke in Canada*. Ottawa, 2009.

Figure A3.3.4.d1

Trends in Stroke Event Rates in Winnipeg & Manitoba

Age- & sex-adjusted annual rate of death or hospitalization for stroke (cases per 1,000 residents aged 40+), 1996/97–2011

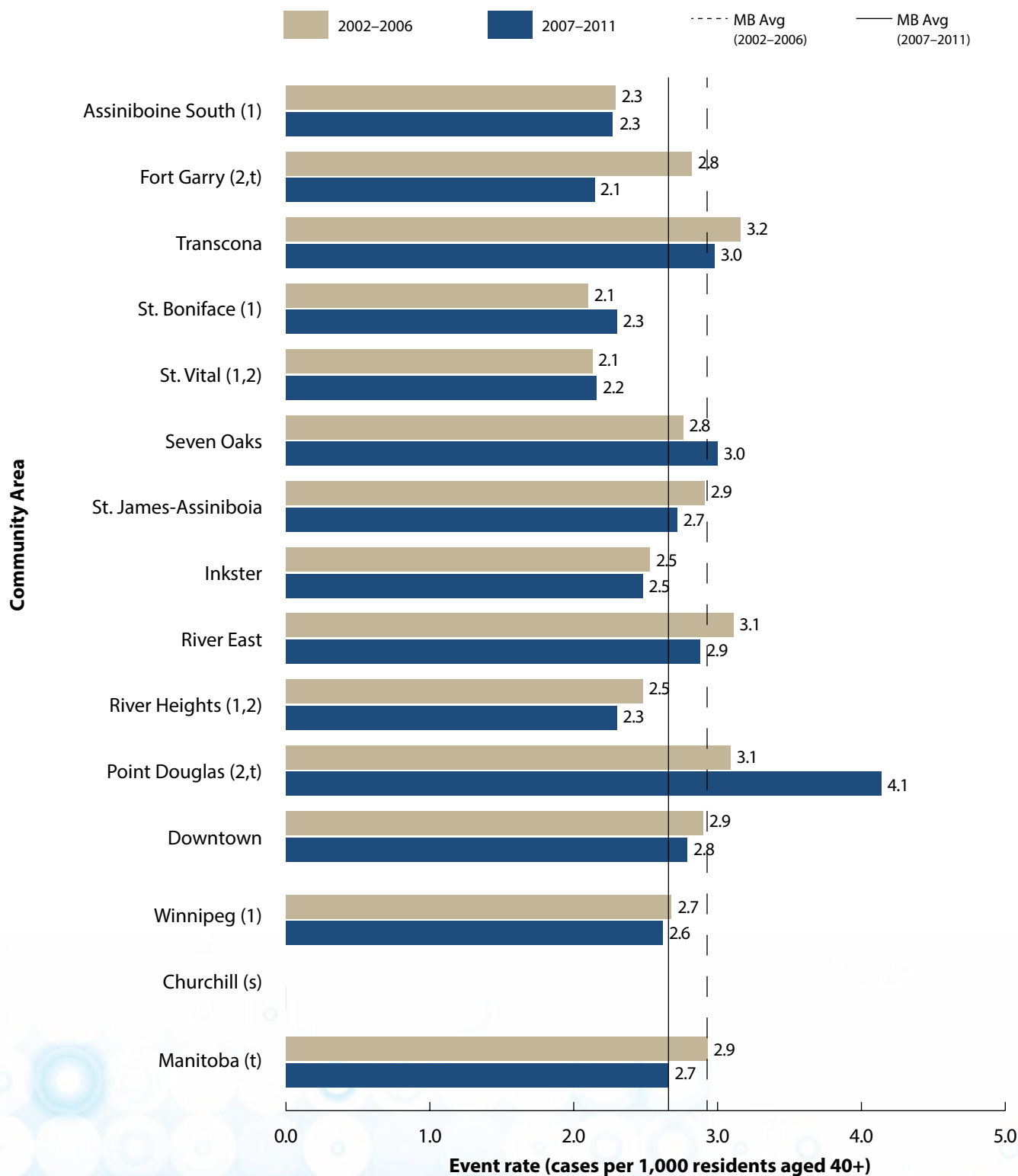


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.4.d2

Stroke Event Rates by Winnipeg Community Area

Age- & sex-adjusted annual rate of death or hospitalization for stroke (cases per 1,000 residents aged 40+),
2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

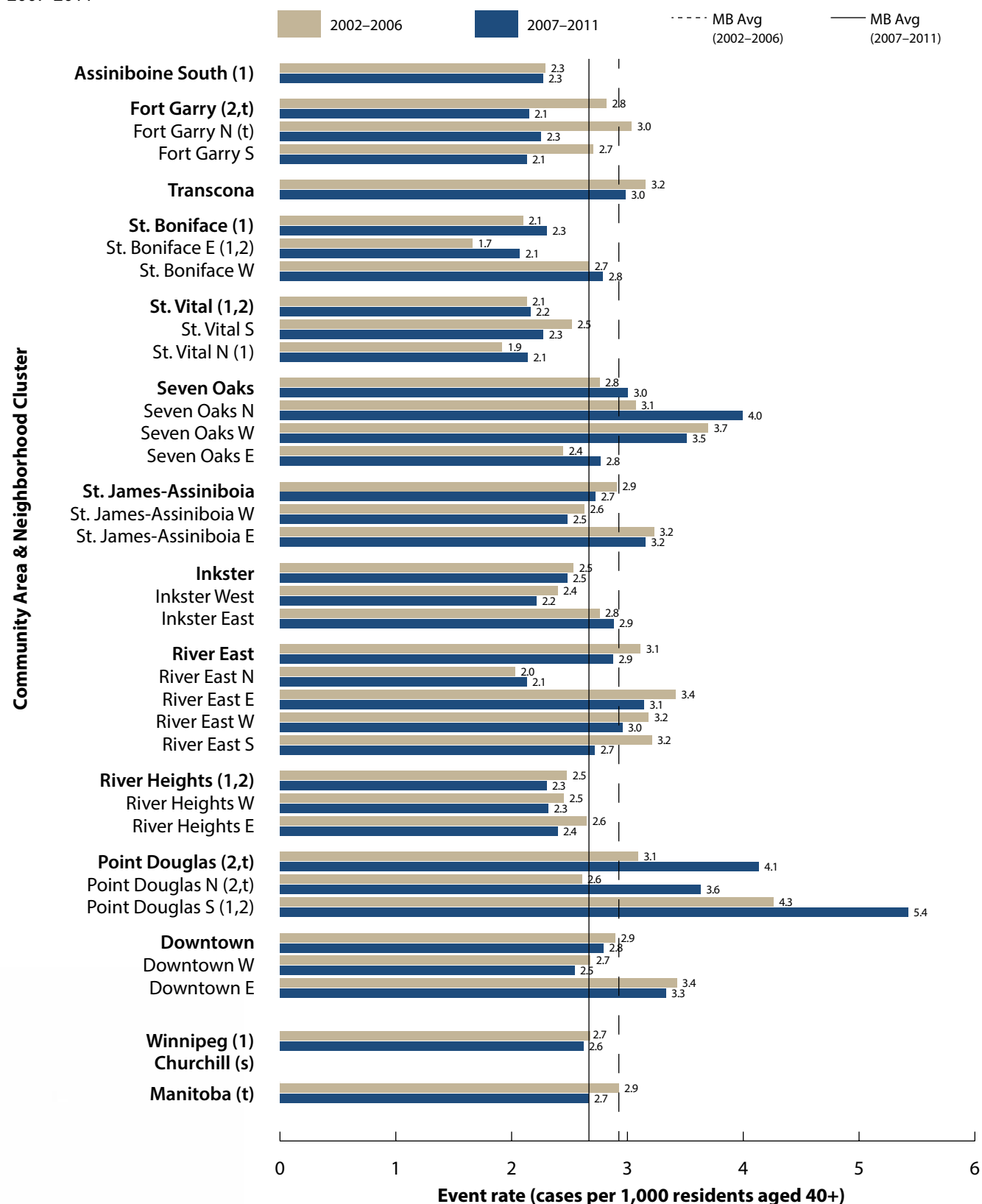
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.4.d3

Stroke Event Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted annual rate of death or hospitalization for stroke (cases per 1,000 residents aged 40+), 2002-2006 & 2007-2011



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

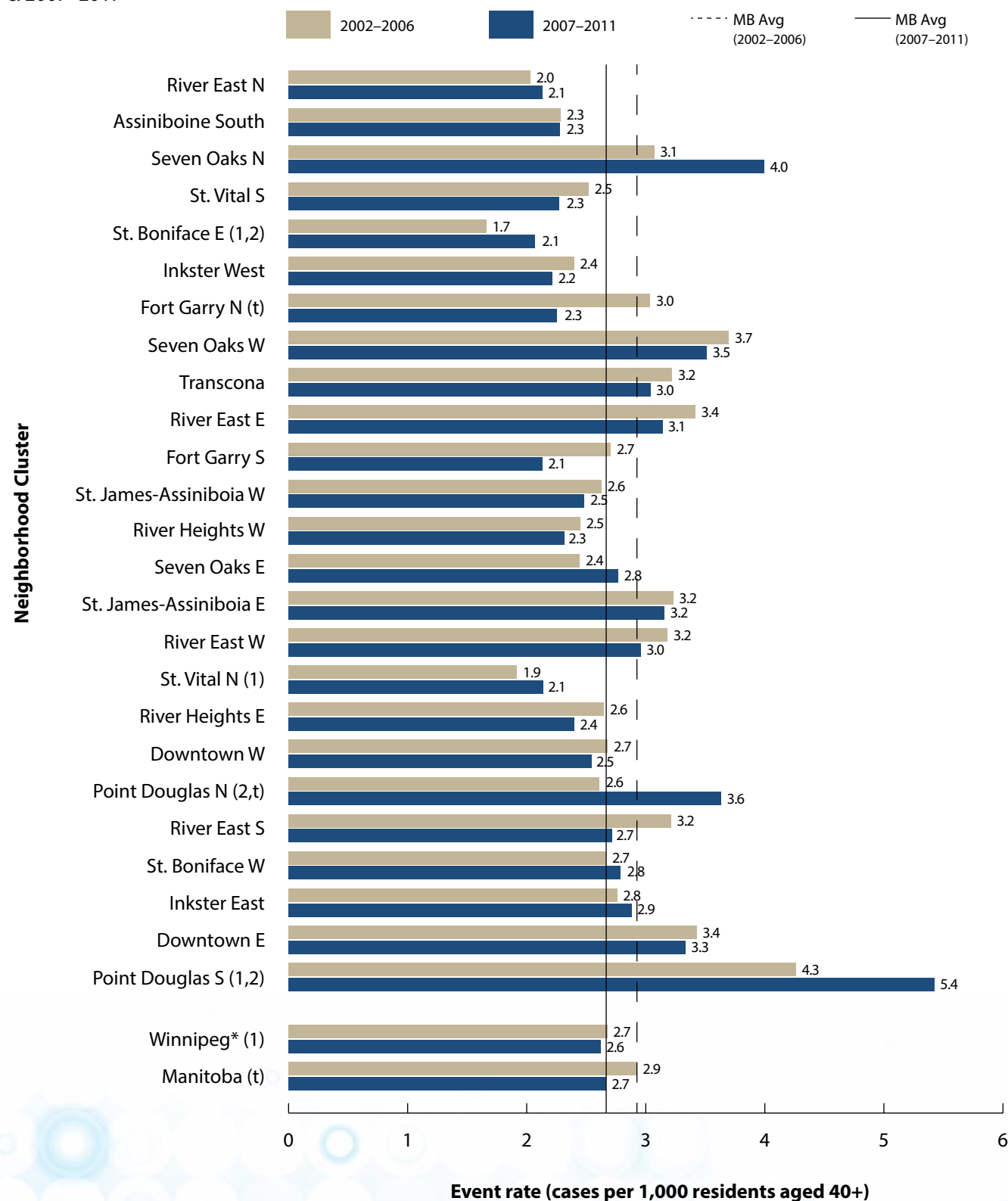
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.4.d4

Stroke Event Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted annual rate of death or hospitalization for stroke (cases per 1,000 residents aged 40+), 2002–2006 & 2007–2011



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

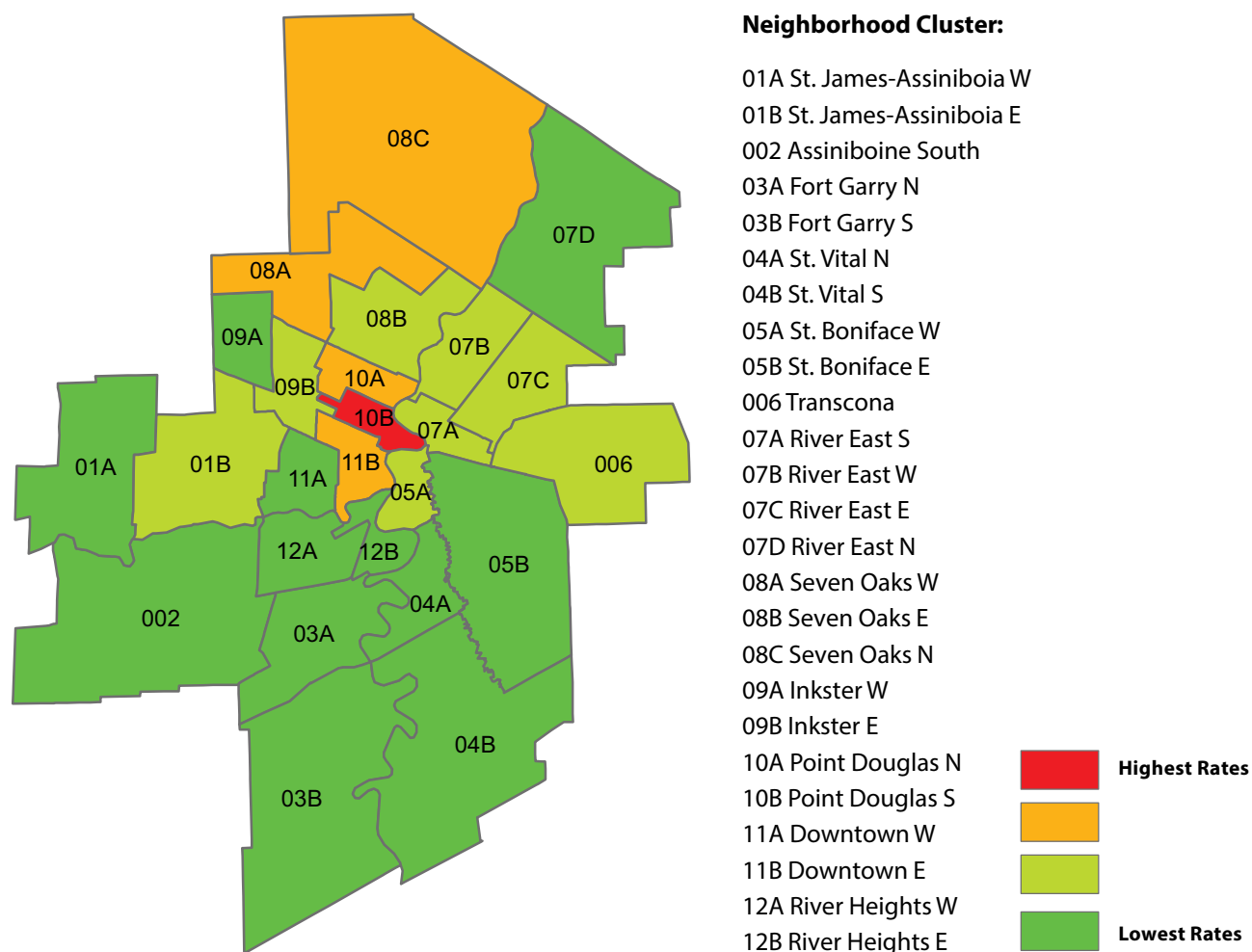
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Stroke Event Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted annual rate of death or hospitalization for stroke (cases per 1,000 residents aged 40+), 2007–2011



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.4.d1

Health Inequality in Stroke Event Rates (events per 1,000 resident age 40 and over), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002–2006 events per 1,000 residents aged 40+	2007–2011 events per 1,000 residents aged 40+
Stroke event rate <i>by Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	2.0 events	2.1 events
Lowest income NC (Point Douglas S)	4.3 events	5.4 events
Absolute difference (Lowest income NC – Highest income NC)	2.3 events	3.3 events
Ratio (Lowest income NC / Highest income NC)	2.15	2.57
Stroke event rate <i>by Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	1.9 events	1.8 events
U4	2.1 events	2.0 events
U3	2.2 events	2.4 events
U2	2.5 events	2.4 events
Lowest Urban Income Quintile (U1)	3.2 events	3.0 events
Absolute difference (U1-U5)	1.3 events	1.2 events
Ratio (U1/U5)	1.68	1.67

Source: Manitoba Centre for Health Policy, 2013



Indicator: Cancer Incidence

DEFINITION: A cancer incidence rate is the number of new cases of a specific cancer site or cancer type occurring in a specified population during a specified period of time (e.g., 1-year, 2-year span), usually expressed as the number of cancer cases per 100,000 persons at risk. Invasive cancers are those coded as C00-C97 with invasive morphology (excluding nonmelanoma skin cancers) in ICD-Oncology Version 3. In general, the incidence rate would not include recurrences.

NUMERATOR: Number of new cases of cancer diagnosed in Winnipeg Regional Health Authority (the Region) residents in a given year.

DENOMINATOR: Number of persons at risk of a cancer diagnosis in the Region in the given year.

CALCULATION: $(\text{Number of new cases diagnosed} / \text{Number of persons at risk in a given year}) \times 100,000$. The population used depends on the rate to be calculated. For cancer sites that occur in only one sex, the sex-specific population (e.g., females for cervical cancer) is used. Rates are age-standardized (using the direct method) to the 2001 Manitoba population.

DATA SOURCES: Manitoba Cancer Registry, 2008-2010 & 2005-2009

KEY FINDINGS:

- From 2008 to 2010, age-standardized overall invasive cancer incidence rate was 475.7 cases per 100,000 residents at risk in the Region. The rate has been stable over the past 5 years.
- Breast (female), prostate, lung, and colorectal are the most frequent sites of newly diagnosed cancers, with incidences of 127.9, 117.4, 67.9, and 65.2 cases per 100,000 persons at risk in the Region, respectively, from 2008 to 2010.

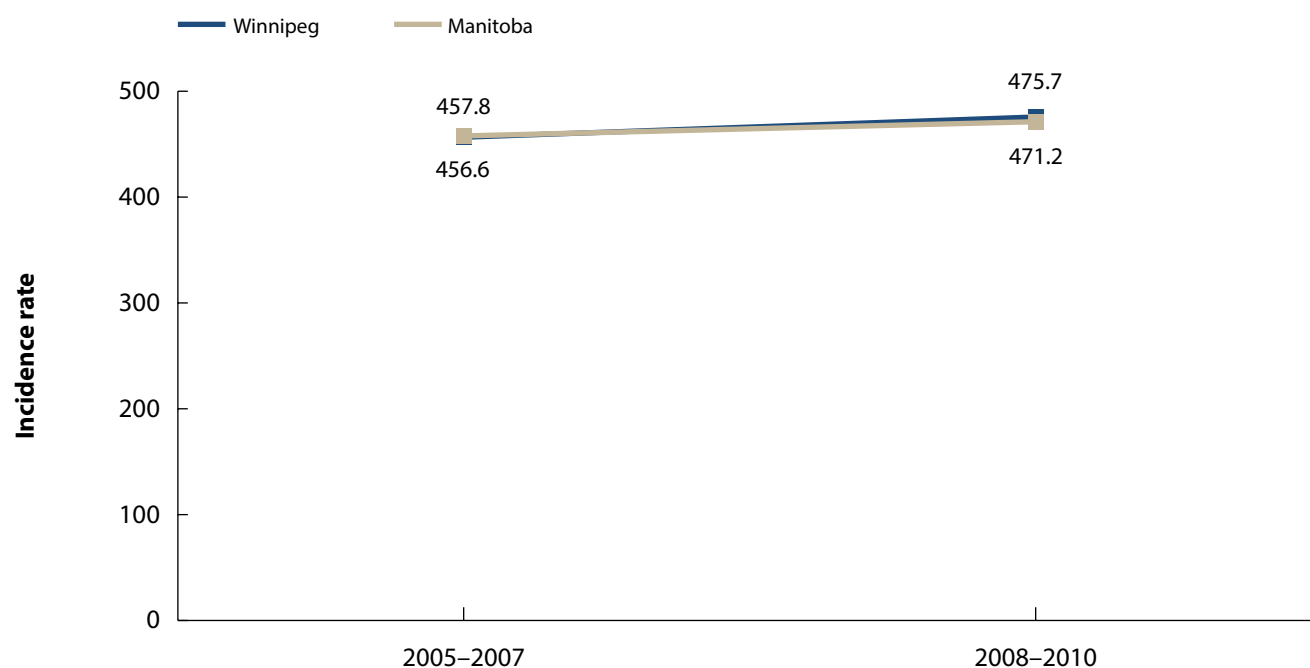
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Cancer as the number one cause accounts for nearly 40% of premature deaths in the Region.
- Both genetics and environmental factors (e.g., tobacco, diet, alcohol, and behaviors) contribute to cancer incidence risk.

Figure A3.3.5.a1

Trends in All Invasive Cancer Incidence Rates in Winnipeg & Manitoba

Age-standardized incidence rate (cases per 100,000 persons), 2005–2007 & 2008–2010



Sources: Manitoba Cancer Registry, 2002–2007 & 2008–2010

Table A3.3.5.a1

Cancer Incidence Rates (cases per 100,000) by Site in Winnipeg & Manitoba

Age-standardized incidence rate (cases per 100,000 persons), 2005–2007 & 2008–2010

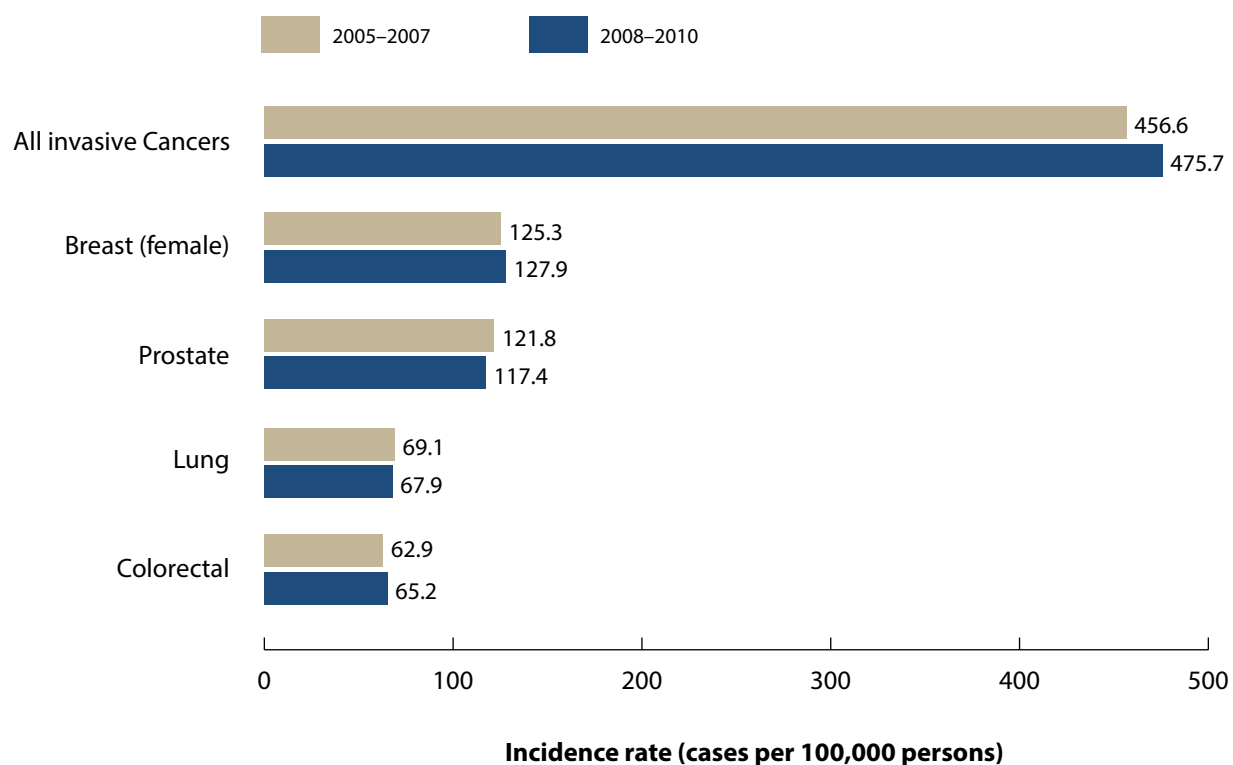
CANCER TYPE	2005–2007 CASES PER 100,000		2008–2010 CASES PER 100,000	
	Winnipeg	Manitoba	Winnipeg	Manitoba
All invasive cancer	456.6	457.8	475.7	471.2
Breast (female)	125.3	121.3	127.9	122.6
Prostate	121.8	117.9	117.4	116.4
Lung	69.1	68.8	67.9	68.8
Colorectal	62.9	64.4	65.2	68.3

Sources: Manitoba Cancer Registry, 2005–2007 & 2008–2010

Figure A3.3.5.a2

Cancer Incidence Rates by Site in Winnipeg

Age-standardized incidence rate (cases per 100,000 persons), 2005–2007 & 2008–2010



Source: Manitoba Cancer Registry, 2005–2007 & 2008–2010



Indicator: Dementia Prevalence

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents aged 55 years and older with dementia defined as:

- at least one hospitalization with a diagnosis for dementia, including organic psychotic conditions, cerebral degenerations, and senility, or
- at least one physician visit with a diagnosis for dementia.

NUMERATOR: The number of the Region's residents aged 55 years and older with a diagnosis for dementia.

DENOMINATOR: The number of the Region's residents aged 55 years and older.

CALCULATION: Value was calculated and was age- and sex-adjusted to the Manitoba population aged 55 years and older in the first time period (i.e., 2002/03-2006/07 Manitoba population as the standard population for 2002/03-2006/07 and 2007/08-2011/12; 1996/97-2000/01 Manitoba population as the standard population for 1996/97-2000/01 and 2001/02-2005/06). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2002/03-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- One in ten of the Region's residents aged 55 and older live with dementia. The prevalence has been stable over time.
- There was a significant geographic variation in dementia prevalence across the Region. Prevalence in Seven Oaks North (19.6% in 2007/08-2011/12) and Point Douglas South (19.3% in 2007/08-2011/12) was almost twice as high as the overall prevalence in Winnipeg (10.9%).
- The prevalence in the lowest neighborhood cluster (NC) – Point Douglas S – was more than double that in the highest income NC (River North East). The Region's residents in lower income quintile areas were more likely to be living with dementia.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

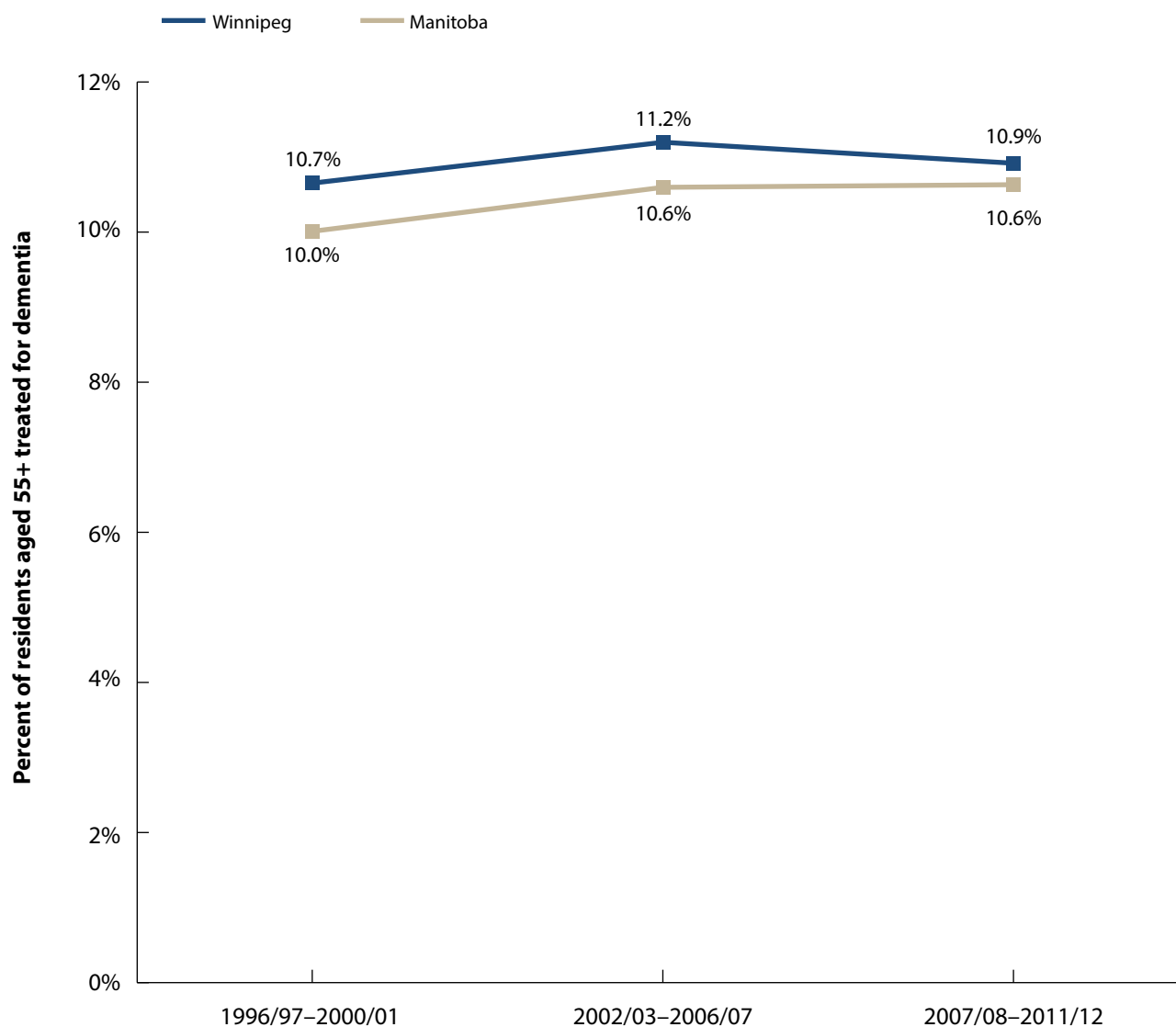
- Dementia is a syndrome that reflects a number of progressive disorders that affect memory, thinking, behavior and the ability to perform everyday activities. Alzheimer's disease is the most common type of dementia and accounts for 50% of new dementia diagnoses each year for Canadians (65+).
- In 2008, nearly a half million Canadians (1.5% of the population, all ages) were living with dementia; by 2038, more than 1 million (2.8% of the Canadian population) will have dementia.¹

¹ Alzheimer Society of Canada. *Rising Tide: The Impact of Dementia on Canadian Society*. Toronto, 2010.

Figure A3.3.6.a1

Trends in Dementia Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 55+ treated for dementia, 1996/97–2011/12

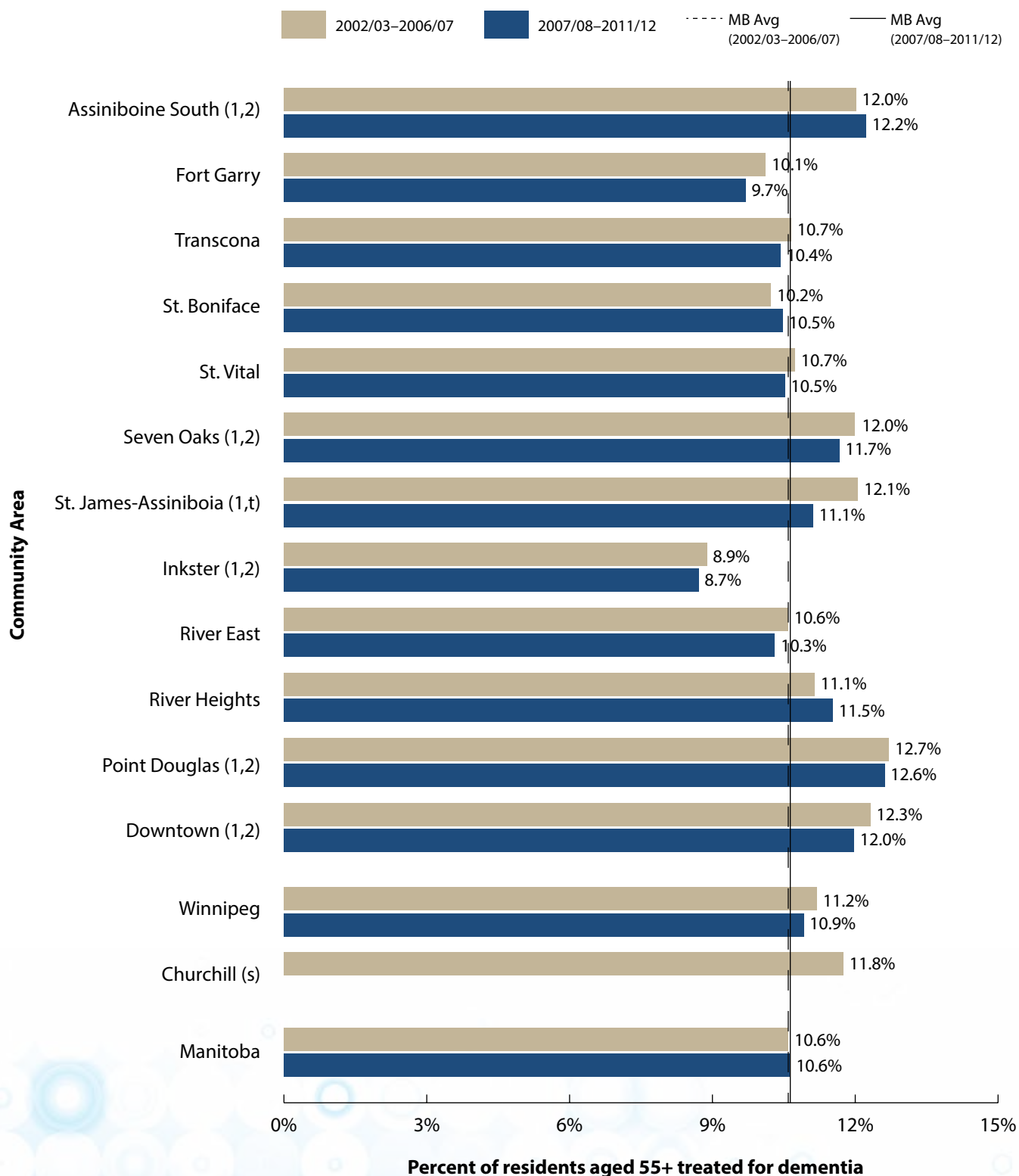


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.6.a2

Dementia Prevalence (age 55+) by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 55+ treated for dementia, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

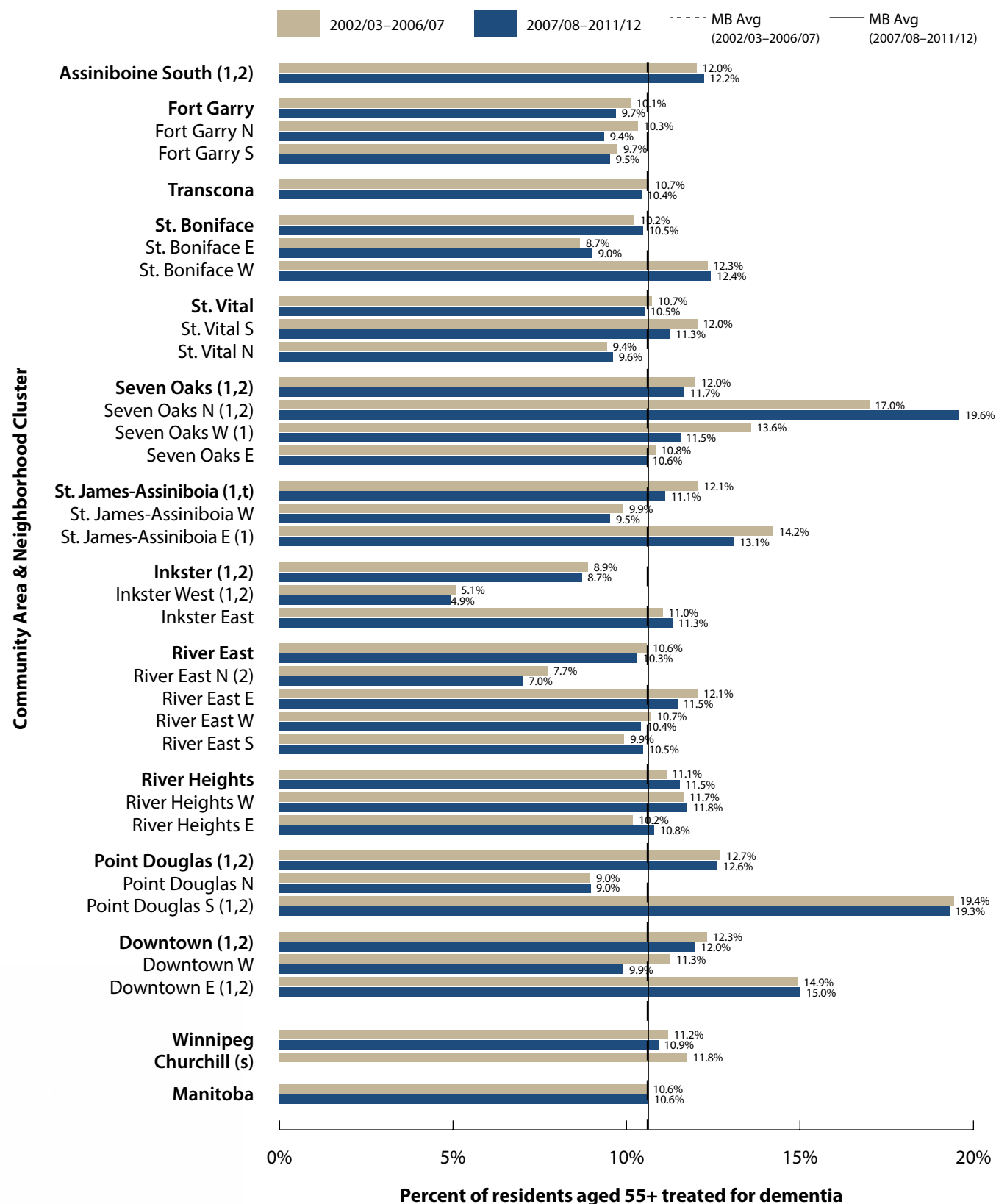
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.6.a3

Dementia Prevalence (age 55+) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 55+ treated for dementia, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

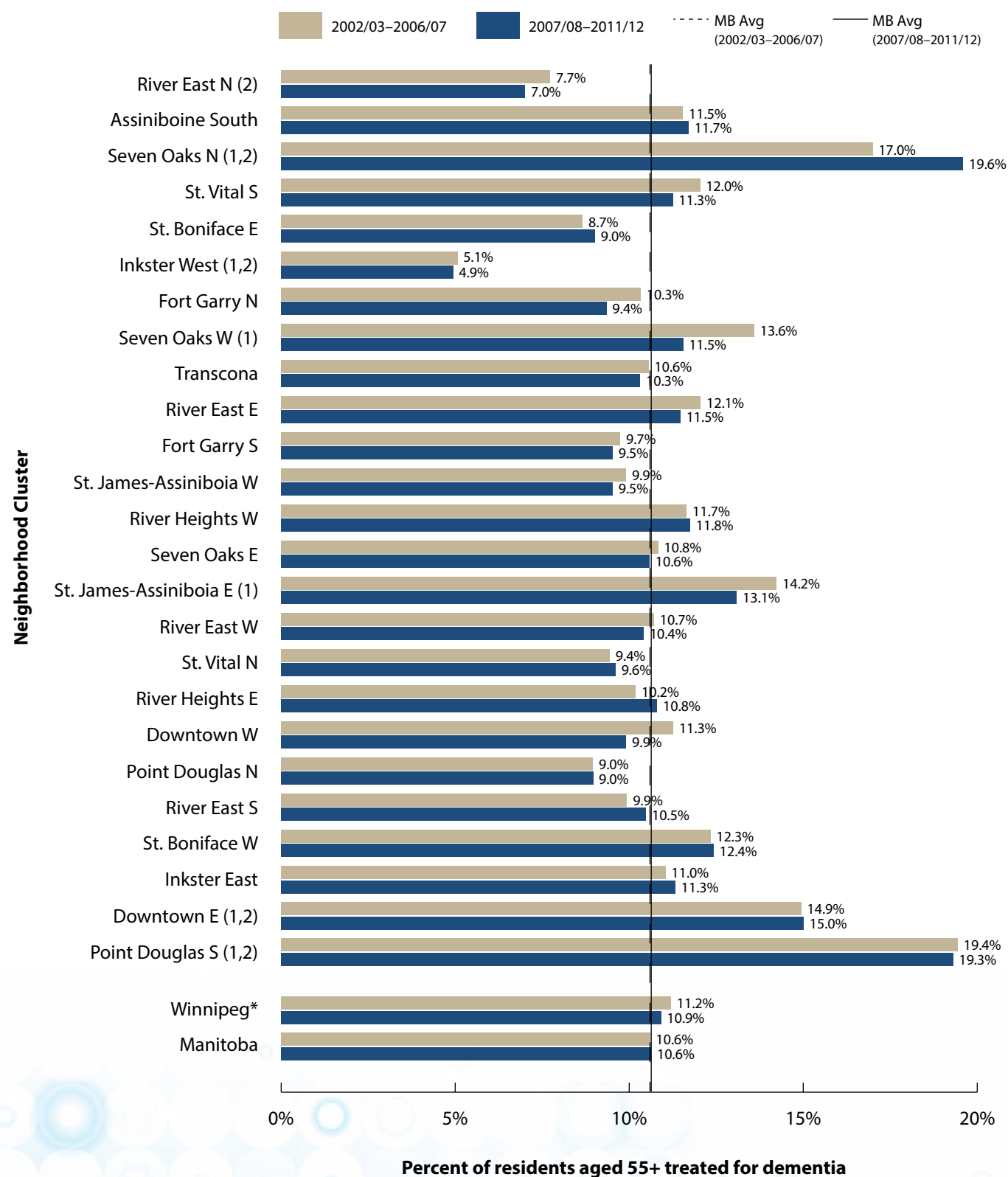
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A3.3.6.a4

Dementia Prevalence (age 55+) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 55+ treated for dementia, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

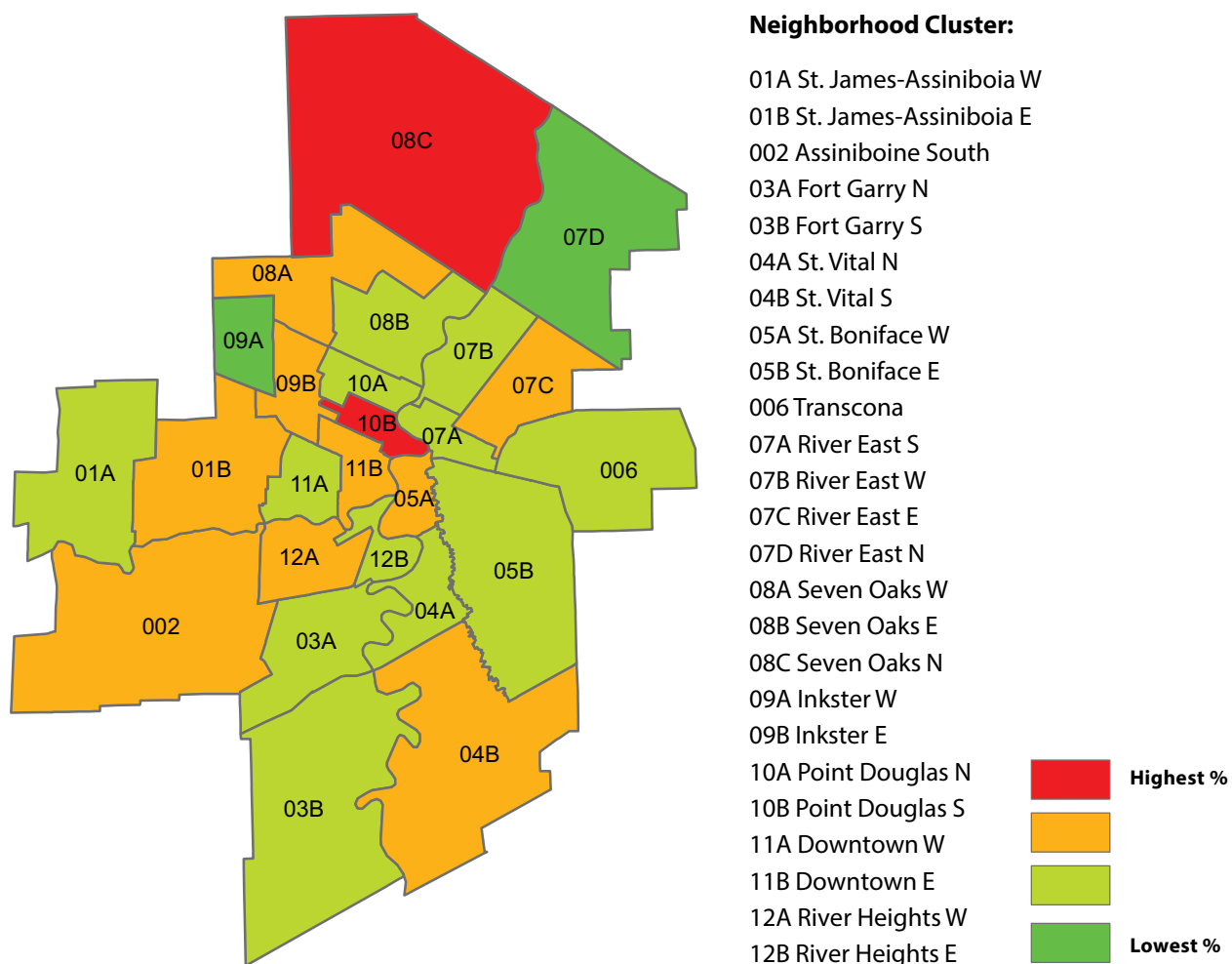
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Dementia Prevalence (age 55+) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 55+ treated for dementia, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.6.a1

Health Inequality in Dementia Prevalence (% residents age 55 and older), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03-2006/07 % residents over age 55 treated for dementia	2007/08-2011/12 % residents over age 55 treated for dementia
Prevalence of dementia (%) <i>by Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	7.7%	7.0%
Lowest income NC (Point Douglas S)	19.4%	19.3%
Absolute difference (Lowest income NC – Highest income NC)	11.7%	12.3%
Ratio (Lowest income NC / Highest income NC)	2.52	2.76
Prevalence of dementia (%) <i>by Urban Income Quintile</i>	2002/03-2006/07 % residents over age 55 treated for dementia	2002/03-2006/07 % residents over age 55 treated for dementia
Highest Urban Income Quintile (U5)	8.5%	8.5%
U4	7.8%	8.1%
U3	8.2%	8.6%
U2	8.7%	8.7%
Lowest Urban Income Quintile (U1)	12.0%	11.7%
Absolute difference (U1-U5)	3.5%	3.2%
Ratio (U1/U5)	1.41	1.38

Source: Manitoba Centre for Health Policy, 2013



Indicator: Osteoporosis Prevalence

DEFINITION: The percentage of residents aged 50 years and older with osteoporosis in a three-year period as defined by either:

- at least one hospitalization or one physician visit with one of the following diagnoses: osteoporosis, hip fracture, spine fracture, humerus fracture, or wrist fracture or
- at least one prescription for osteoporosis medications

Fractures in hospital associated with a diagnosis code for major trauma are excluded.

NUMERATOR: The number of Winnipeg Regional Health Authority (the Region) residents aged 50 years and older treated for osteoporosis (as defined above).

DENOMINATOR: The number of the Region's residents aged 50 years and older.

CALCULATION: Prevalence was age- and sex-adjusted to the Manitoba population aged 50 years and older in the first time period (i.e., 2004/05-2006/07 Manitoba population as the standard population for 2004/05-2006/07 and 2009/10-2011/12; 1998/99-2000/01 Manitoba population as the standard population for 1998/99-2000/01 and 2003/04-2005/06).

Note: 2003/04-2005/06 data is not reported in the trend chart as it overlaps with the 2004/05-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Higher osteoporosis prevalence was reported for 2004/05-2006/07 than for the two time periods before and after.
- During 2009/10-2011/12, 10.3% of adults aged 50 years and older in the Region and 14.3% of those in Churchill were treated for osteoporosis.
- Osteoporosis prevalence varied by community area or neighborhood cluster, but there was not a clear relationship with income.

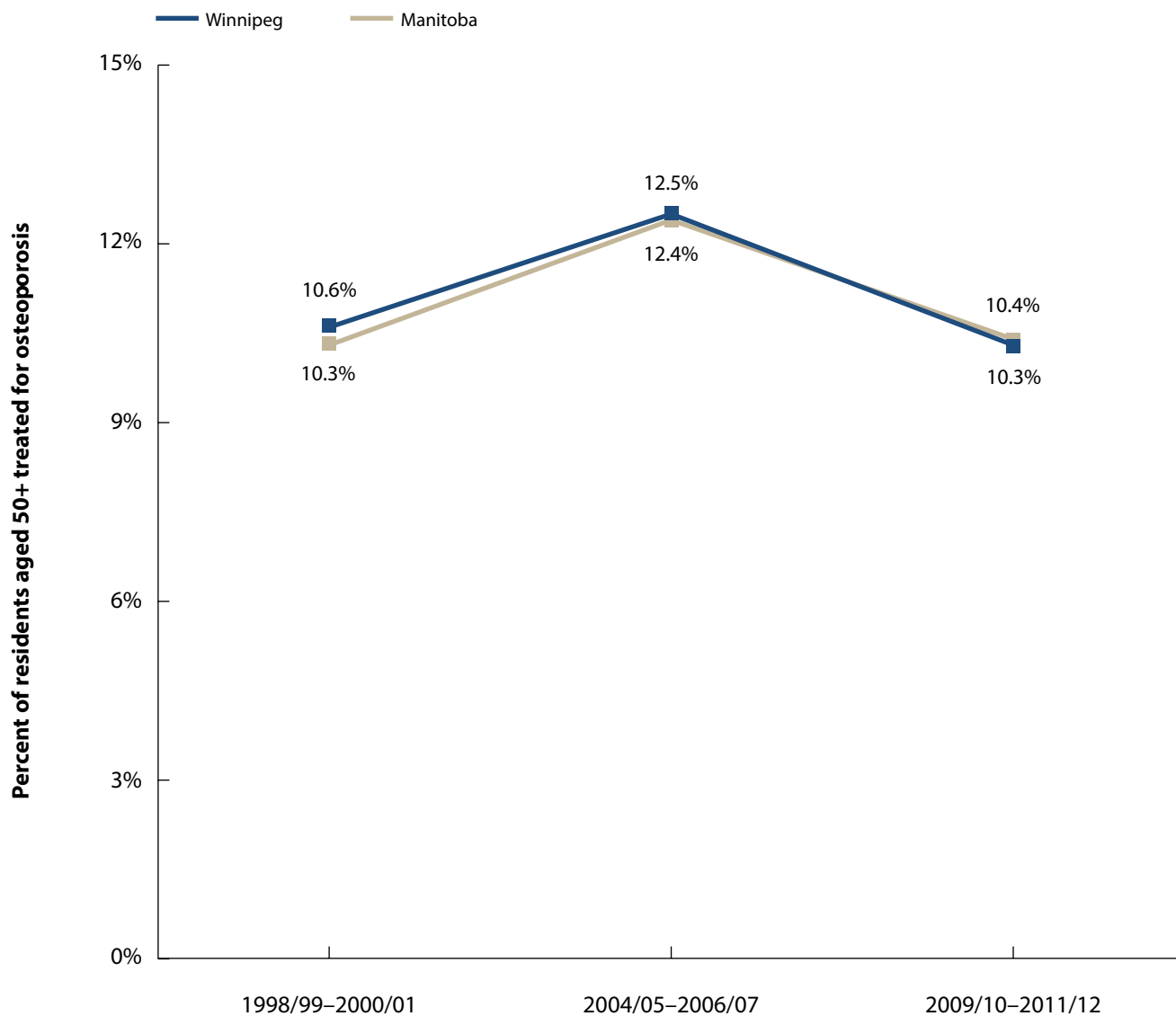
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Osteoporosis is a prevalent chronic disease and a public health concern: 1 in 3 women and 1 in 5 men will suffer from an osteoporotic fracture during their lifetime (<http://www.osteoporosis.ca/osteoporosis-and-you/osteoporosis-facts-and-statistics/>).
- The reason for the slightly higher prevalence during 2004/05-2006/07 is not well-understood.

Figure A3.3.7.a1

Trends in Osteoporosis Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 50+ treated for osteoporosis, 1998/99–2011/12

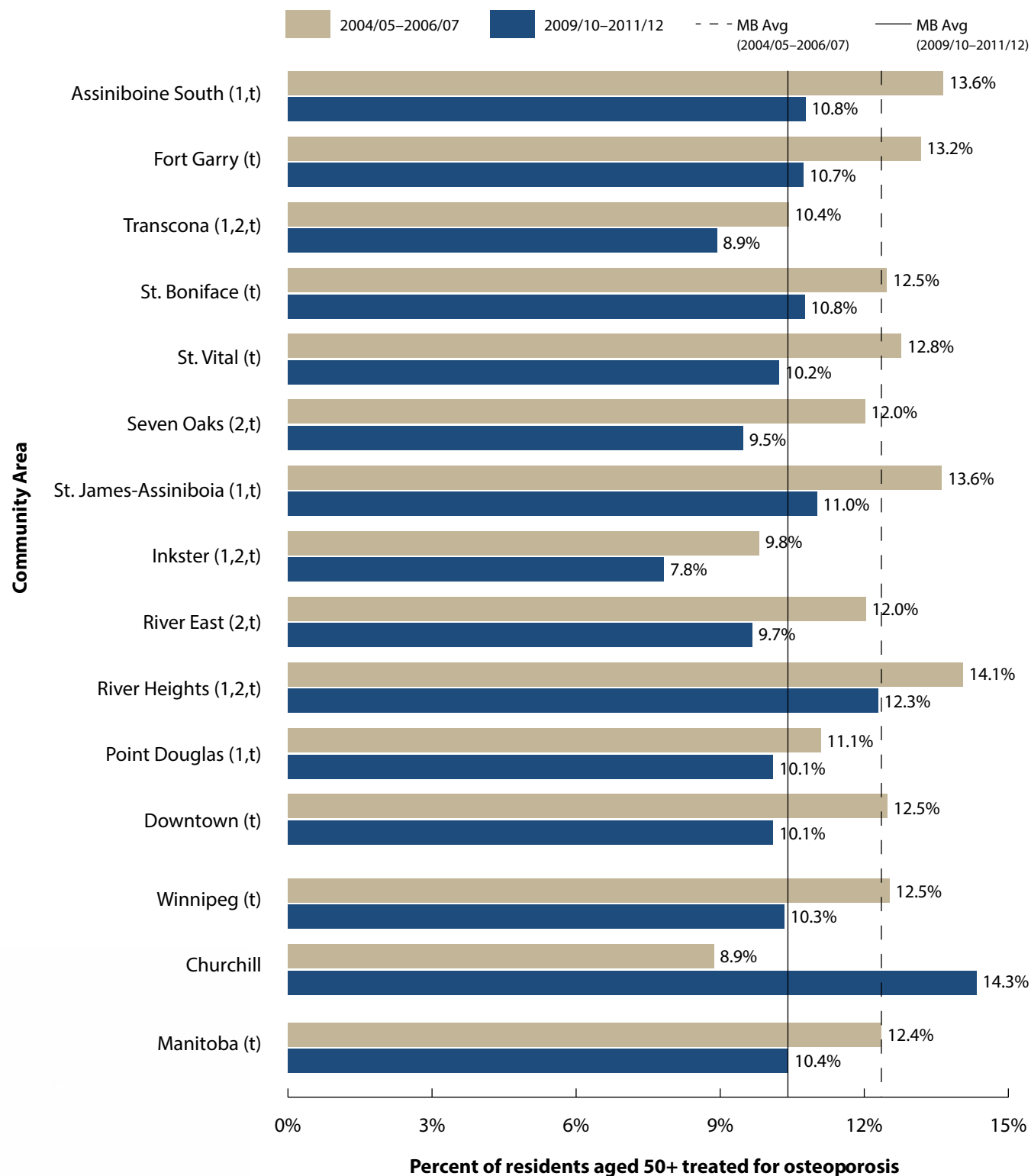


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.3.7.a2

Osteoporosis Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 50+ treated for osteoporosis, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

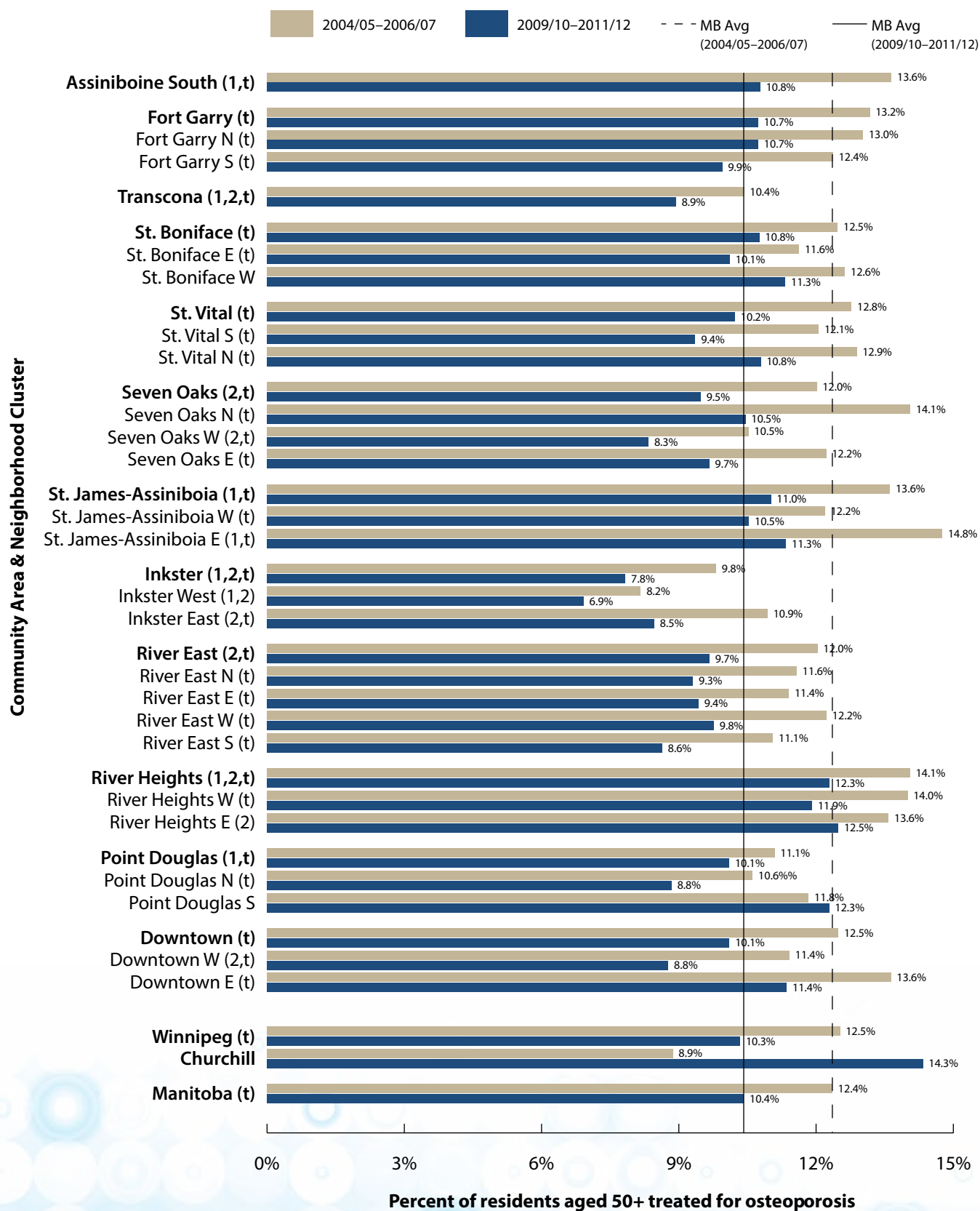
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.7.a3

Osteoporosis Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 50+ treated for osteoporosis, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

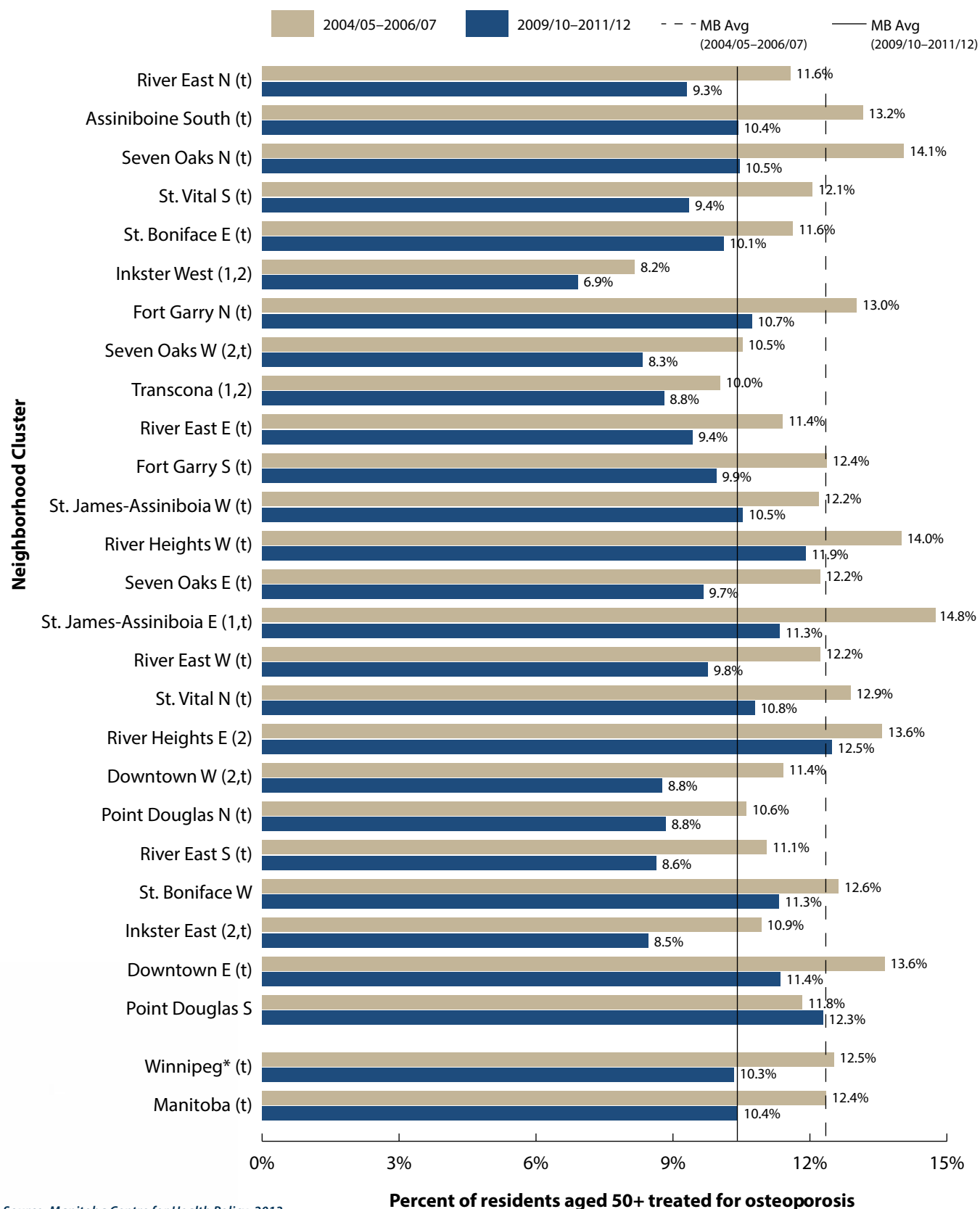
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.3.7.a4

Osteoporosis Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 50+ treated for osteoporosis, 2004/05–2006/07 & 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

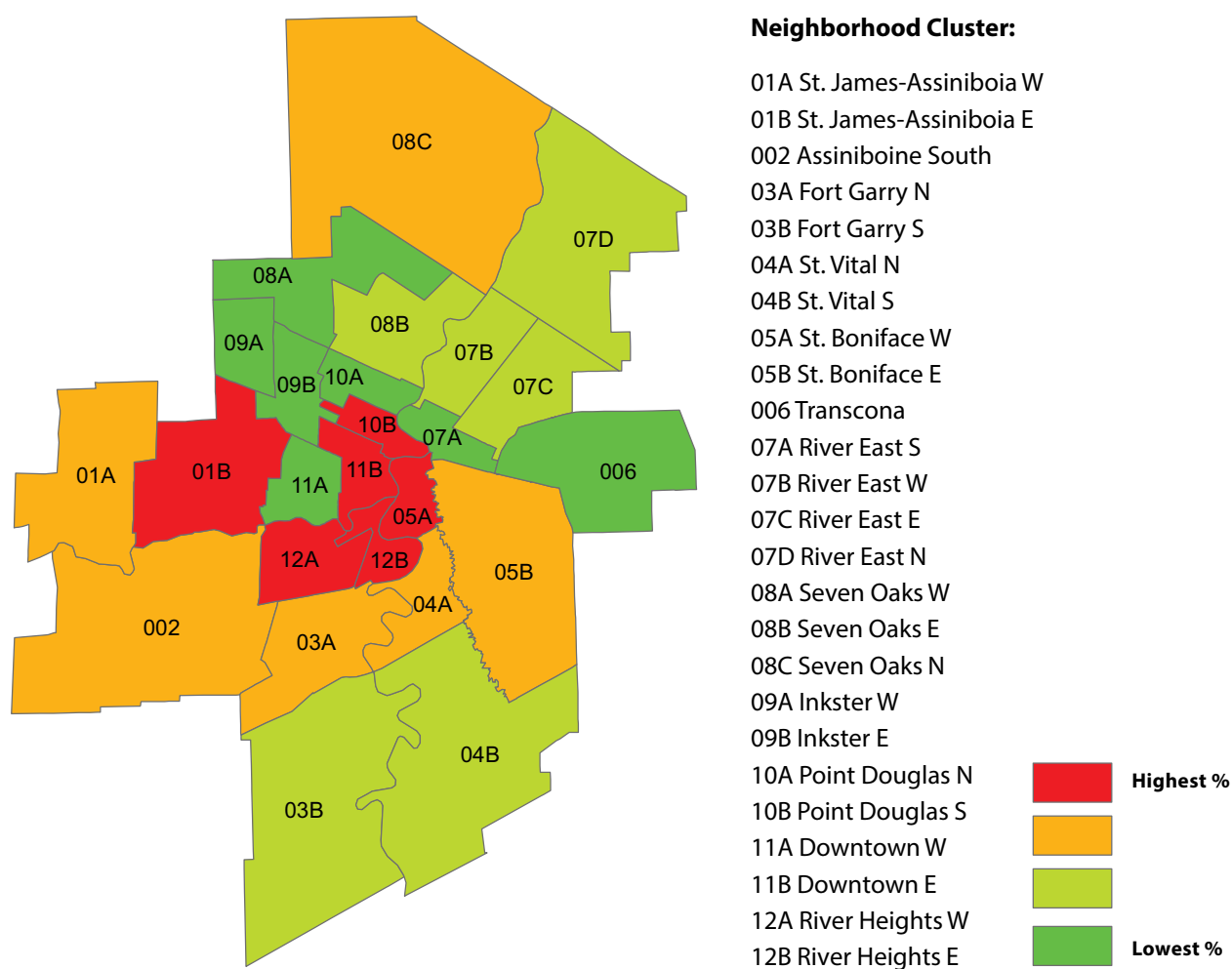
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Osteoporosis Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 50+ treated for osteoporosis, 2009/10–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.3.7.a1

Health Inequality in Osteoporosis Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2004/05–2006/07 % treated for osteoporosis	2009/10–2011/12 % treated for osteoporosis
Osteoporosis prevalence by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	11.6%	9.3%
Lowest income NC (Point Douglas S)	11.8%	12.3%
Absolute difference (Lowest income NC – Highest income NC)	0.2%	3%
Ratio (Lowest income NC / Highest income NC)	1.02	1.32
Osteoporosis prevalence by <i>Urban Income Quintile</i>	2004/05–2006/07 % treated for osteoporosis	2009/10–2011/12 % treated for osteoporosis
Highest Urban Income Quintile (U5)	12.9%	10.2%
U4	12.0%	9.9%
U3	12.3%	10.1%
U2	12.5%	10.2%
Lowest Urban Income Quintile (U1)	13.3%	11.5%
Absolute difference (U1-U5)	0.4%	1.3%
Ratio (U1/U5)	1.03	1.13

Source: Manitoba Centre for Health Policy, 2013

Indicator: Mood & Anxiety Disorders Prevalence

DEFINITION: The percentage of residents aged 10 years and older with mood and anxiety disorders in a 5-year period. Mood and anxiety disorders are defined as:

- at least one hospitalization for one of these disorders including depression, episodic mood disorders (bipolar disorder, manic episode), anxiety (anxiety disorders, phobic disorders, obsessive-compulsive disorders), or
- at least one physician visit with a diagnosis of depression or episodic mood disorders, or
- at least one or more hospitalizations or physician visits with a diagnosis of anxiety, dissociative, and somatoform disorders and one or more prescriptions for an antidepressant (i.e., fluoxetine, citalopram, desipramine, and venlafaxine), benzodiazepine derivatives anxiolytics (i.e., diazepam), or lithium (an antipsychotic), or
- three or more physician visits with a diagnosis of anxiety, dissociative, and somatoform disorders or adjustment reaction.

NUMERATOR: The number of Winnipeg Regional Health Authority (the Region) residents aged 10 years and older with a diagnosis for a mood/anxiety disorder.

DENOMINATOR: The number of the Region's residents aged 10 years and older.

CALCULATION: Prevalence was calculated and age- and sex-adjusted to the Manitoba population aged 10 years and older in the first time period (i.e., 2002/03-2006/07 Manitoba population as the standard population for 2002/03-2006/06 and 2007/08-2011/12).

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- Mood and anxiety disorder prevalence was stable over the two time periods reported on.
- There was significant variation in this rate across the Region: neighborhood clusters (NC) Point Douglas South (32.0% in 2007/08-2011/12) and NC Downtown East (29.0% in 2007/08-2011/12) had the highest prevalence; NC Inkster West had the lowest prevalence of mood and anxiety disorders (14.5% in 2007/08-2011/12).
- Residents living in low income communities were more likely to be treated for mood/anxiety disorders. In 2007/08-2011/12, the prevalence in the lowest income NC was 67% higher than that in the highest income NC; and, in 2007/08-2011/12, the prevalence in those in the lowest income quintile was 33% higher than that those in the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Caution is warranted when comparing these percentages to other data sources because of potential differences in the definitions of how persons with mood and anxiety disorders are counted.
- According to the Canadian Community Health Survey, 4.7% and 2.6% of residents (aged 15 years and older) reported having a mood disorder and a generalized anxiety disorder in 2012, respectively.¹
- 15-20% of persons with a mental health disorder also have a substance abuse problem.²

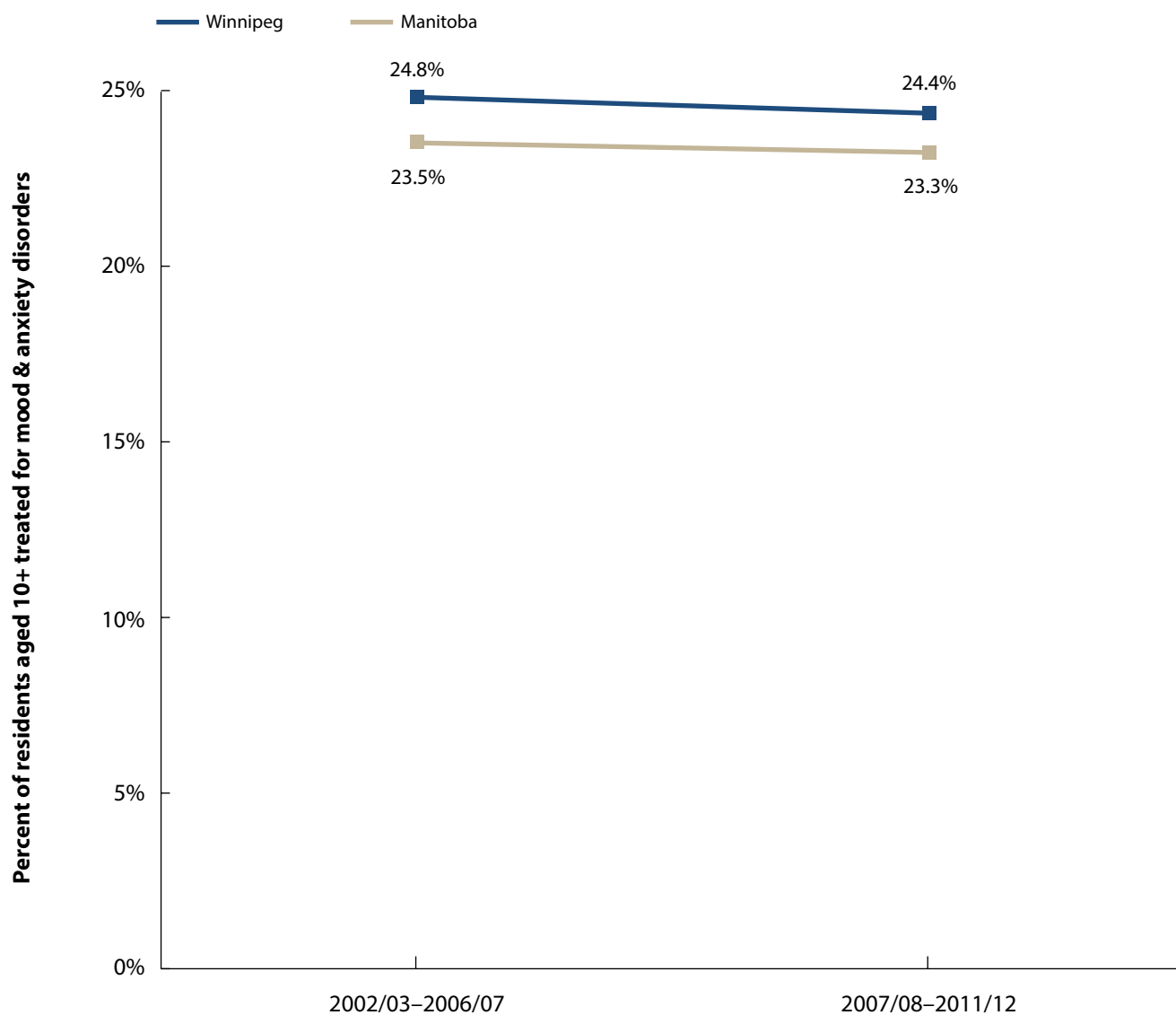
¹ Pearson G., Janz T., Ali J. *Mental and substance use disorders in Canada. Statistics Canada, Catalogue no.82-624-X. Ottawa, 2013.*

² Canadian Centre for Substance Abuse. *Substance abuse in Canada: concurrent disorders. Ottawa, 2009.*

Figure A3.4.1.a1

Trends in Mood & Anxiety Disorders Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 10+ who received treatment, 2002/03–2011/12

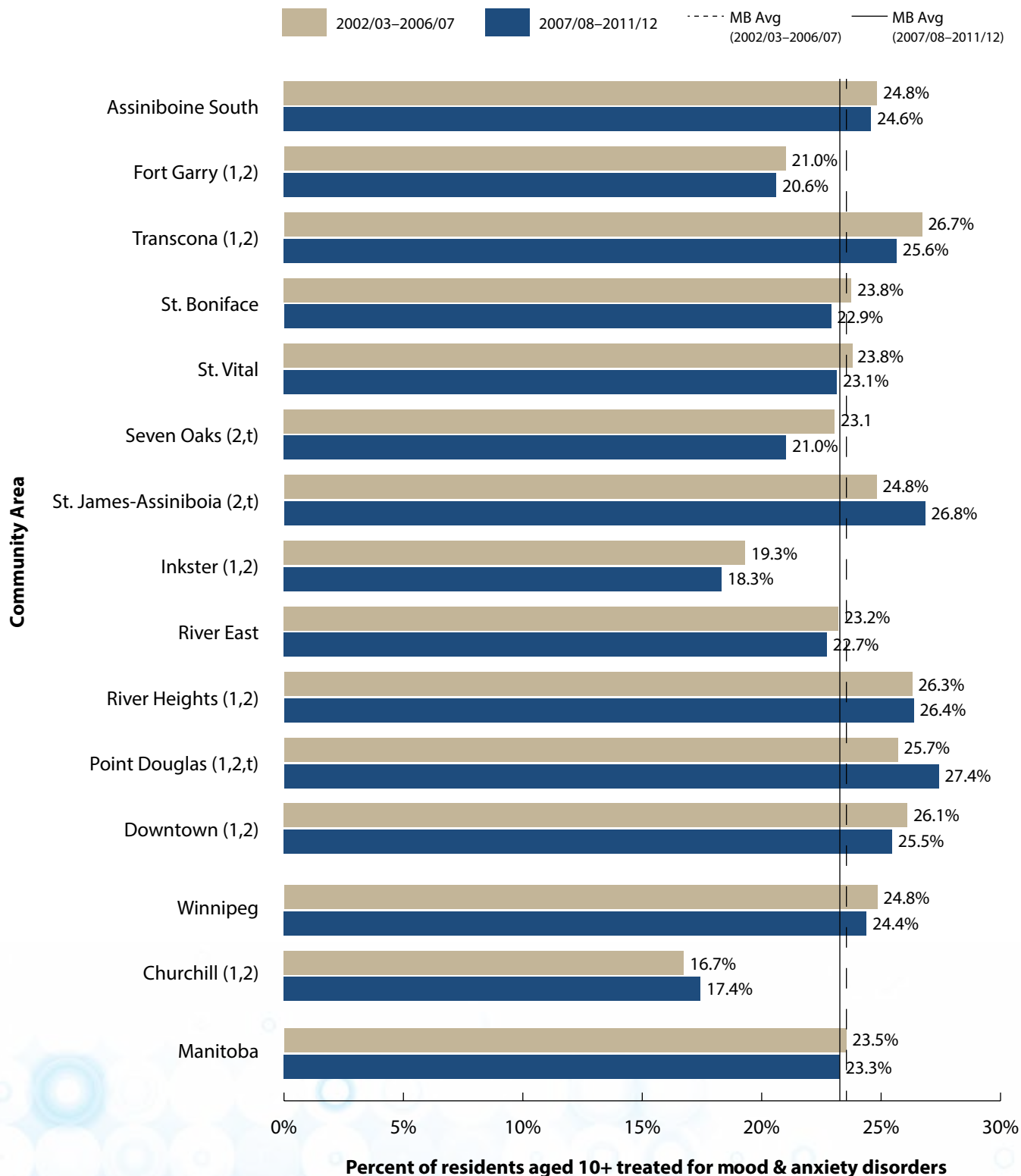


Source: Manitoba Centre for Health Policy, 2013

Figure A3.4.1.a2

Mood & Anxiety Disorders Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 10+ who received treatment, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

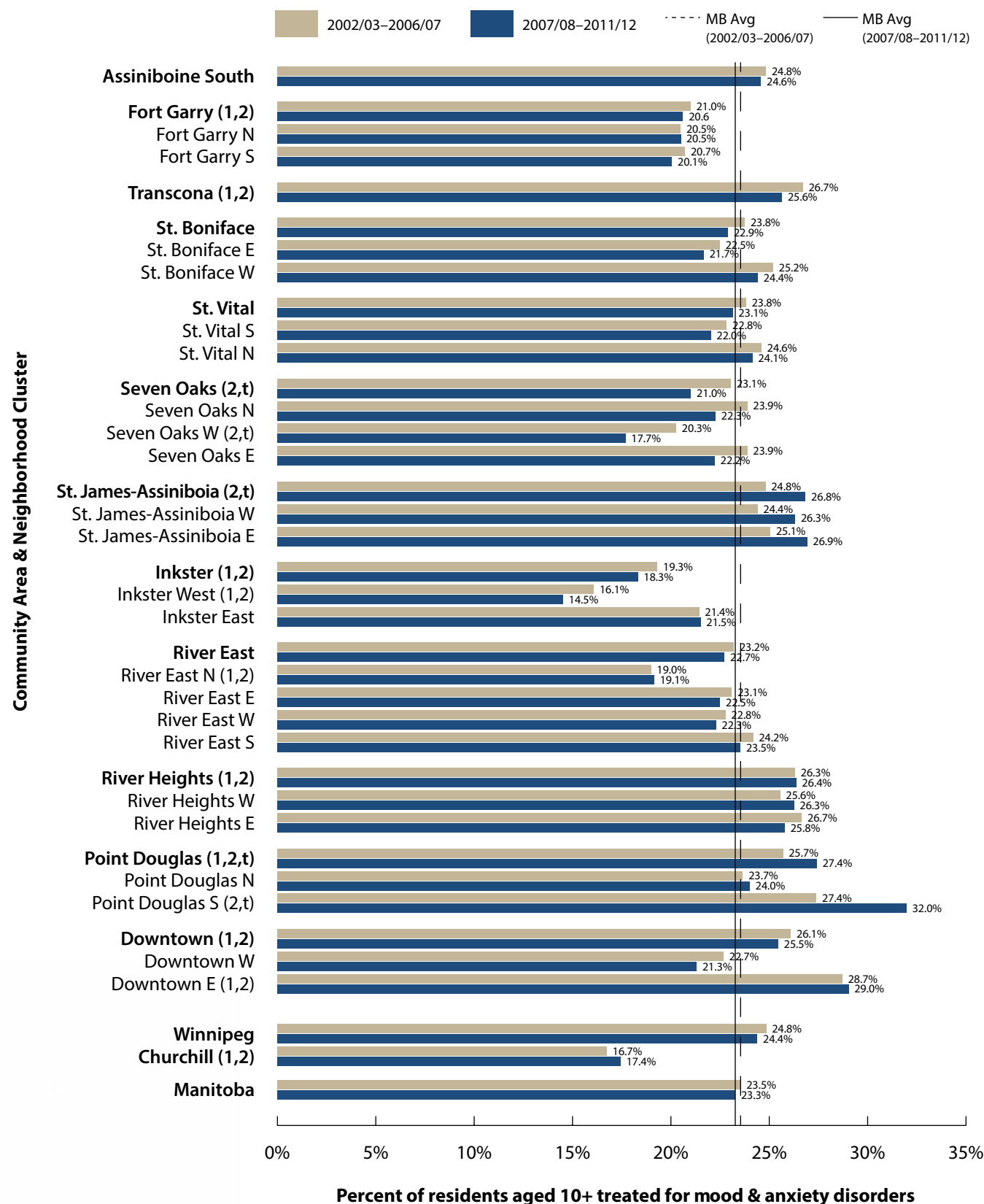
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.4.1.a3

Mood & Anxiety Disorders Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

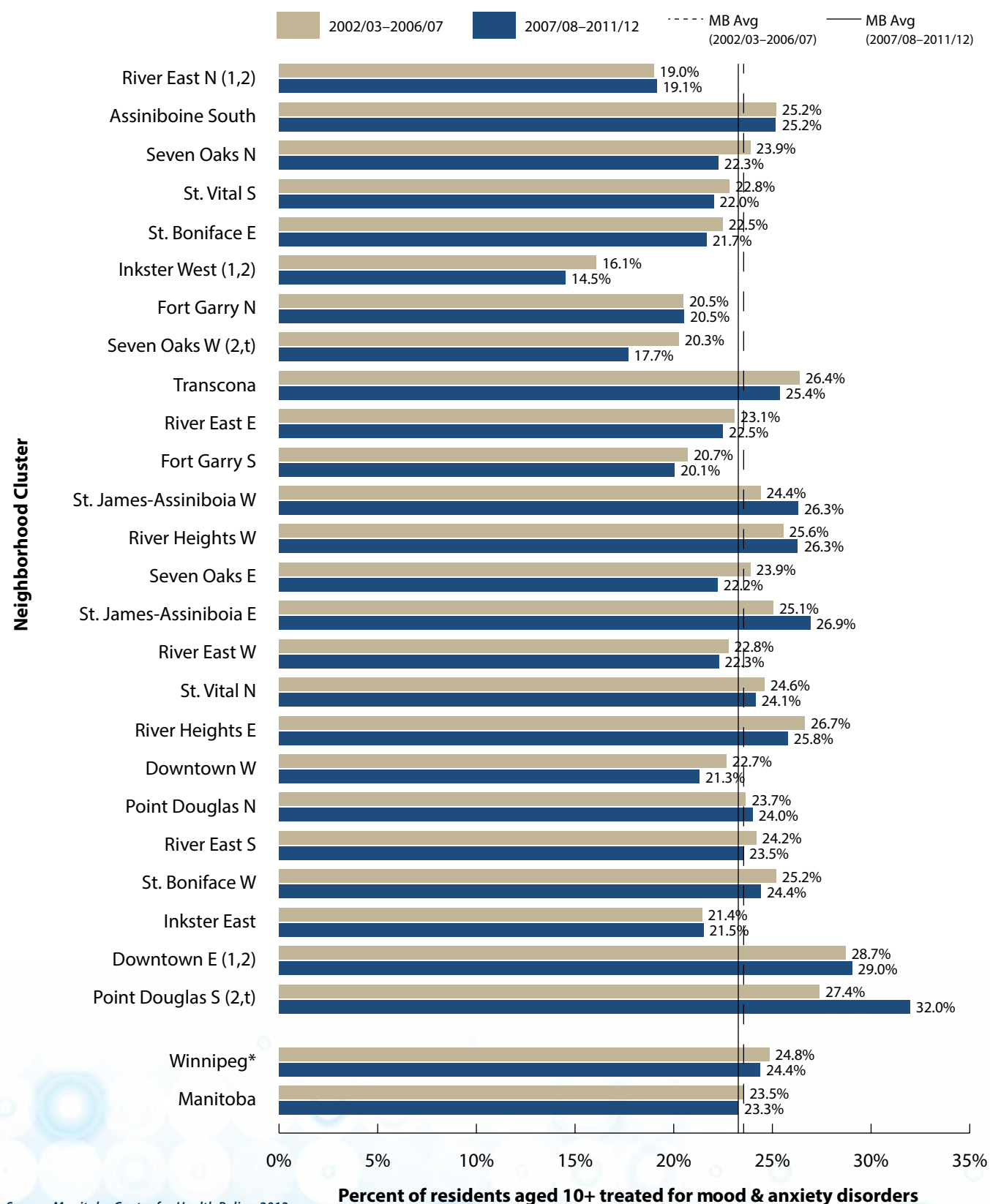
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.4.1.a4

Mood & Anxiety Disorders Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

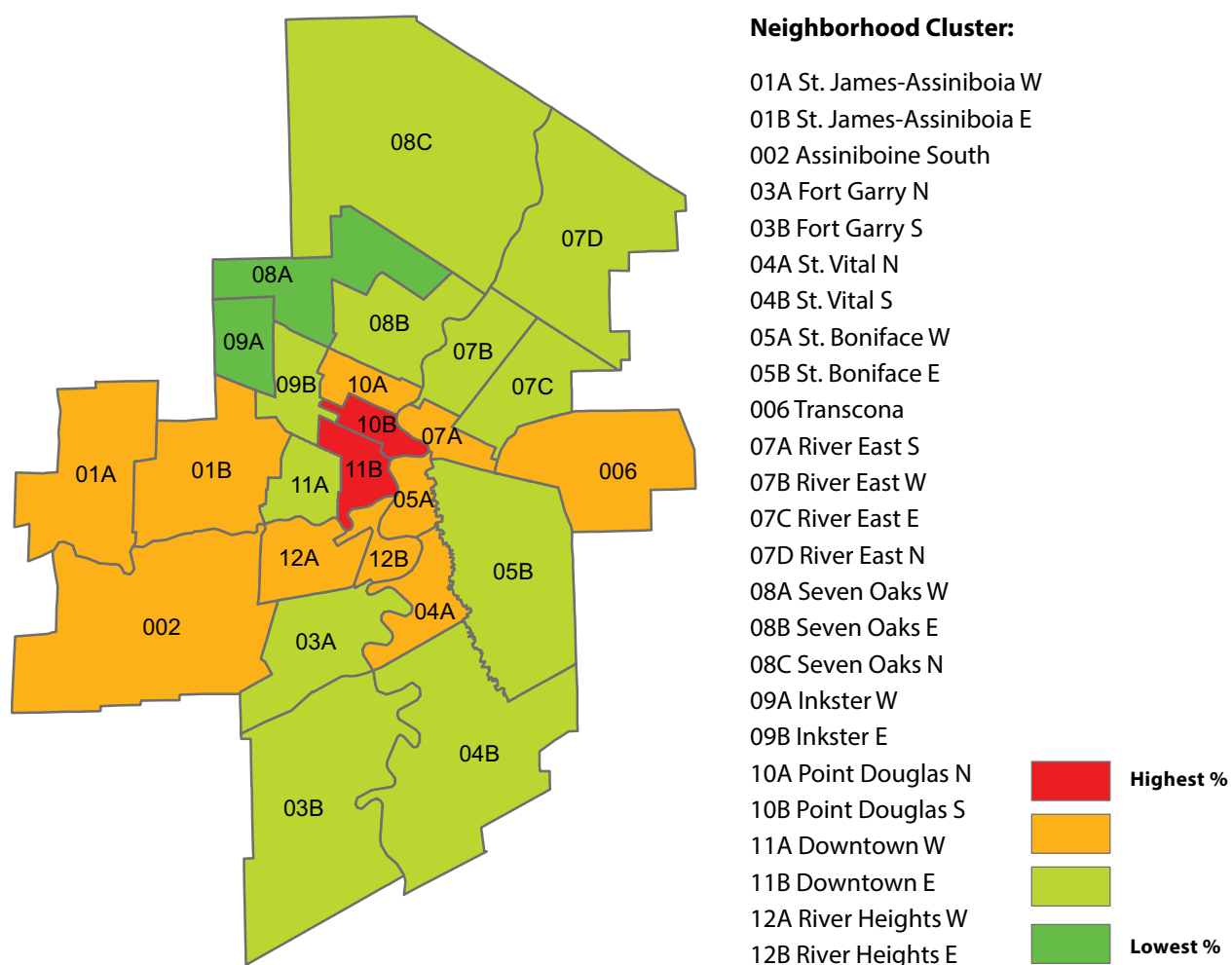
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Mood & Anxiety Disorders Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.4.1.a1

Health Inequality in Mood & Anxiety Disorders Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
Mood & Anxiety Disorder prevalence (%) by <i>Neighborhood Cluster (NC) median household income</i>	2002/03–2006/07 % of persons treated for mood & anxiety disorders	2007/08–2011/12 % of persons treated for mood & anxiety disorders
Highest income NC (River East N)	19.0%	19.1%
Lowest income NC (Point Douglas S)	27.4%	32.0%
Absolute difference (Lowest income NC – Highest income NC)	8.4%	12.9%
Ratio (Lowest income NC / Highest income NC)	1.44	1.67
Mood & Anxiety Disorder prevalence (%) by <i>Urban Income Quintile</i>	2002/03–2006/07 % of persons treated for mood & anxiety disorders	2007/08–2011/12 % of persons treated for mood & anxiety disorders
Highest Urban Income Quintile (U5)	21.3%	21.1%
U4	22.0%	21.7%
U3	23.4%	23.3%
U2	24.3%	24.1%
Lowest Urban Income Quintile (U1)	28.0%	28.1%
Absolute difference (U1-U5)	6.7%	7.0%
Ratio (U1/U5)	1.31	1.33

Source: Manitoba Centre for Health Policy, 2013



Indicator: Substance Abuse Prevalence

DEFINITION: The percentage of residents aged 10 years and older with substance abuse during a 5-year period. Substance abuse is defined as:

- at least one hospitalization with a mental and behavioural disorder due to: (i) abuse of psychoactive substances, including alcohol, opioids, cannabinoids, sedatives/hypnotics, cocaine, other stimulants (including caffeine), hallucinogens, tobacco, volatile solvents, and others; or (ii) abuse of non-dependence-producing substances, including antacids, herbal/folk medicine, steroids/hormones, and vitamins and,
- at least one physician visit with a disorder listed above.

NUMERATOR: The number of Winnipeg Regional Health Authority (the Region) residents aged 10 years and older treated for substance abuse.

DENOMINATOR: The number of the Region's residents aged 10 years and older.

CALCULATION: Prevalence was calculated and age- and sex-adjusted to the Manitoba population aged 10 years and older for the first time period (i.e., 2002/03-2006/07 Manitoba population as the standard population for 2002/03-2006/07 and 2007/08-2011/12; 1996/97-2000/01 Manitoba population as the standard population for 1996/97-2000/01 and 2001/02-2005/06). *Note:* 2001/02-2005/06 data is not reported in the trend chart as it overlaps with the 2002/03-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- 4.9% of the Region's residents aged 10 years and older received healthcare related to substance abuse in the period 2007/08-2011/12. The prevalence has been stable over time.
- There was significant variation across the Region. Churchill was the community area (CA) with the highest prevalence (14.6% for the period 2007/08-2011/12) which is an almost 3-fold higher percent than Winnipeg and Manitoba prevalence values. Point Douglas South and Downtown East were the neighborhood clusters (NCs) with the highest treatment for substance abuse prevalence, 14.1% and 9.1% for the period 2007/08-2011/12, respectively.
- Low income communities tended to have a higher prevalence of treatment for substance abuse: (a) the lowest income NC (Point Douglas South) had 4-5 times higher prevalence than the highest income NC (River East North); (b) the lowest income communities had the highest prevalence of treatment for substance abuse disorders.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- In Canada, 4.4% of residents age 15 years and older reported having a substance abuse disorder in 2012.¹ Young people aged 15-24 years are more likely to have a substance abuse and/or a mental health disorder.¹
- Substance abuse disorders and mental health disorders often co-occur, with more than 50% of substance abuse users having a mental health disorder and 15-20% of persons with a mental health disorder having a substance abuse problem.²
- The income-related inequality in substance abuse has an important implication for public health intervention planning in the Region.

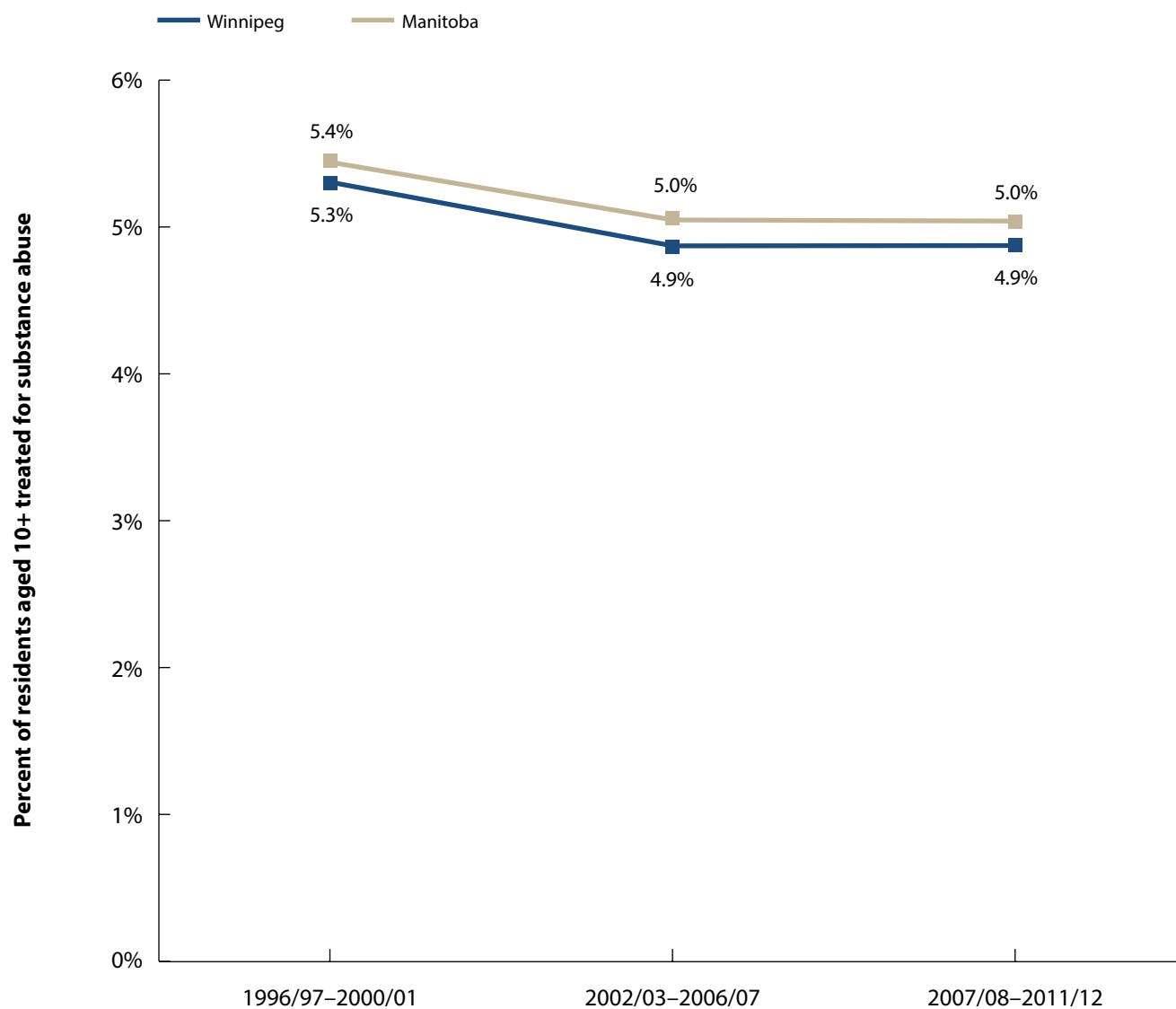
1 Pearson G., Janz T., Ali J. *Mental and substance use disorders in Canada. Statistics Canada, Catalogue no.82-624-X. Ottawa, 2013.*

2 Canadian Centre for Substance Abuse. *Substance abuse in Canada: concurrent disorders. Ottawa, 2009.*

Figure A3.4.2.a1

Trends in Substance Abuse Prevalence in Winnipeg & Manitoba

Age- & sex-adjusted percent of residents aged 10+ who received treatment for substance abuse, 1996/97–2011/12

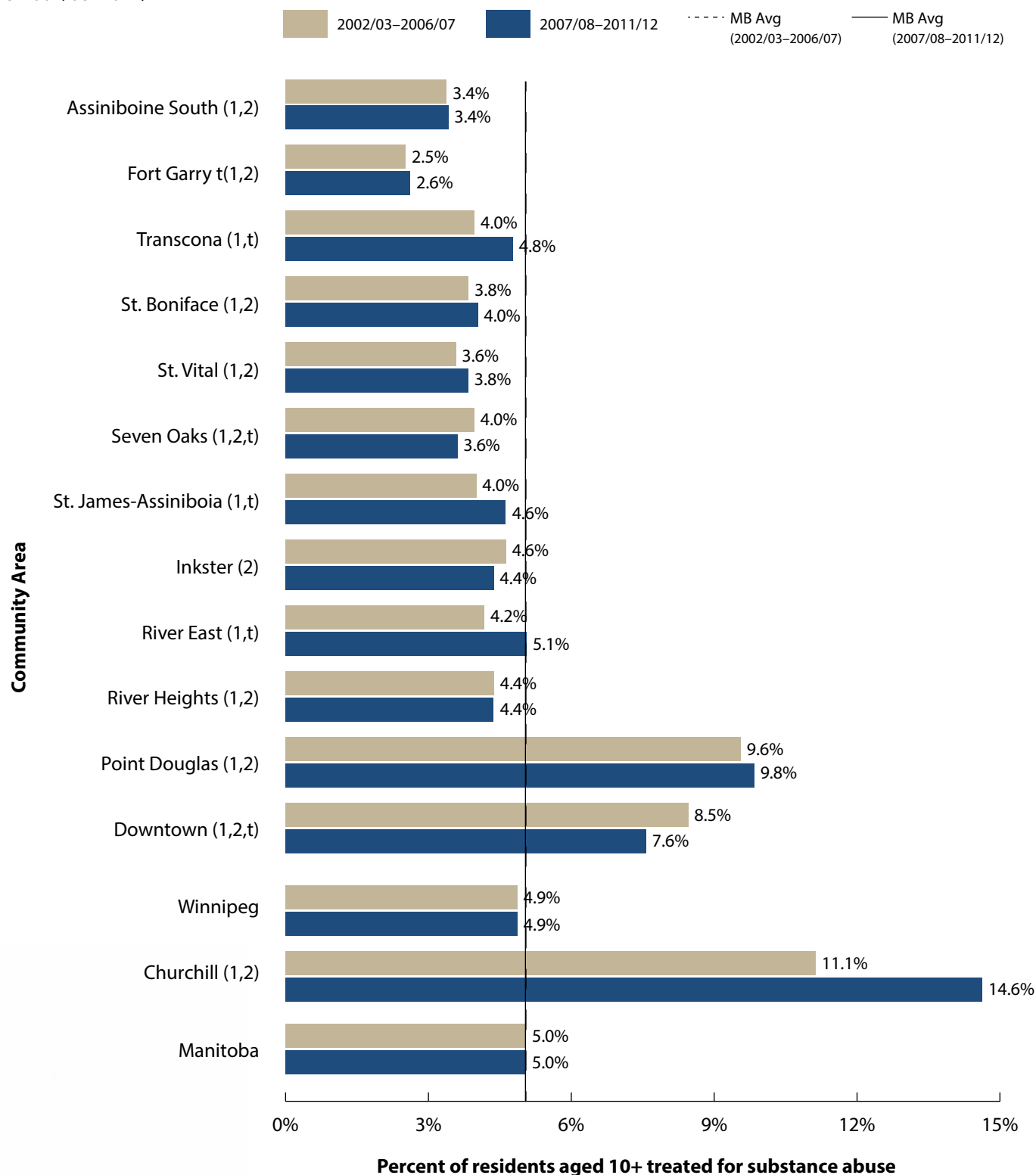


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A3.4.2.a2

Substance Abuse Prevalence by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 10+ who received treatment for substance abuse, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

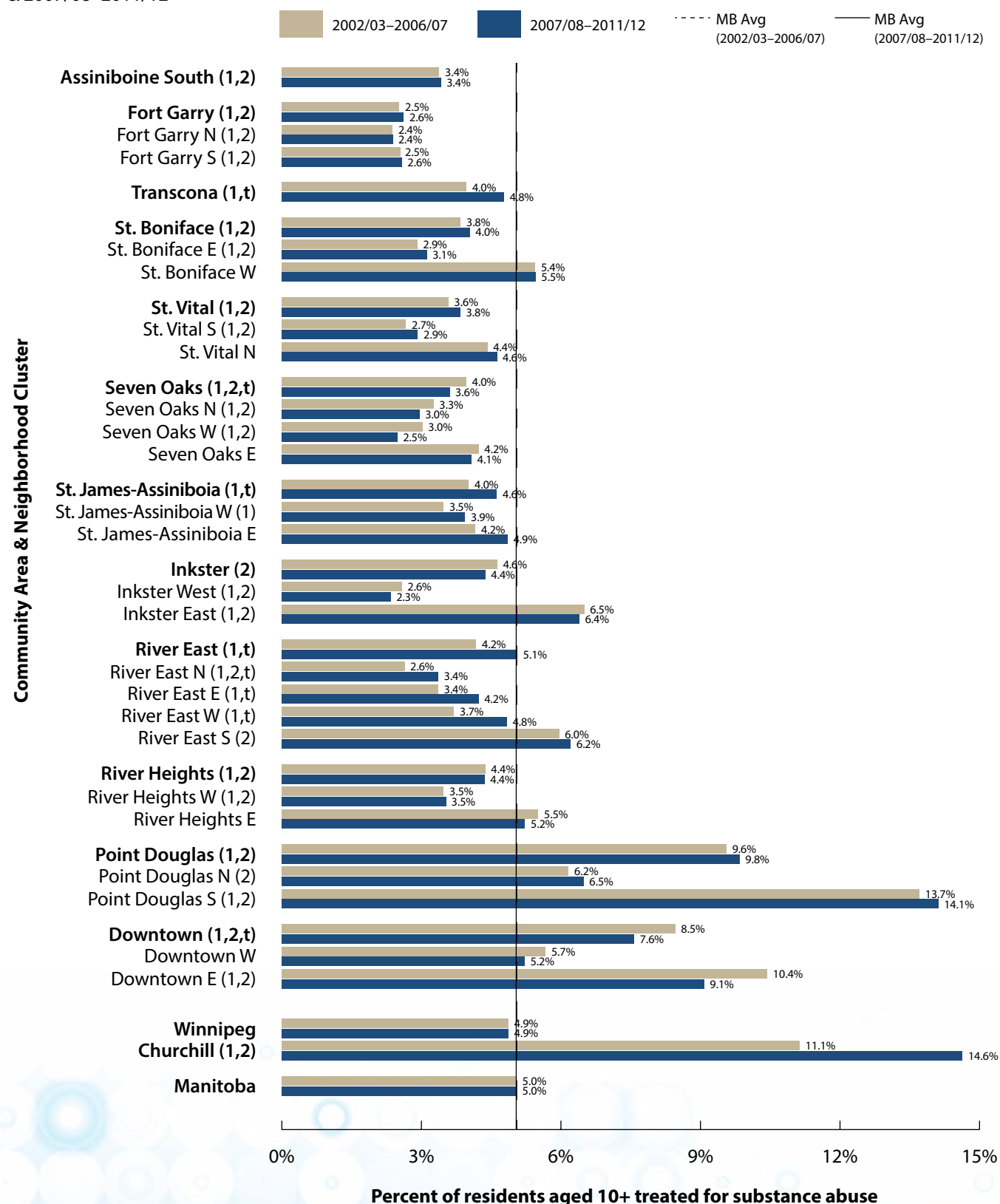
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.4.2.a3

Substance Abuse Prevalence by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment for substance abuse, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

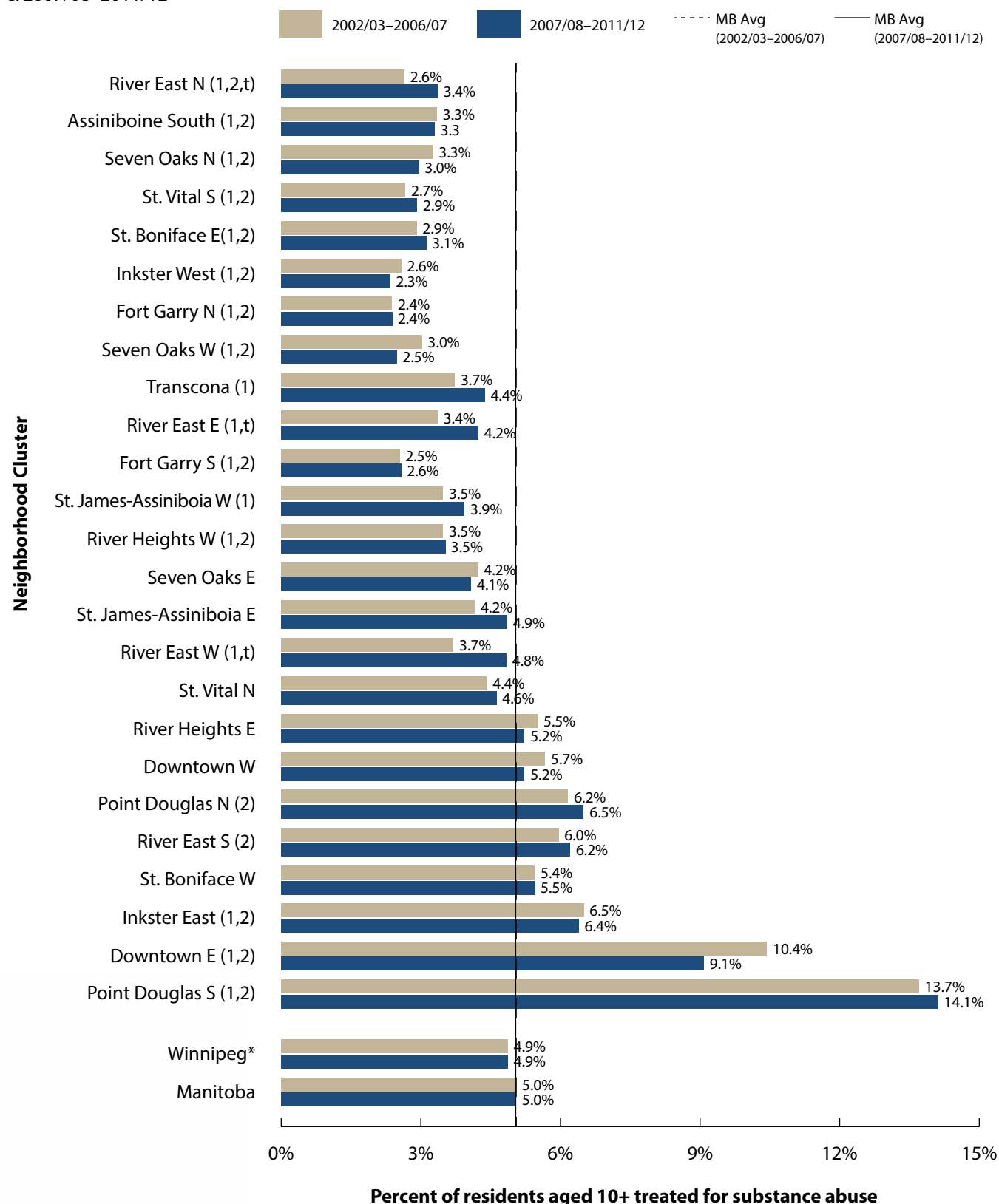
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A3.4.2.a4

Substance Abuse Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment for substance abuse, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

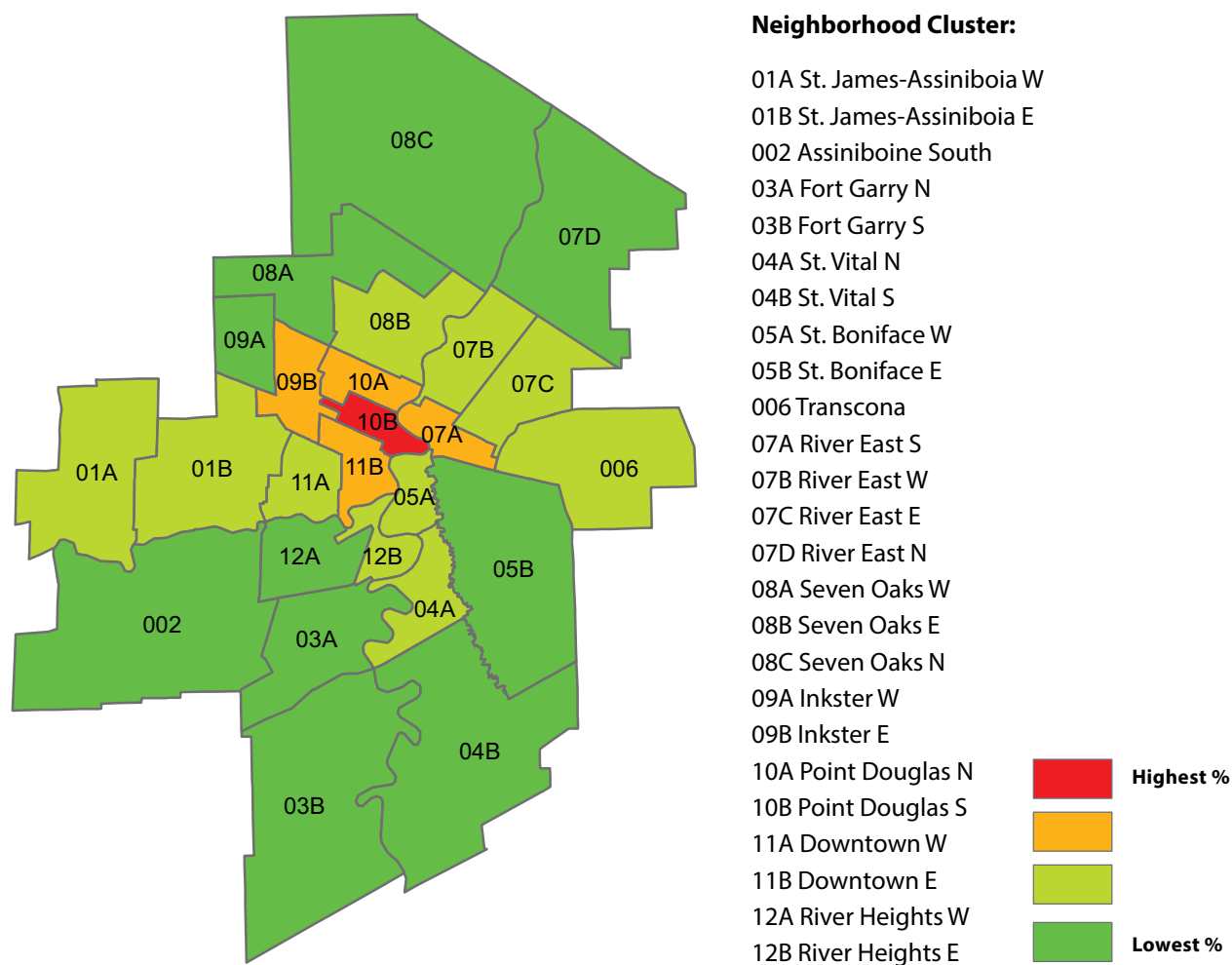
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Substance Abuse Prevalence by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 10+ who received treatment for substance abuse, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A3.4.2.a1

Health Inequality in Substance Abuse Prevalence (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03–2006/07 % of persons treated for substance abuse	2007/08–2011/12 % of persons treated for substance abuse
Substance Abuse Prevalence (%) <i>by Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	2.6%	3.4%
Lowest income NC (Point Douglas S)	13.7%	14.1%
Absolute difference (Lowest income NC – Highest income NC)	11.1%	10.7%
Ratio (Lowest income NC / Highest income NC)	5.27	4.15
Substance Abuse Prevalence (%) <i>by Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	2.4%	2.6%
U4	3.3%	3.5%
U3	4.1%	4.4%
U2	5.1%	5.3%
Lowest Urban Income Quintile (U1)	8.4%	8.1%
Absolute difference (U1-U5)	6.0%	5.5%
Ratio (U1/U5)	3.50	3.12

Source: Manitoba Centre for Health Policy, 2013



Indicator: Injury Hospitalization Rate

DEFINITION: The number of injury hospitalizations in a given year (for an annual rate, hospitalizations are based on the year of the hospital admission date), per 100,000 population as of June 1 of the same year. An injury hospitalization is defined as any inpatient hospitalization with the presence of one of the external cause of injury codes (ICD-9 E-Codes or ICD-10 V, W, X, Y-Codes) in any of the diagnoses fields (i.e., not limited to the “Most Responsible Diagnosis” variable) in the hospital discharge abstracts database.

NUMERATOR: The number of injury hospitalizations in the Winnipeg Regional Health Authority (the Region) in a given year.

DENOMINATOR: The Region’s population as of June 1 of the given year. Population data were derived from the Manitoba Health Insurance Registry.

CALCULATION: Annual age-standardized rates were directly age-standardized to the 2006 Canadian population (provided by Statistics Canada). Similarly, age and sex specific injury hospitalization rates were calculated using age and sex specific injury hospitalizations and population for any specific year.

DATA SOURCE: Manitoba Health Injuries Report: WRHA, 2000-2012

KEY FINDINGS:

- The age-standardized unintentional injury hospitalization rate in the Region continued to decline between 2000 and 2012 and was constantly lower than Manitoba’s provincial average. In 2012, age-standardized unintentional injury hospitalization rate was 511 per 100,000 for the Region.
- The crude unintentional injury hospitalization rate tends to increase with age. The rate for those aged 75 years and older was more than 10 times higher than the rate for children.
- However, age-standardized intentional injury hospitalization rate slowly increased prior to 2008 in both the Region and the province and then started to decline. In 2012, age-standardized intentional injury hospitalization rate was 99 per 100,000 for the Region.
- The crude intentional injury hospitalization rate was highest among young persons (aged 15-34 years).
- Household income was associated with both unintentional and intentional injury hospitalizations: unintentional and intentional injury hospitalization rates for those in the lowest income quintile were 2.29 times and 7.08 times higher, respectively, than for those in the highest income quintile.

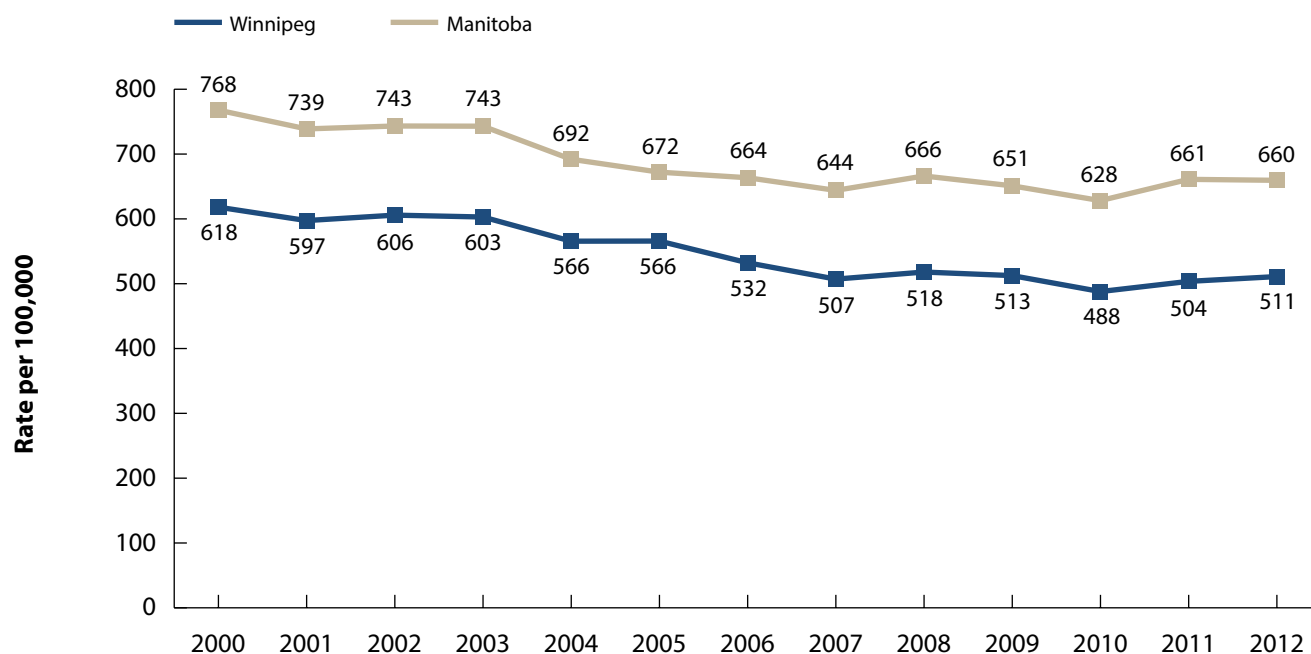
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Age distributions for unintentional and intentional injury hospitalizations differ, indicating different target populations for prevention of injuries requiring hospitalization.

Figure A3.5.1.a1

Trends in Unintentional Injury Hospitalization Rates by Year in Winnipeg & Manitoba

Age-standardized rate per 100,000 residents, 2000–2012

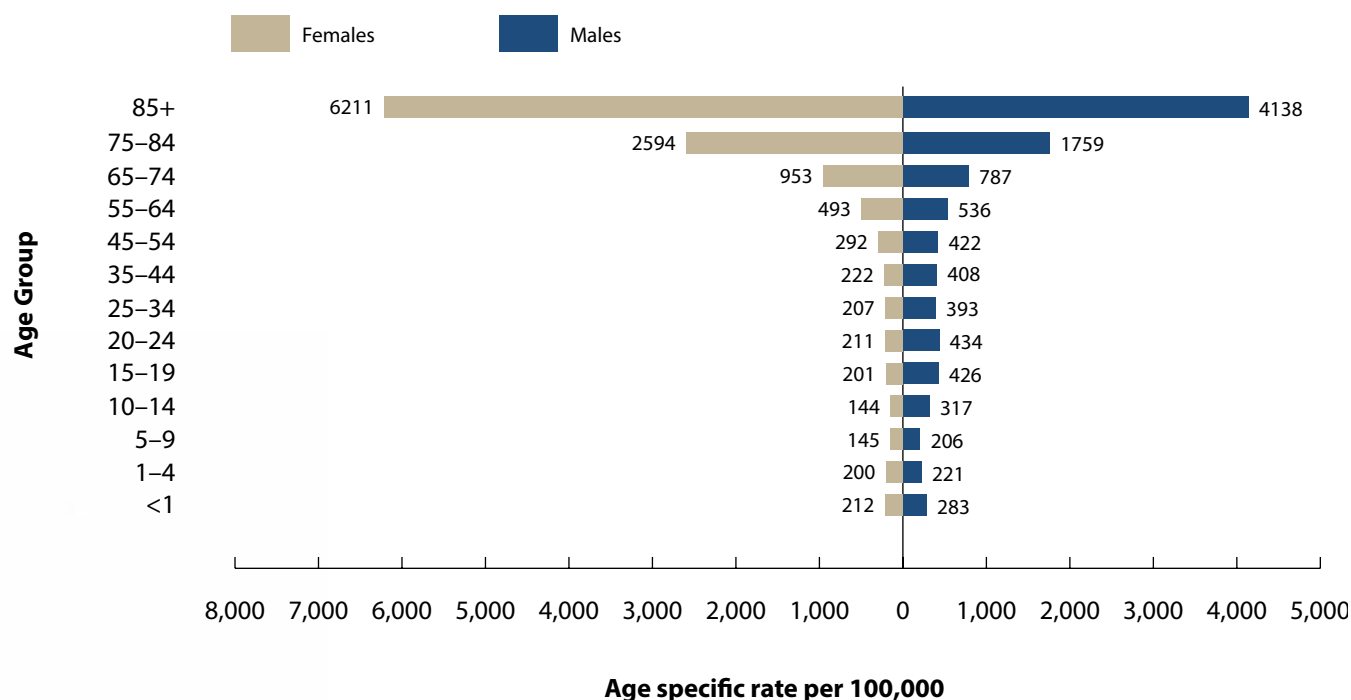


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.5.1.a2

Unintentional Injury Hospitalization Rates in the Winnipeg Regional Health Authority

Residents grouped by age & sex, 2000–2012

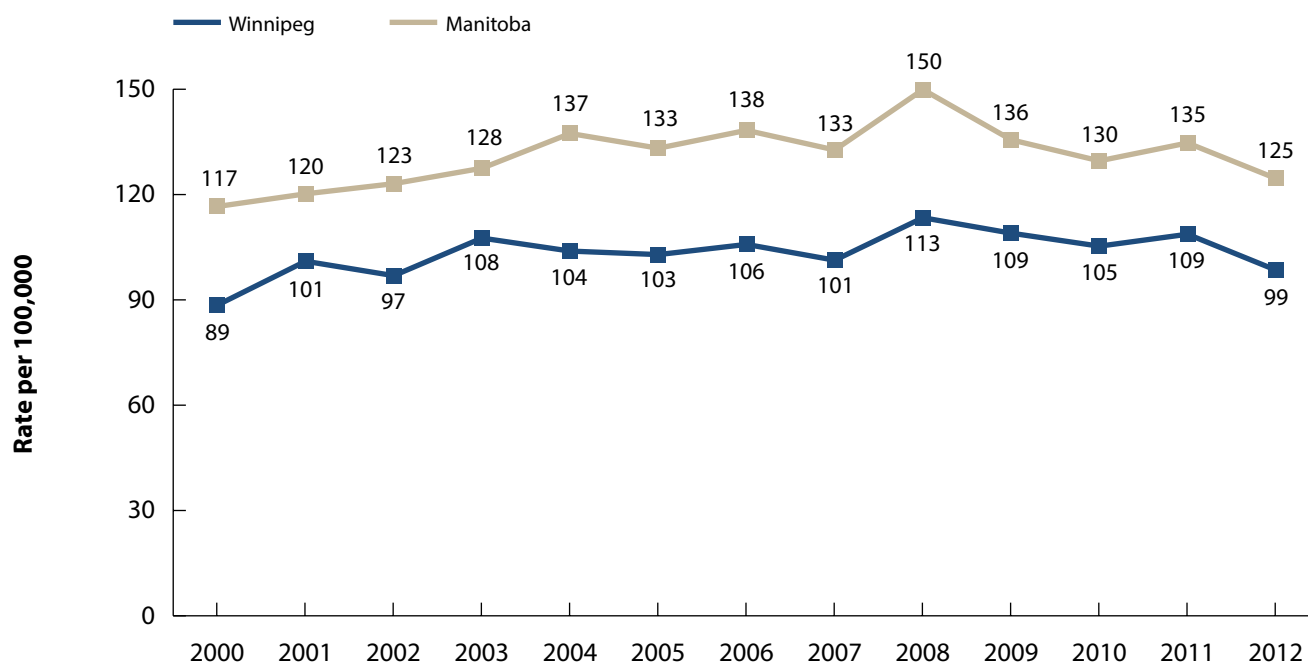


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.5.1.a3

Trends in Intentional Injury Hospitalization Rates by Year in Winnipeg & Manitoba

Age-standardized rate per 100,000 residents, 2000–2012

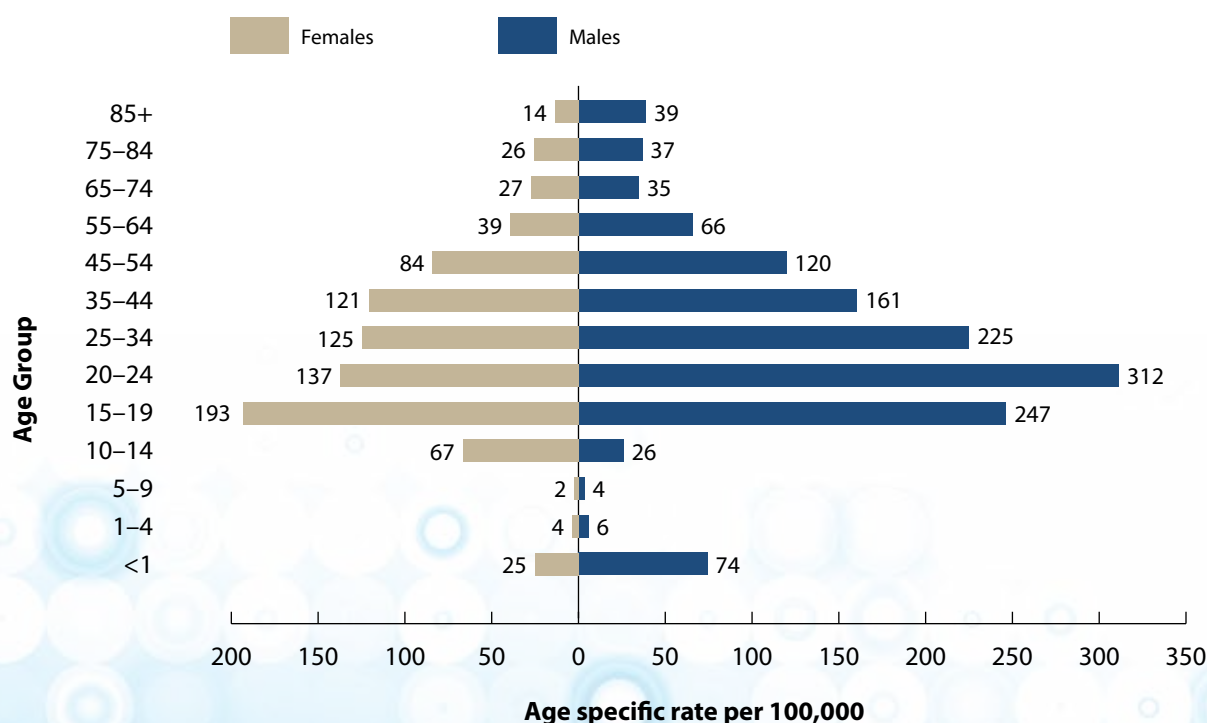


Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Figure A3.5.1.a4

Intentional Injury Hospitalization Rates in the Winnipeg Regional Health Authority

Residents grouped by age & sex, 2000–2012



Source: Manitoba Health Injuries Report: WRHA, 2000–2012

Table A3.5.1.a1

Health Inequality in Unintentional Injury Hospitalization by Urban Income Quintile

Health Inequality Measures	Time Period
Unintentional Injury Hospitalization by <i>Urban Income Quintile</i>	2000–2012 # of hospitalizations per 100,000 residents
Highest Urban Income Quintile (U5)	367
U4	379
U3	493
U2	559
Lowest Urban Income Quintile (U1)	841
Absolute difference (U5–U1)	474
Ratio (U5/U1)	2.29

Manitoba Health Injuries Report: WRHA, 2000–2012

Table A3.5.1.a2

Health Inequality in Intentional Injury Hospitalization by Urban Income Quintile

Health Inequality Measures	Time Period
Intentional Injury Hospitalization by <i>Urban Income Quintile</i>	2000–2012 # of hospitalizations per 100,000 residents
Highest Urban Income Quintile (U5)	37
U4	52
U3	73
U2	105
Lowest Urban Income Quintile (U1)	259
Absolute Difference (U5–U1)	222
Ratio (U5/U1)	7.00

Manitoba Health Injuries Report: WRHA, 2000–2012



Indicator: Leading Causes of Injury Hospitalization

DEFINITION: The contribution of a specific cause to total injury hospitalizations. An injury hospitalization is defined as any inpatient hospitalization with presence of one of the external cause of injury codes (ICD-9 E-Codes or ICD-10 V, W, X, Y-Codes) in any of the diagnoses fields (i.e., not limited to the “Most Responsible Diagnosis” variable) in the hospital discharge abstracts database.

NUMERATOR: The number of injury hospitalizations in the Winnipeg Regional Health Authority (the Region) for various reasons in the period, 2000-2012.

DENOMINATOR: The number of injury hospitalizations in the Region, 2000-2012.

CALCULATION: Crude proportions were calculated. Injury hospitalization rates by cause were directly age-standardized to the 2006 Canadian population (provided by Statistics Canada).

DATA SOURCE: Manitoba Health Injuries Report: WRHA, 2000-2012

KEY FINDINGS:

- Falls and motor vehicle collisions were the top two reasons (causes) for unintentional injury hospitalizations and accounted for 52.3% and 6.4%, respectively, of all injury hospitalizations in the Region during the period, 2000-2012.
- Self-inflicted harm (including suicide) and assault were the two main causes of intentional injury hospitalizations and accounted for 7.3% and 7.9%, respectively, of all injury hospitalizations in the Region during the period, 2000-2012.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The data indicate falls, self-inflicted harm (including suicide), assault, and motor vehicle collision are the priorities for injury prevention in the Region.

Table A3.5.1.b1

Leading Causes of Injury Hospitalization (counts and rates) in Winnipeg & Manitoba Residents, 2000–2012

Cause	Winnipeg			Cause	Manitoba		
Unintentional Injury	No. Cases	Percent	Age Standard Rate	Unintentional Injury	No. Cases	Percent	Age Standard Rate
Falls	31,637	52.3%	338.9	Falls	64,408	48.9%	400.5
MVC (Total)	3,875	6.4%	43.8	MVC (Total)	9,680	7.4%	62.7
Unspecified (Total)	2,032	3.4%	22.4	Transport, Other	4,944	3.8%	31.9
Struck by or against	1,969	3.3%	22.1	Struck by or against	4,523	3.4%	28.7
Poisoning	1,665	2.8%	18.9	Unspecified (Total)	4,178	3.2%	26.7
Intentional Injury				Intentional Injury			
Self-inflicted*	4,395	7.3%	49.9	Self-inflicted*	10,277	7.8%	66.9
Assault	4,783	7.9%	53.4	Assault	9,985	7.6%	64.1
Other/Unknown Intent	1,185	2.0%	13.4	Other/Unknown Intent	2,665	2.0%	17.3
All Injuries	60,434	100.0%	663.3	All Injuries	131,648	100.0%	834.3

Source: Manitoba Health Injuries Report: WRHA, 2000-2012

*One case with sex missing

MVC – Motor Vehicle Collision

Struck by or against – Includes exposures such as inanimate mechanical forces by objects and a strike or bump by another person including during legal action



Indicator: Genital Chlamydia Infection Rate

DEFINITION: The number of infections due to *Chlamydia trachomatis* (*C. trachomatis*) in the population per year. Chlamydia infection is a sexually transmitted, notifiable infection, and is defined by Manitoba Health as a laboratory-confirmed episode of genital infection due to *C. trachomatis*. All extra-genital infections (i.e., those occurring in the eyes or joints) were excluded.

NUMERATOR: Number of confirmed *chlamydia* infections (not individuals) in the Winnipeg Regional Health Authority (the Region) in a given year.

DENOMINATOR: Number of the Region's residents (mid-point population in the Region) in a given year.

CALCULATION: (Number of infections reported in a calendar year / total mid-year population) × 100,000. Rates are directly age- and sex-standardized to the 2006 population provided by Statistics Canada.

DATA SOURCE: WRHA Population Health Surveillance (Manitoba Communicable Disease Surveillance System), 2013

KEY FINDINGS:

- After increasing to a high point in 2008 (502.8 infections per 100,000 residents), the genital *chlamydia* infection rate has since declined slightly.
- In 2013, the Region's residents aged between 20 and 29 years had the highest infection rate (1387.9 infections per 100,000 residents); and those age 40 years and under accounted for 94 % of all genital *chlamydia* infections.
- The *chlamydia* infection rate varied across the Region, with the highest rate in the Point Douglas community area (971.9 infections per 100,000 residents) and the lowest rate in the Fort Garry community area (236.8 infections per 100,000 residents) in 2013.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- A more accurate urine-based testing method for *chlamydia* was introduced to the province in 2003/04. The increased accessibility and accuracy of this testing method likely contributed to increases in the chlamydia infection rates between 2005 and 2008.¹
- Chlamydia is the most common bacterial sexually transmitted infection in Canada and is usually asymptomatic in both men and women.²
- Young women are most likely to have their chlamydia infections diagnosed.¹ Women aged between 15 and 24 years accounted for nearly 50% of all *chlamydia* infections in Manitoba in 2012.³ Chlamydia in women can be associated with a number of long-term complications including pelvic inflammatory disease and infertility.

¹ Plourde P, Shaw S, Nowicki D, Whitlock M. *Descriptive epidemiology of STBIs in the Winnipeg Health Region*. 2011.

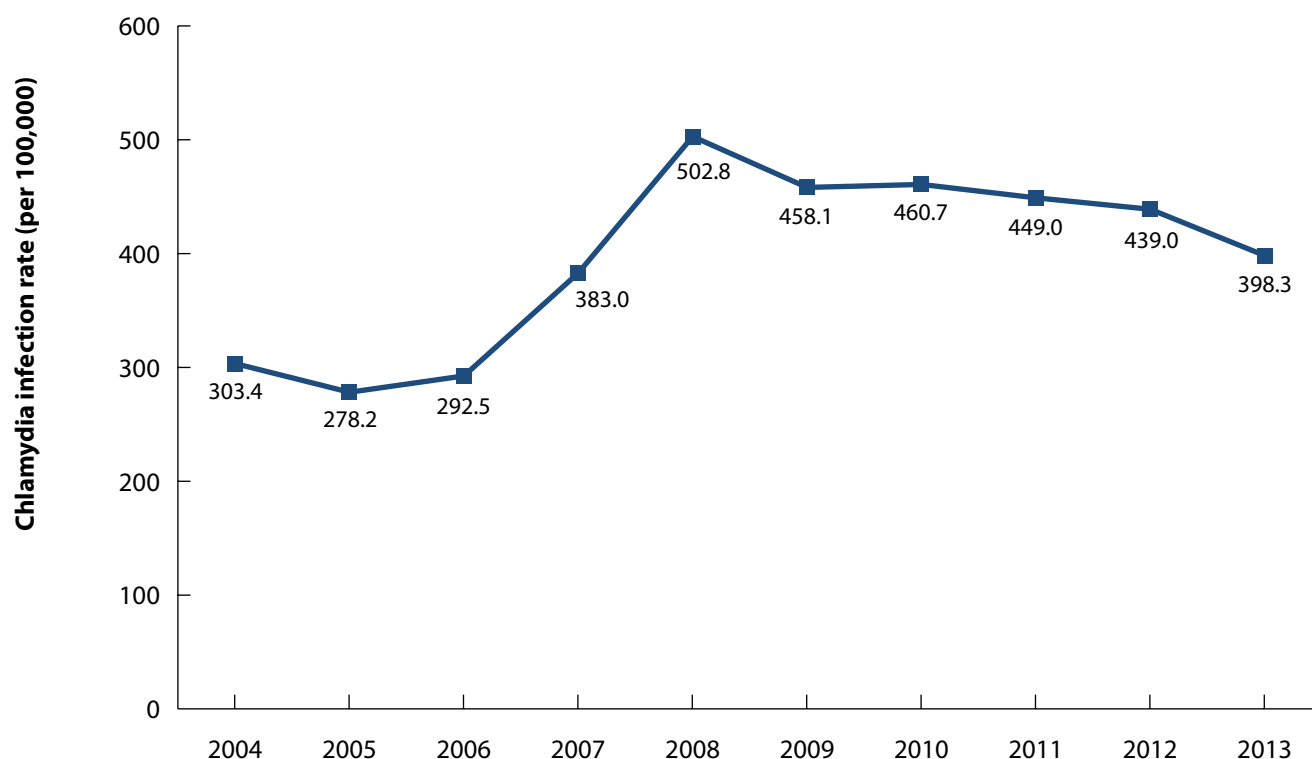
² Public Health Agency of Canada. *The Chief Public Health Officer's Report on the State of Public Health in Canada, 2013: Infectious Disease—The Never-ending Threat* is available on the Internet at the following address: <http://publichealth.gc.ca/CPHOREport>

³ Manitoba Health. *Manitoba Monthly Surveillance Unit Report*. 2012.

Figure A3.6.1.a1

Trends in Chlamydia Infection Rates by Year in Winnipeg

Age- & sex-standardized rate (per 100,000), 2004–2013



Source: WRHA Population Health Surveillance, 2013

Table A3.6.1.a1

Frequency & Age-Specific Chlamydia Infection Rates (per 100,000) in Winnipeg^a, 2013

All Genital Chlamydia Infections by Age Group		
Age Group	Number	Age-Specific Rate
<20	879	512.1
20–29	1488	1387.9
30–39	434	436.8
40–49	113	110.8
50–59	55	52.9
60+	6	4
Total	2975	406.1

Source: WRHA Population Health Surveillance, 2013

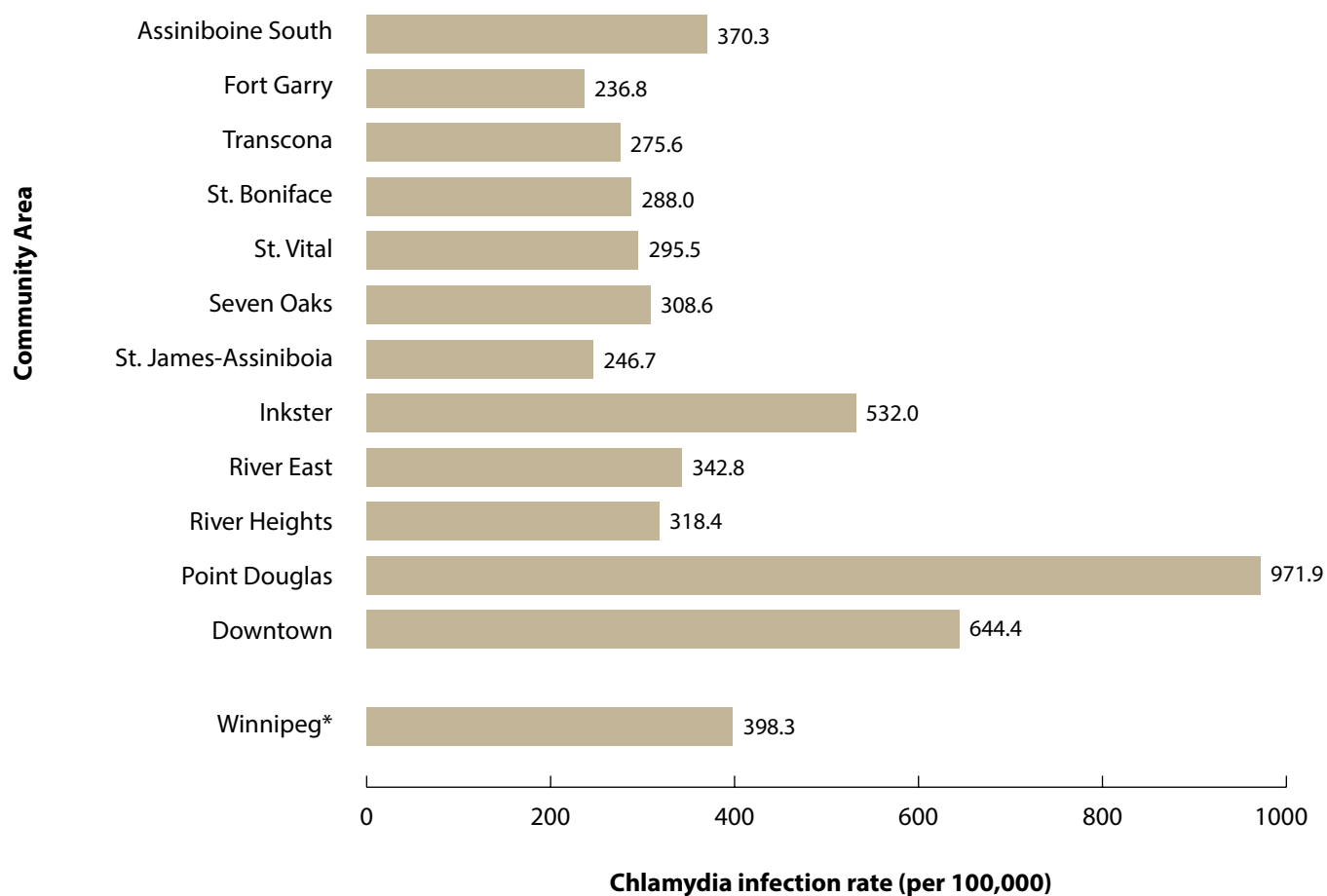
^aAge-specific rates are calculated using the corresponding year's mid-point Winnipeg Regional Health Authority (the Region) population for that age group as the denominator. Population data were derived from the Manitoba Health Insurance Registry and provided (in electronic format) by Manitoba Health in December 2012. 2012 and 2013 population counts were based on projected data.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.6.1.a2

Chlamydia Infection Rates by Winnipeg Community Area

Age- & sex-standardized rate (per 100,000), 2013

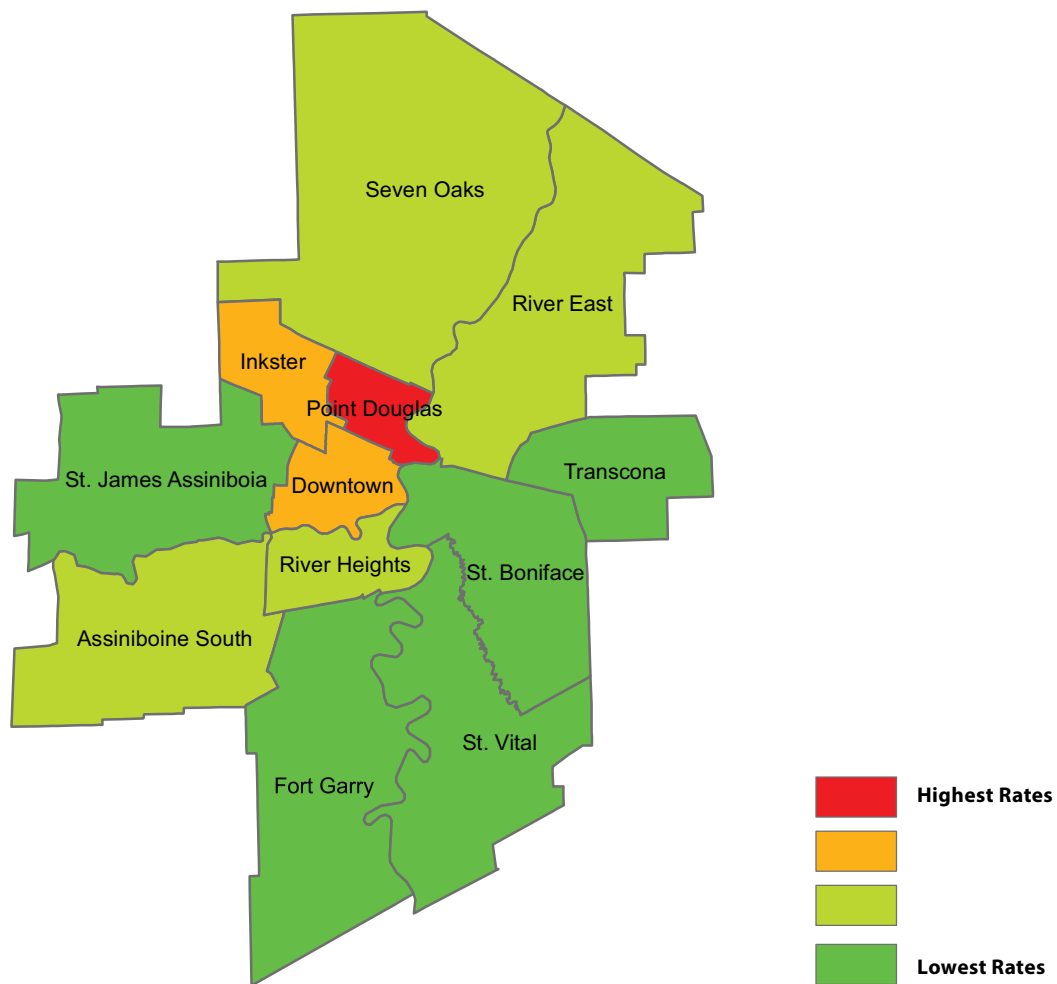


Source: WRHA Population Health Surveillance, 2013

*Excluding Churchill

Chlamydia Infection Rates by Winnipeg Community Area

Age- & sex-standardized rate (per 100,000), 2013



Source: WRHA Population Health Surveillance, 2013



Indicator: Genital Gonorrhea Infection Rate

DEFINITION: The number of infections due to *Neisseria gonorrhea* in the population per year. Gonorrhea infection is a sexually transmitted, notifiable infection, and is defined by Manitoba Health as a laboratory-confirmed episode of genital infection due to *Neisseria gonorrhea*. All extra-genital infections (i.e., those occurring in the eyes or joints) were excluded.

NUMERATOR: Number of confirmed gonorrhea infections (not individuals) in the Winnipeg Regional Health Authority (the Region) in a given year.

DENOMINATOR: Number of the Region's residents (mid-point population in the Region) in a given year.

CALCULATION: (Number of infections reported in a calendar year / total mid-year population) × 100,000. Rates are directly age- and sex-standardized to the 2006 population provided by Statistics Canada.

DATA SOURCE: WRHA Population Health Surveillance (Manitoba Communicable Disease Surveillance System), 2013

KEY FINDINGS:

- From 2004 to 2013, the highest *gonorrhea* infection rate was observed in 2006 (130.3 infections per 100,000 residents). Since 2006, the rate has generally declined, with one exception (2012). In 2012, the rate was 103.9 infections per 100,000 residents.
- In 2013, the Region's residents aged between 20 and 29 years had the highest *gonorrhea* infection rate (244.4 infections per 100,000 residents); and those aged 40 years and under accounted for 40% of all infections.
- The *gonorrhea* infection rate varied across the Region, with the highest rates in Point Douglas community area (CA) (278.7 infections per 100,000 residents) and Downtown CA (177.0 infections per 100,000 residents) in 2013.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- A more accurate, urine-based test for *gonorrhea* contributed to the substantially increased *gonorrhea* infection rate in 2006¹; but the cause of the increase in 2012 is not yet well understood.
- Gonorrhea* is the second most commonly reported bacterial sexually transmitted infection in Manitoba and Canada.
- Young women aged between 15 and 19 have the highest rates of *gonorrhea* infection.²
- Untreated *gonorrhea* infections can lead to a number of complications in women and men.²

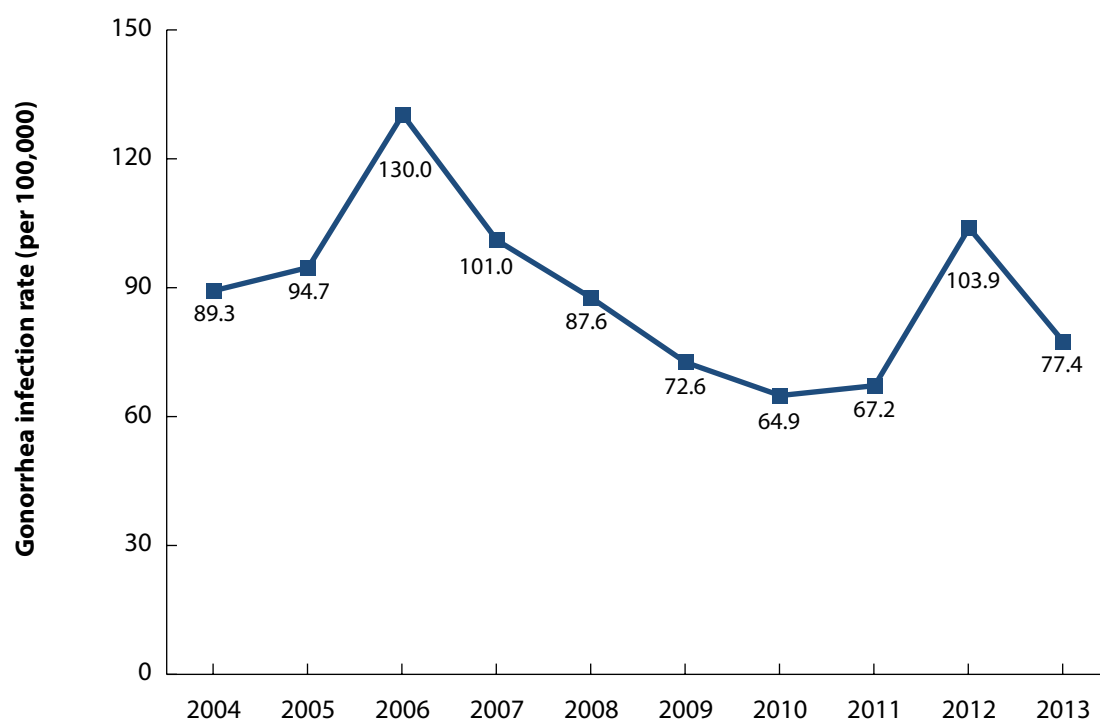
¹ Plourde P, Shaw S, Nowicki D, Whitlock M. *Descriptive epidemiology of STBBIs in the Winnipeg Health Region*. 2011.

² Public Health Agency of Canada. *The Chief Public Health Officer's Report on the State of Public Health in Canada, 2013: Infectious Disease—The Never-ending Threat* is available on the Internet at the following address: <http://publichealth.gc.ca/CPHOREport>

Figure A3.6.2.a1

Trends in Gonorrhea Infection Rates by Year in Winnipeg

Age- & sex-standardized infection rate (per 100,000), 2004–2013



Source: WRHA Population Health Surveillance, 2013

Table A3.6.2.a1

Frequency & Age-Specific Gonorrhea Infection Rates (per 100,000) in Winnipeg^a, 2013

All Genital Gonorrhea Infections by Age Group		
Age Group	Number	Age-Specific Infection Rate
<20	184	107.2
20-29	262	244.4
30-39	80	80.5
40-49	35	34.3
50-59	10	9.6
60+	3	2
Total	574	78.4

Source: WRHA Population Health Surveillance, 2013

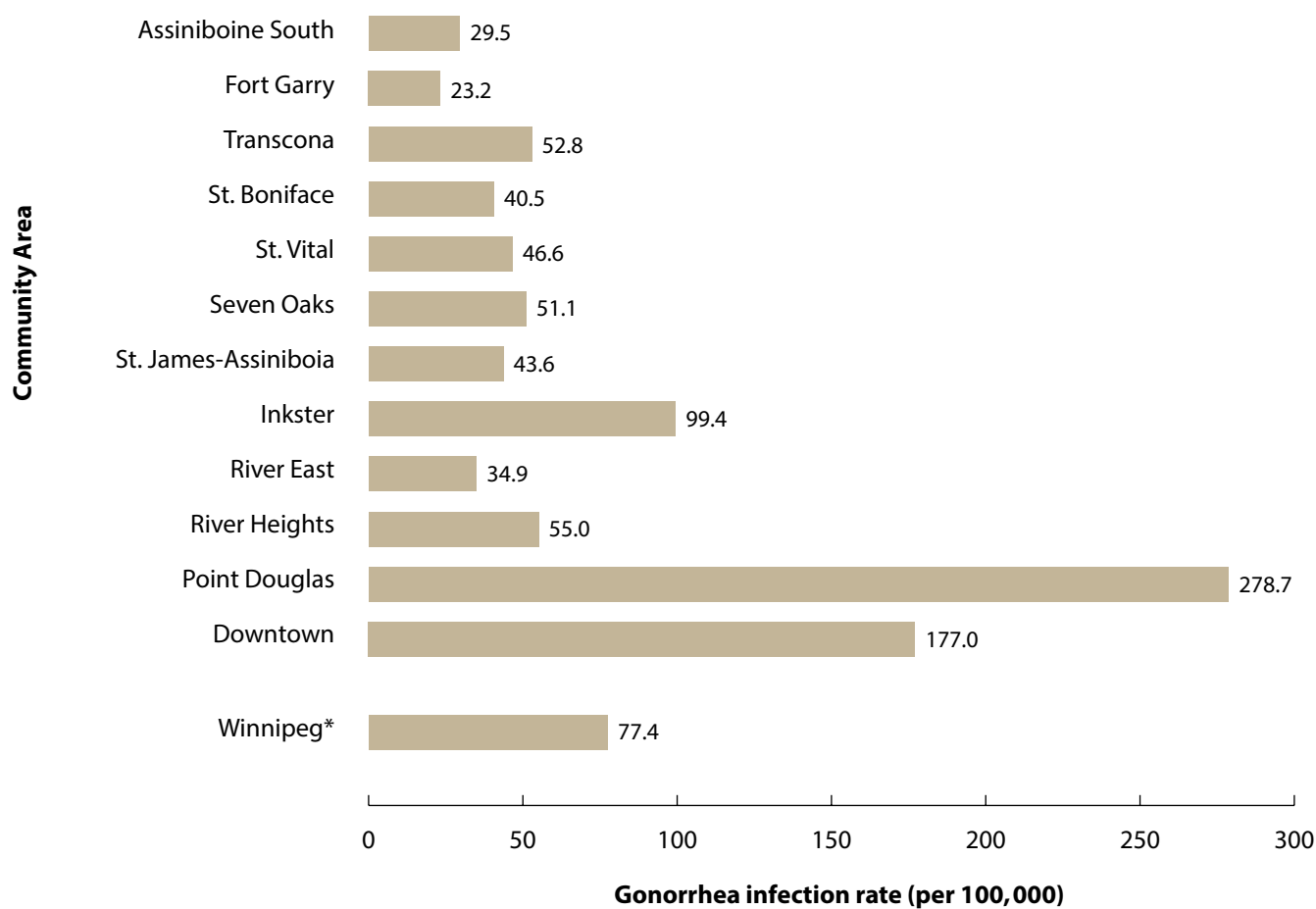
^aAge-specific rates are calculated using the corresponding year's mid-point Winnipeg Regional Health Authority (the Region) population for that age group as the denominator. Population data were derived from the Manitoba Health Insurance Registry and provided (in electronic format) by Manitoba Health in December 2012. 2012 and 2013 population counts were based on projected data.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.6.2.a2

Gonorrhea Infection Rates by Winnipeg Community Area

Age- & sex-standardized infection rate (per 100,000), 2013

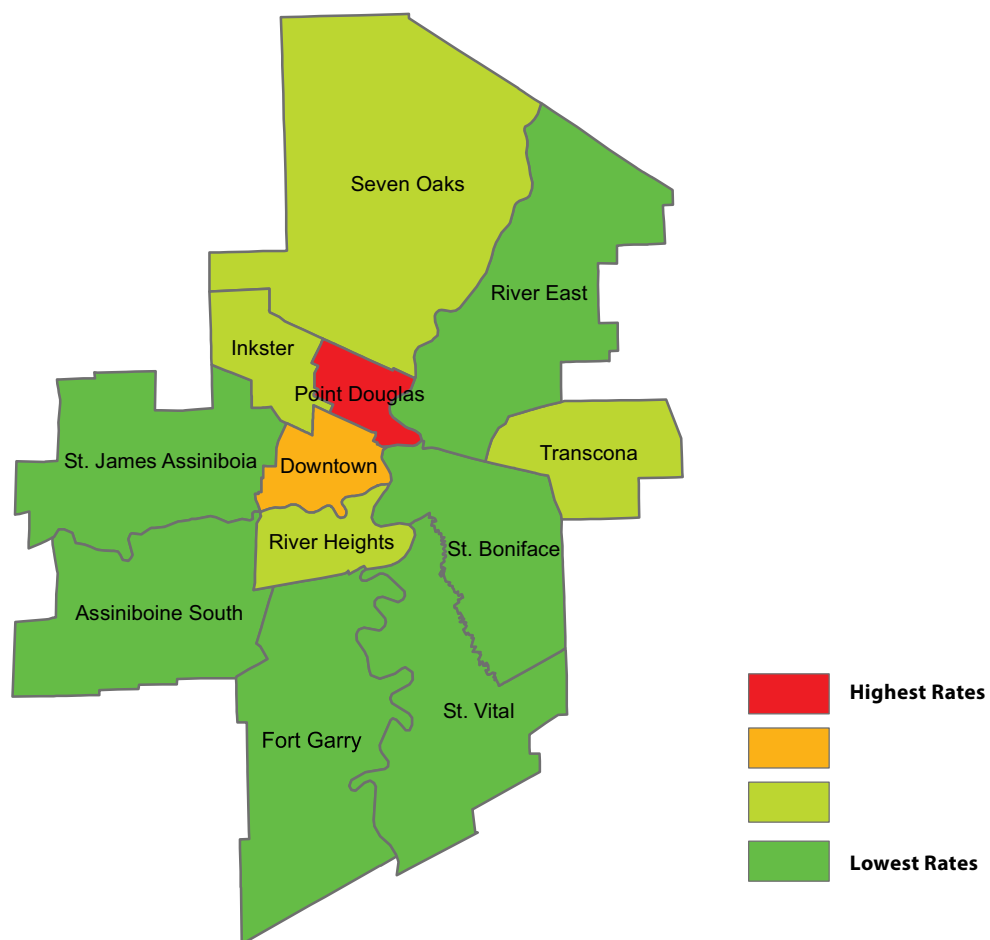


Source: WRHA Population Health Surveillance, 2013

*Excluding Churchill

Gonorrhea Infection Rates by Winnipeg Community Area

Age- & sex-standardized infection rate (per 100,000), 2013



Source: WRHA Population Health Surveillance, 2013

Indicator: Families First Program Risk Factors

DEFINITION: Newborns and their mothers in the Winnipeg Regional Health Authority (the Region) are visited by public health nurses within one week of discharge from hospital for birth and are assessed for family supports and challenges using the Families First Screening Form. This form collects information on mother's substance use (e.g., tobacco and alcohol use), mental health (e.g., depression and anxiety), and family socioeconomic status (e.g., mother's education and family's financial situation) during pregnancy and other risk factors that may be related to a child's development. The proportions of mothers with individual risk factors and combined risk factors (three or more of the five risk factors) during pregnancy are calculated.

NUMERATOR: Number of mothers in the Region with at least one risk factor.

DENOMINATOR: Number of mothers living in the Region with newborns.

CALCULATION: (Number of mothers with a risk factor/Number of mothers with newborns)×100.

DATA SOURCES: Healthy Child Manitoba Office, 2010/11

KEY FINDINGS:

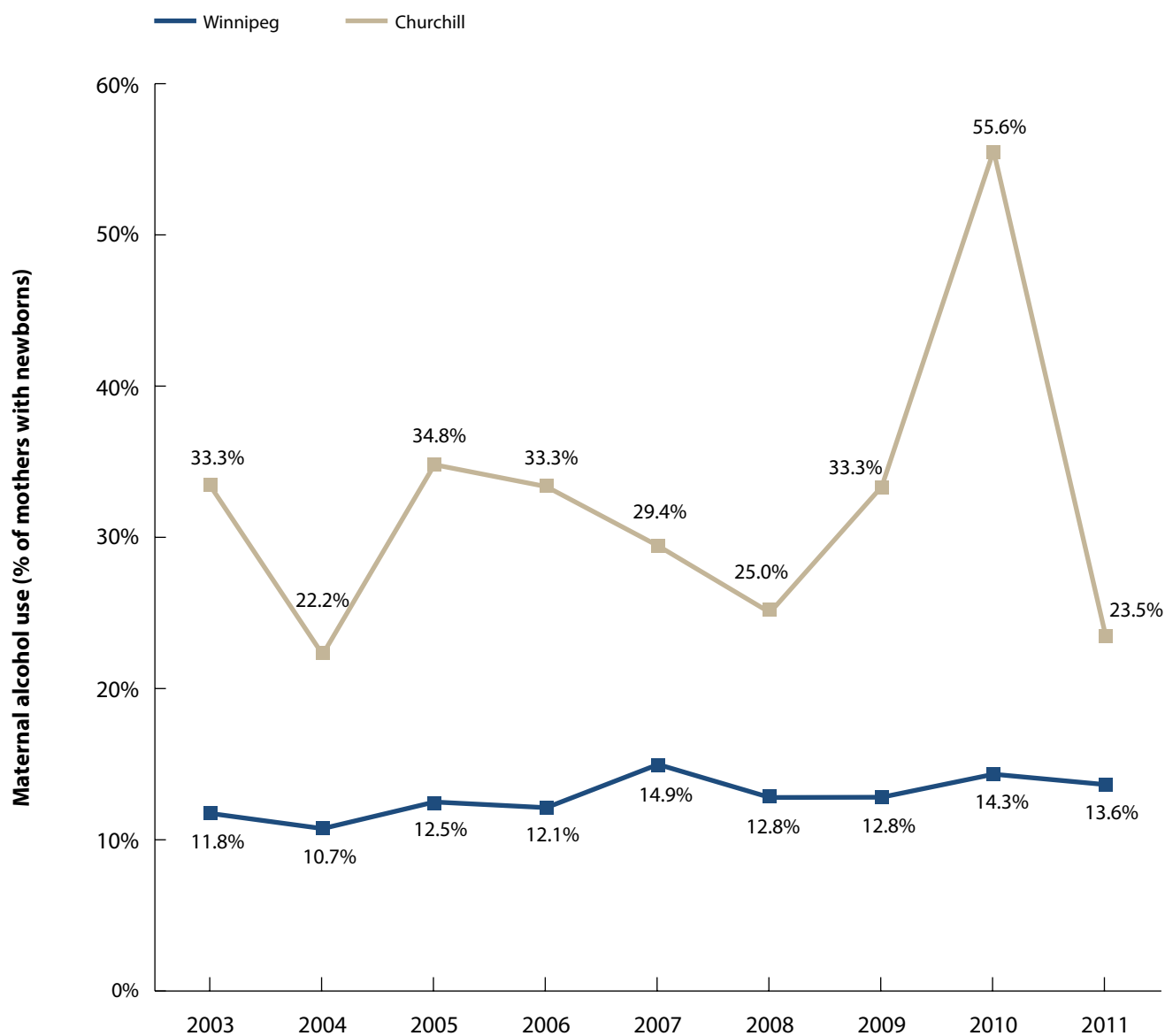
- Overall, the percentage of mothers who drank alcohol during pregnancy has increased slightly in Winnipeg and 13.6% of pregnant women drank alcohol in 2011; the percentage of mothers who drank alcohol during pregnancy in Churchill fluctuated but stayed relatively stable. Time trends varied by community area (CA). While the percentage declined between 2003 and 2011 in Assiniboine South, there was an increase in mothers drinking alcohol in other CAs (Fort Garry, Seven Oaks, St. Boniface, and River Heights). The percentages also varied by CA and there was a 4.7 times difference between the highest CA (25.5% in Point Douglas) and the lowest CA (6.6% in Assiniboine South) in 2011.
- The overall percentage of mothers who smoked during pregnancy in the Region has declined from 20.8% in 2003 to 16.6% in 2011. Percentages in the majority of Winnipeg CAs have declined as well. There was a 7.1 times difference across CAs in the Region (highest 40.7% and lowest 5.7%) in 2011.
- In 2011, 14.7% and 23.5% of pregnant women living in Winnipeg and Churchill had not completed high school, respectively. The percentages of those women not completing high school for two central Winnipeg CAs (Downtown and Point Douglas) increased during this time period. There were also substantial geographic differences in this indicator across the Region (10-fold difference).
- 19.7% of families/mothers with newborns and living in Winnipeg had financial difficulties in 2003. Improvements have been seen in River East, Downtown and Winnipeg overall (17.1% in 2011). The percentage significantly varied by community area and has been consistently higher in two central CAs (Point Douglas and Downtown).
- In 2011, 16.9% of mothers with newborns experienced anxiety/depression during pregnancy. All community areas had similar percentages, although some of them have slightly improved over the past years.
- When the five risk factors were analyzed together, 23.9% and 41.2% of pregnant women living in Winnipeg and Churchill in 2011 had three or more risk factors, respectively. In 2011, there was substantial geographic variation, with Point Douglas (51.8%) and Downtown (38.4%) community areas having the highest percentages and Fort Garry having the lowest (11.8%). Overall, there was no significant increase or decrease in the percentage of women with three or more risk factors; there was a decrease in this indicator in Churchill.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Families first risk factor screening helps to identify children at risk.
- A large number of newborns, especially those living in central areas of the Region, were prenatally exposed to one or more risk factors. These risk factors may have long term effects to the development and health of those children.

Figure A3.7.1.a1

Trends in Maternal Alcohol Use (% of mothers with newborns) in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a1

Maternal Alcohol Use (% of mothers with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

Maternal Alcohol Use (%) by Community Area (Percentage of mothers screened by the Family First Program, 2003–2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	14.4%	8.9%	6.4%	7.1%	9.9%	9.1%	5.0%	4.1%	6.6%	↓
Fort Garry	5.2%	2.9%	3.6%	4.4%	7.0%	6.2%	5.8%	7.8%	8.7%	↑
Transcona	7.6%	11.6%	13.0%	20.9%	15.3%	12.7%	13.4%	12.7%	9.7%	
St. Boniface	11.6%	14.9%	20.6%	18.8%	22.3%	24.5%	19.2%	22.0%	22.6%	↑
St. Vital	11.4%	8.7%	10.9%	8.8%	11.0%	10.5%	9.2%	11.5%	9.4%	
Seven Oaks	5.9%	9.5%	9.7%	9.5%	11.1%	11.0%	12.3%	15.0%	12.3%	↑
St. James-Assiniboia	4.1%	5.6%	7.0%	5.1%	10.1%	5.9%	9.6%	9.2%	7.6%	
Inkster	25.7%	20.5%	20.7%	16.4%	16.9%	17.4%	17.4%	21.4%	20.2%	
River East	11.0%	8.9%	12.3%	9.4%	14.0%	9.3%	8.6%	11.4%	10.5%	
River Heights	4.3%	3.4%	2.1%	2.6%	4.5%	5.1%	6.5%	8.0%	9.8%	↑
Point Douglas	22.9%	21.3%	20.4%	24.8%	29.3%	22.5%	26.1%	24.2%	25.5%	
Downtown	16.2%	13.1%	18.0%	16.7%	21.8%	17.6%	18.2%	18.8%	17.6%	
Winnipeg	11.8%	10.7%	12.5%	12.1%	14.9%	12.8%	12.8%	14.3%	13.6%	↑
Churchill	33.3%	22.2%	34.8%	33.3%	29.4%	25.0%	33.3%	55.6%	23.5%	

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011

Figure A3.7.1.a2

Trends in Maternal Smoking (% of mothers with newborns) in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a2

Maternal Smoking (% of mothers with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

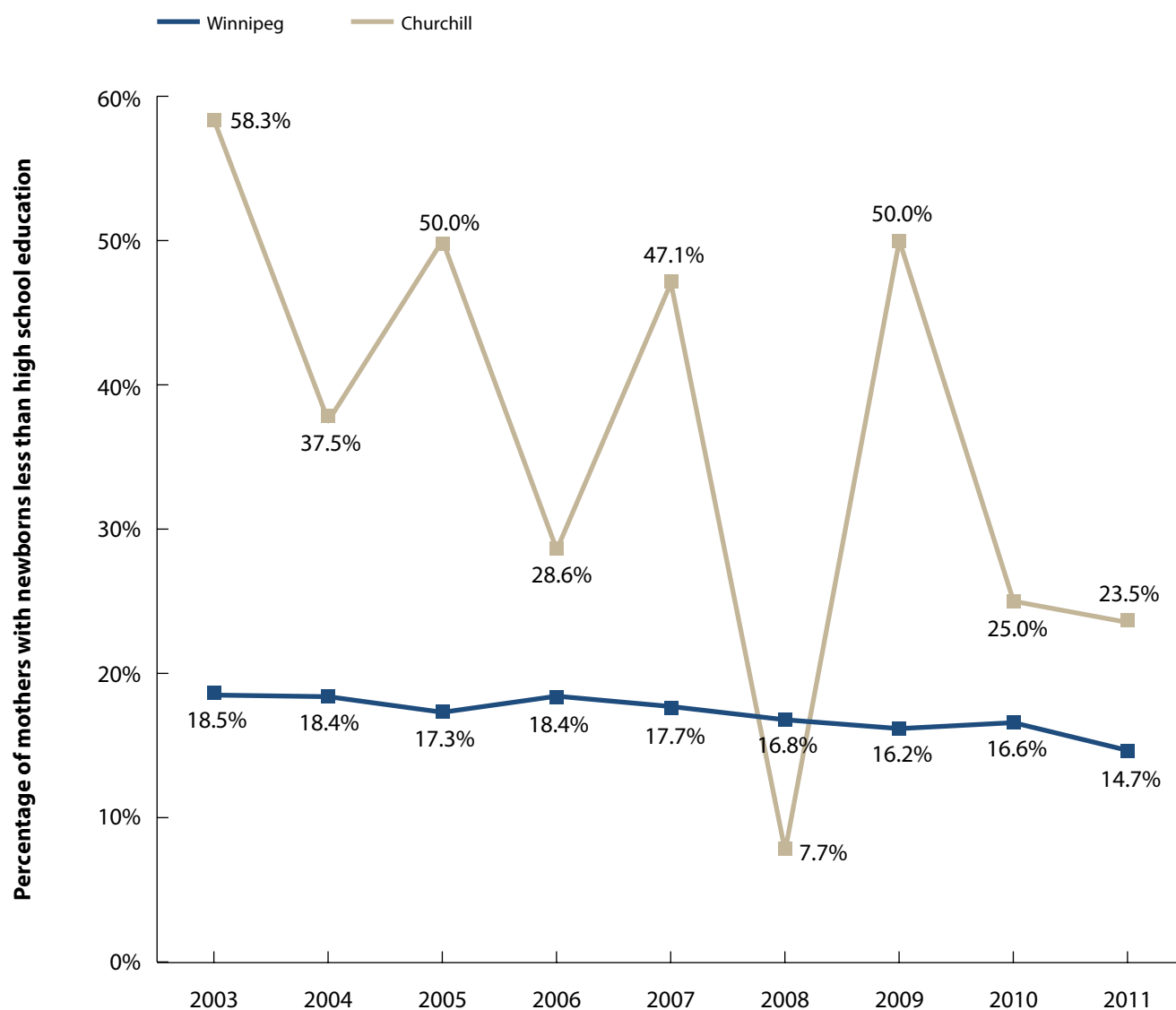
Maternal Smoking (%) by Community Area (Percentage of mothers screened by the Family First Program, 2003–2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	11.9%	10.2%	7.2%	13.0%	6.9%	10.7%	10.0%	8.8%	6.7%	
Fort Garry	8.2%	8.2%	7.0%	6.6%	5.5%	6.2%	7.1%	5.8%	5.7%	↓
Transcona	16.7%	22.4%	19.0%	18.1%	17.8%	13.4%	17.1%	12.3%	13.0%	↓
St. Boniface	11.0%	14.3%	12.4%	14.4%	15.0%	12.0%	11.2%	13.7%	14.6%	
St. Vital	13.4%	14.2%	13.1%	12.8%	11.6%	11.8%	9.0%	11.3%	11.2%	↓
Seven Oaks	16.8%	12.8%	15.7%	18.0%	13.1%	16.2%	12.4%	15.8%	11.6%	
St. James-Assiniboia	12.0%	14.6%	14.1%	13.0%	13.8%	12.1%	13.2%	13.9%	12.9%	
Inkster	31.3%	26.7%	31.6%	27.6%	26.8%	25.1%	24.5%	27.6%	25.1%	↓
River East	21.1%	21.6%	22.3%	22.9%	21.5%	22.1%	19.7%	20.6%	16.8%	
River Heights	10.9%	9.8%	11.0%	10.7%	10.3%	8.9%	10.5%	11.8%	11.0%	
Point Douglas	47.9%	45.3%	49.6%	42.8%	45.7%	40.2%	40.9%	43.2%	40.7%	↓
Downtown	31.7%	30.8%	31.1%	31.9%	31.9%	27.9%	27.8%	24.9%	23.9%	↓
Winnipeg	20.8%	20.5%	20.9%	20.5%	20.1%	18.4%	17.6%	18.4%	16.6%	↓
Churchill	58.3%	11.1%	26.1%	13.3%	29.4%	23.1%	55.6%	33.3%	17.6%	

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011

Figure A3.7.1.a3

Trends in the Percentage of Mothers of Newborns with Less Than High School (% of mothers with newborns) in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a3

Mothers of Newborns with Less Than High School (% of mother with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

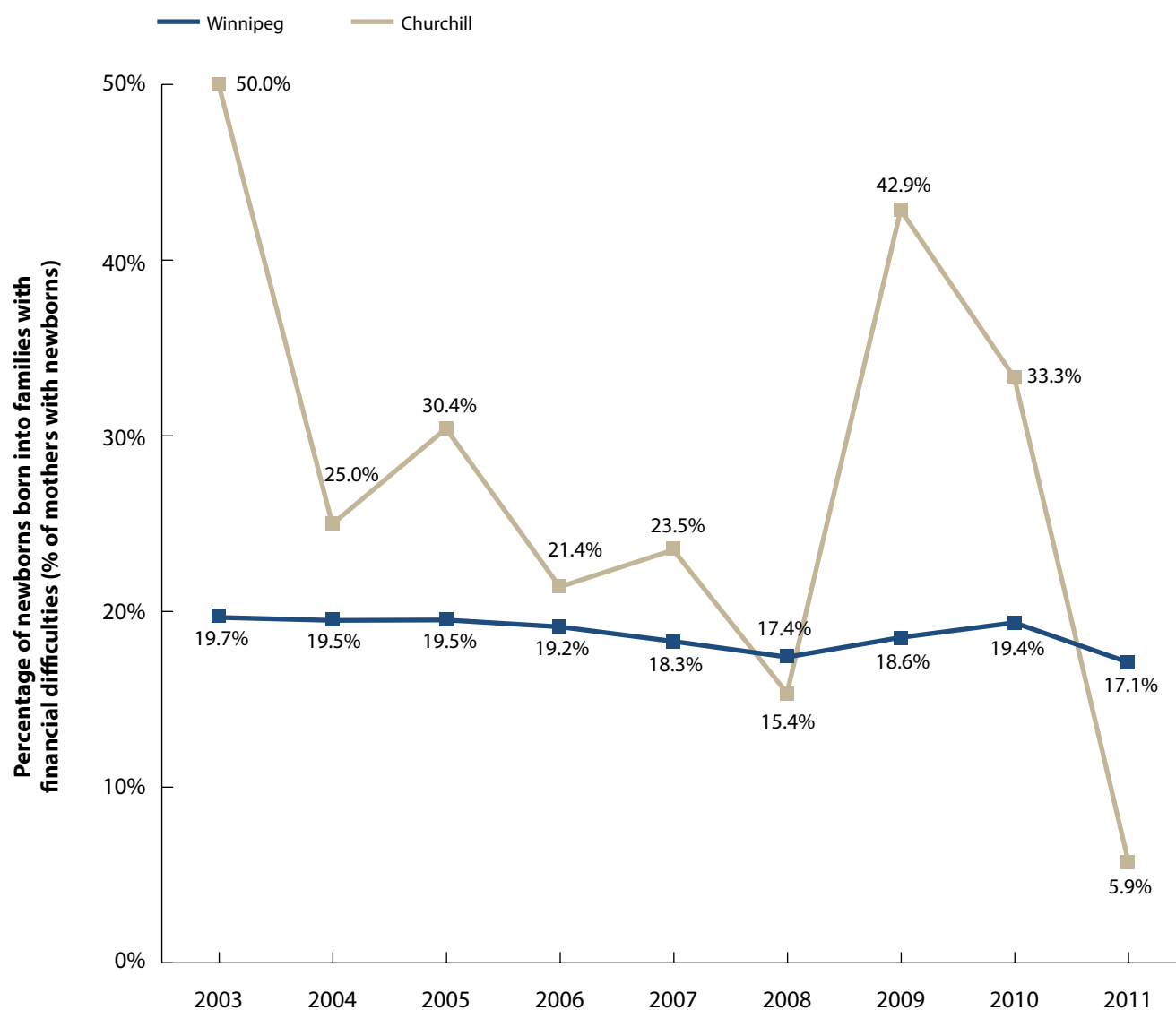
Newborns Born to Mothers with Less Than High School Education (%) by Community Area (Percentage of mothers screened by the Family First Program, 2003–2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	4.9%	7.7%	5.8%	9.6%	5.9%	7.9%	8.4%	7.8%	7.8%	
Fort Garry	5.1%	3.0%	5.4%	4.7%	3.3%	4.9%	4.4%	3.8%	5.1%	
Transcona	8.9%	10.7%	10.0%	10.3%	9.4%	12.5%	8.0%	7.1%	4.1%	
St. Boniface	5.8%	5.9%	9.3%	8.9%	7.5%	9.0%	7.0%	8.4%	7.7%	
St. Vital	9.3%	8.1%	8.0%	6.0%	6.1%	7.5%	6.2%	5.9%	8.3%	
Seven Oaks	11.1%	10.4%	10.3%	17.4%	11.0%	12.6%	12.7%	12.5%	10.8%	
St. James-Assiniboia	10.6%	9.7%	8.7%	10.5%	11.5%	9.9%	8.8%	8.4%	9.3%	
Inkster	27.8%	27.8%	28.0%	29.1%	28.4%	23.0%	28.6%	24.9%	23.2%	
River East	19.7%	16.3%	15.2%	18.1%	16.0%	14.9%	14.2%	17.8%	12.9%	
River Heights	7.6%	5.5%	5.3%	4.1%	5.4%	2.7%	4.2%	6.9%	6.4%	
Point Douglas	48.6%	51.8%	49.9%	45.0%	47.3%	46.0%	46.6%	43.9%	40.3%	↓
Downtown	37.6%	39.2%	33.0%	37.9%	38.9%	34.2%	35.2%	33.3%	30.3%	↓
Winnipeg	18.5%	18.4%	17.3%	18.4%	17.7%	16.8%	16.2%	16.6%	14.7%	↓
Churchill	58.3%	37.5%	50.0%	28.6%	47.1%	7.7%	50.0%	25.0%	23.5%	

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011

Figure A3.7.1.a4

Trends in the Percentage of Newborns Born to Families with Financial Difficulties in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a4

Percentage of Newborns Born into Families with Financial Difficulties (% of mothers with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

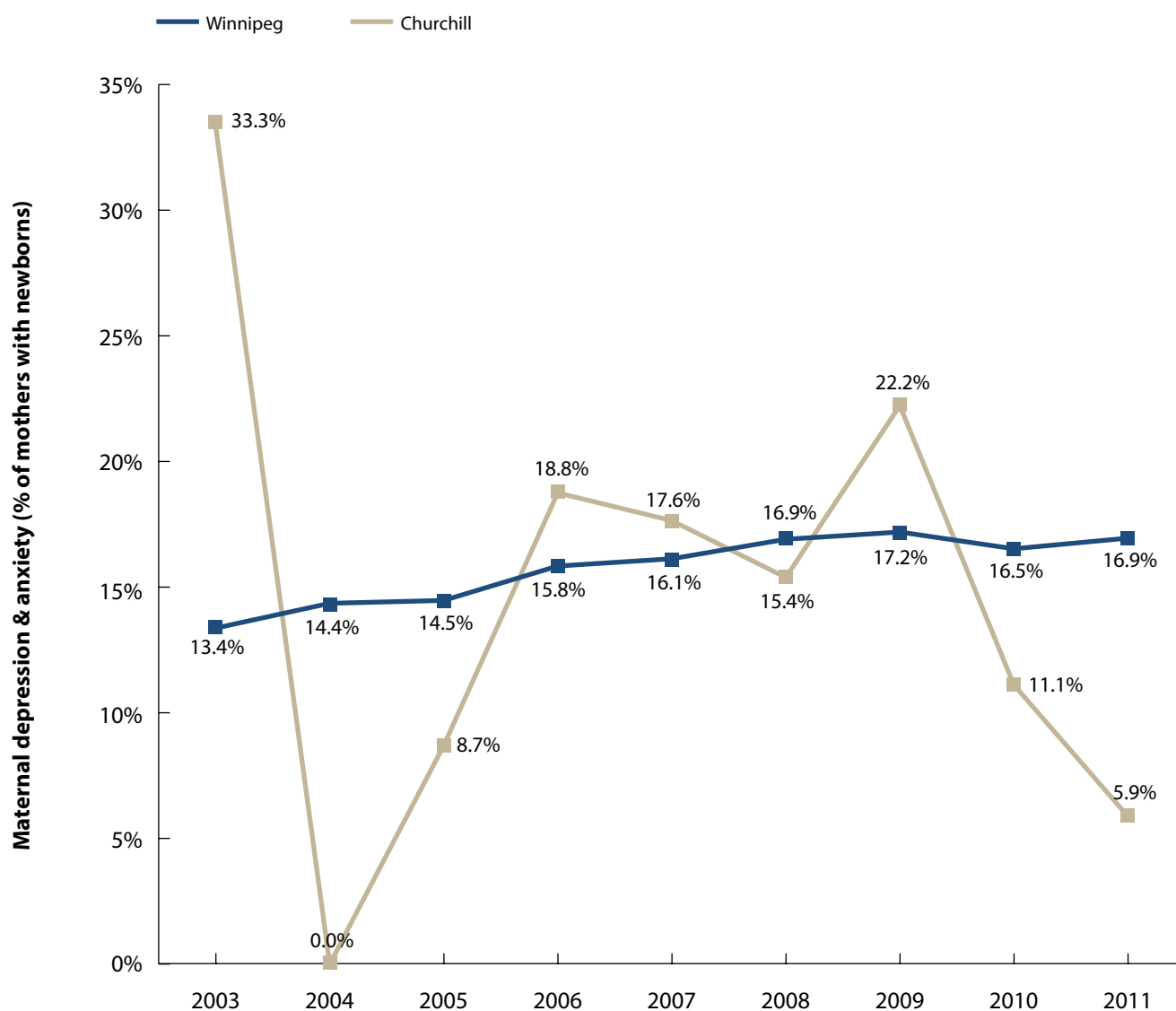
Newborns Born to Families with Financial Difficulties (%) by Community Area (Percentage of families/mothers screened by the Family First Program, 2003-2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	6.0%	8.6%	7.0%	10.5%	5.1%	8.0%	8.7%	10.8%	10.6%	
Fort Garry	8.2%	6.0%	9.7%	9.0%	9.0%	10.1%	8.8%	8.5%	6.9%	
Transcona	8.0%	8.6%	9.5%	11.8%	10.4%	8.8%	10.5%	9.6%	8.2%	
St. Boniface	8.3%	9.1%	12.4%	9.1%	9.0%	11.0%	10.4%	13.3%	10.1%	
St. Vital	10.2%	11.0%	10.8%	10.1%	8.5%	11.1%	9.2%	9.7%	10.6%	
Seven Oaks	12.0%	11.1%	12.7%	12.4%	11.1%	9.6%	11.4%	12.2%	10.5%	
St. James-Assiniboia	8.2%	13.1%	8.8%	9.5%	10.6%	10.9%	9.2%	10.1%	10.9%	
Inkster	26.4%	24.8%	27.5%	29.2%	24.8%	23.4%	29.5%	30.9%	27.6%	
River East	19.9%	17.4%	15.6%	17.0%	14.4%	13.2%	14.9%	15.4%	12.3%	↓
River Heights	9.7%	6.3%	9.5%	6.6%	9.8%	5.5%	10.0%	10.4%	8.9%	
Point Douglas	48.6%	48.4%	52.4%	47.4%	46.1%	44.3%	49.3%	47.5%	47.6%	
Downtown	42.5%	41.4%	37.8%	38.4%	40.1%	36.4%	39.2%	39.6%	34.7%	↓
Winnipeg	19.7%	19.5%	19.5%	19.2%	18.3%	17.4%	18.6%	19.4%	17.1%	↓
Churchill	50.0%	25.0%	30.4%	21.4%	23.5%	15.4%	42.9%	33.3%	5.9%	

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011

Figure A3.7.1.a5

Trends in Maternal Depression and Anxiety (% of mothers with newborns) in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a5

Maternal Depression & Anxiety Disorders (% of mothers with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

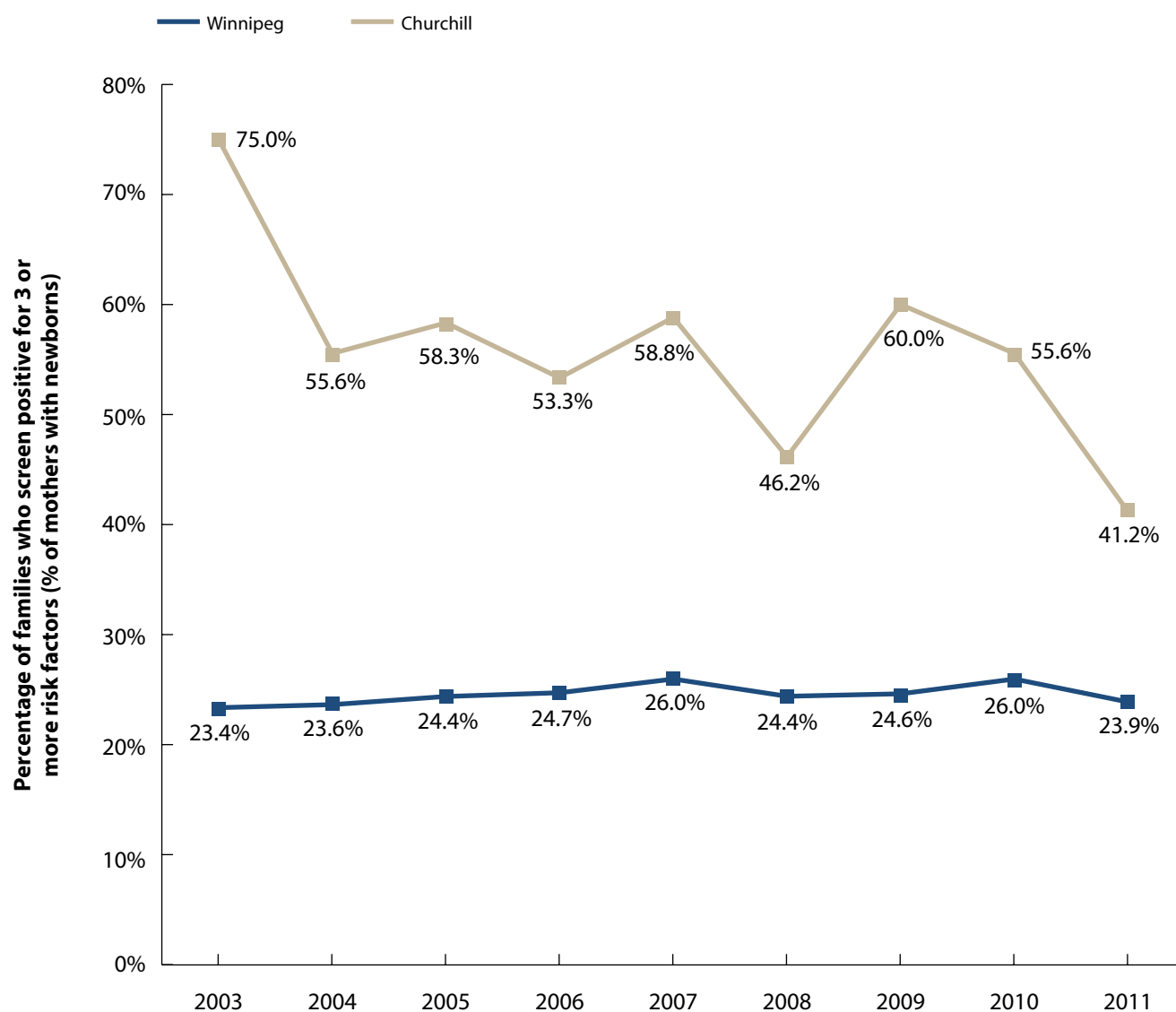
Maternal Depression & Maternal Anxiety Disorders Prevalence (%) by Community Area (Percentage of mothers of newborns screened by the Family First Program, 2003–2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	14.2%	13.4%	13.2%	13.0%	15.0%	18.1%	15.7%	16.1%	16.2%	↑
Fort Garry	13.0%	13.9%	13.3%	15.9%	12.4%	14.4%	15.9%	12.8%	13.6%	
Transcona	13.5%	15.6%	12.8%	18.6%	20.2%	18.1%	22.1%	20.5%	21.3%	↑
St. Boniface	17.7%	18.0%	23.9%	21.1%	18.9%	23.0%	17.0%	18.4%	19.5%	
St. Vital	11.6%	15.3%	14.6%	15.4%	18.3%	18.8%	14.4%	12.3%	15.6%	
Seven Oaks	13.1%	13.6%	11.7%	14.6%	15.0%	11.4%	13.4%	13.2%	12.5%	
St. James-Assiniboia	10.1%	13.0%	13.1%	14.4%	11.4%	15.7%	13.3%	15.8%	17.3%	↑
Inkster	14.7%	13.7%	17.0%	14.3%	11.3%	16.3%	17.7%	14.1%	15.2%	
River East	15.1%	17.3%	16.3%	17.4%	18.2%	17.8%	19.2%	17.5%	17.3%	
River Heights	13.3%	13.2%	11.6%	17.4%	16.3%	17.0%	20.0%	20.2%	20.0%	↑
Point Douglas	20.0%	17.9%	21.3%	20.2%	18.3%	21.1%	23.4%	21.2%	21.7%	↑
Downtown	16.5%	17.7%	16.6%	18.1%	23.4%	19.3%	20.8%	19.9%	17.9%	
Winnipeg	13.4%	14.4%	14.5%	15.8%	16.1%	16.9%	17.2%	16.5%	16.9%	↑
Churchill	33.3%	0.0%	8.7%	18.8%	17.6%	15.4%	22.2%	11.1%	5.9%	

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011

Figure A3.7.1.a6

Trends in the Percentage of Families Who Screen Positive for 3 or More Risk Factors (% of mothers with newborns) in Winnipeg & Churchill, 2003–2011



Source: Healthy Child Manitoba Office, 2010/11

Table A3.7.1.a6

Percentage of Families Who Screen Positive for 3 or More Risk Factors (% of mothers with newborns) in Winnipeg Community Areas & Churchill, 2003–2011

Positive Families First Screen (% with three and more risk factors) by Community Area (Percentage of mothers screened by the Family First Program, 2003–2011)										
Community Area	Birth Year									Time trend*
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Assiniboine South	13.1%	13.9%	9.5%	12.3%	6.6%	12.8%	11.7%	17.1%	12.1%	
Fort Garry	8.3%	7.3%	8.8%	11.6%	10.2%	11.6%	11.0%	10.6%	11.8%	↑
Transcona	15.6%	16.5%	14.1%	20.3%	17.9%	18.2%	20.3%	16.2%	13.7%	
St. Boniface	14.2%	15.9%	19.7%	18.5%	18.5%	25.6%	17.8%	22.4%	20.6%	
St. Vital	16.7%	15.0%	14.7%	15.2%	12.4%	14.8%	15.1%	14.7%	17.5%	
Seven Oaks	14.2%	16.1%	16.8%	18.5%	20.8%	18.0%	18.9%	20.5%	17.3%	
St. James-Assiniboia	12.7%	19.4%	16.1%	15.6%	17.1%	18.2%	17.9%	18.4%	18.7%	
Inkster	35.9%	29.8%	38.8%	37.0%	37.9%	30.7%	34.9%	38.2%	33.0%	
River East	22.1%	21.0%	21.3%	23.5%	25.2%	21.8%	19.9%	24.8%	21.3%	
River Heights	12.6%	11.6%	14.2%	11.5%	15.0%	10.2%	16.3%	18.1%	16.5%	
Point Douglas	54.9%	55.1%	58.1%	54.0%	58.6%	52.8%	54.6%	54.4%	51.8%	
Downtown	40.4%	40.6%	39.3%	40.8%	44.0%	38.9%	42.5%	40.0%	38.4%	
Winnipeg	23.4%	23.6%	24.4%	24.7%	26.0%	24.4%	24.6%	26.0%	23.9%	
Churchill	75.0%	55.6%	58.3%	53.3%	58.8%	46.2%	60.0%	55.6%	41.2%	↓

Source: Healthy Child Manitoba Office, 2010/11

*Linear time trends for the percentages between 2003 and 2011



Indicator: Teen Pregnancy

DEFINITION: The proportion of live and still births, abortions, or ectopic pregnancies in hospital data for females aged 15 to 19 years per fiscal year. The proportions are not age-adjusted.

NUMERATOR: The number of Winnipeg Regional Health Authority (the Region) females aged 15 to 19 years with one or more of the hospitalization codes for pregnancy over five fiscal years: live birth, abortion, ectopic pregnancy, and stillbirth in each of three fiscal years: 2010/11, 2011/12 and 2012/13.

DENOMINATOR: Total female population in the Region aged 15 to 19 years during the same time periods.

CALCULATION: (Number of females aged 15-19 years with live births, still births, abortions or ectopic pregnancies / Number of females aged 15-19) × 1,000.

DATA SOURCE: Manitoba Health, 2013

KEY FINDINGS:

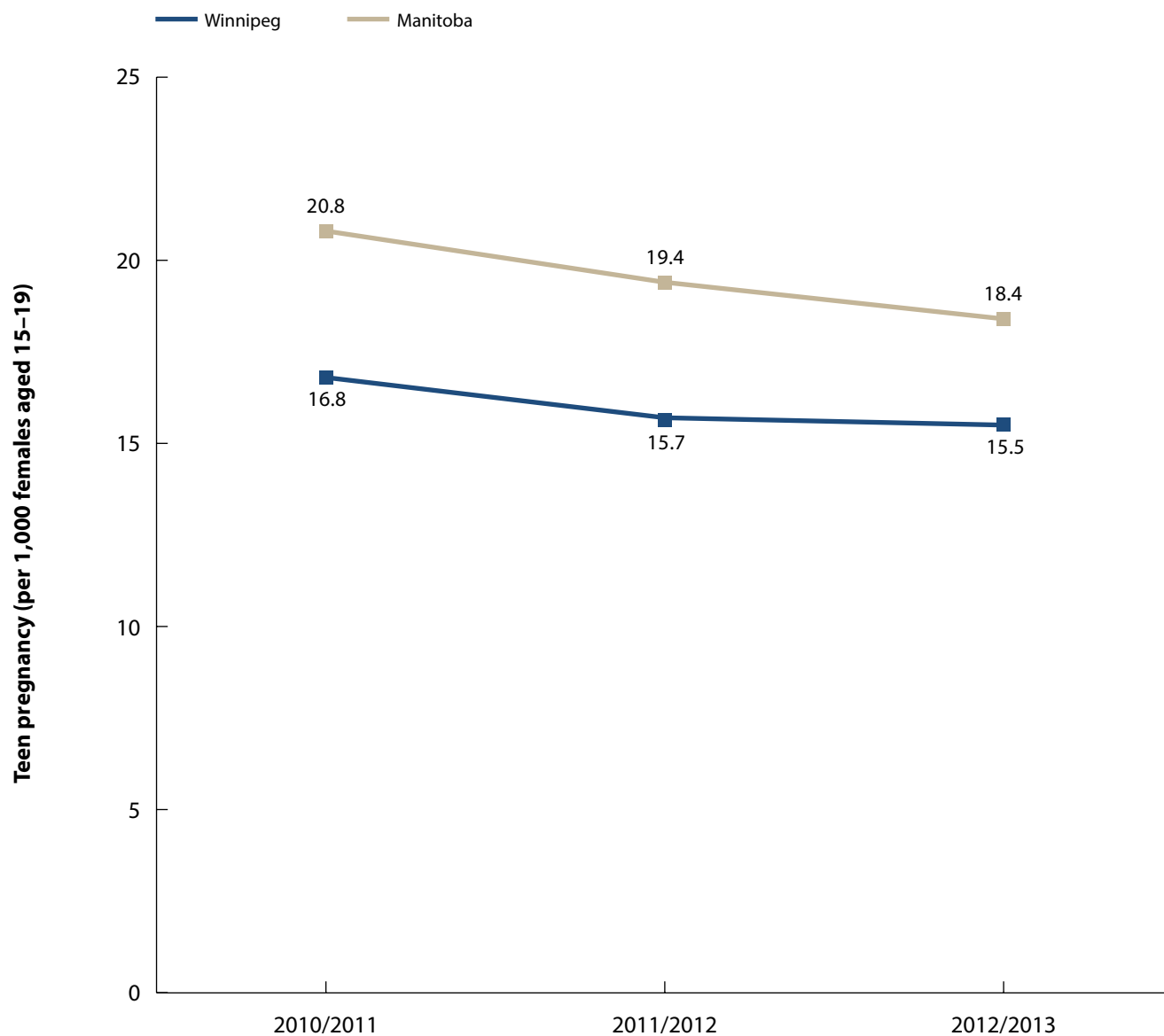
- The proportion of teen pregnancy in the Region has declined, from 16.8 pregnancies per 1,000 teens in 2010/11 to 15.5 pregnancies per 1,000 teens in 2012/13.
- The proportion varied across the Region: teen females aged 15-19 in three specific community areas (CAs) (Downtown, Point Douglas, Inkster) are more likely to be pregnant at any one time.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Even though the occurrence of teen pregnancy has decreased significantly across the Region, it is still a significant challenge in some communities.
- Pregnant teenagers are less likely to receive early prenatal care and more likely to experience adverse birth outcomes including premature birth and low birth weight.
- It is important for these women to receive early prenatal care, adopt healthy behaviours, and receive relevant supports.

Figure A3.7.2.a1

Trends in Teen Pregnancy in Winnipeg & Manitoba, 2010/11–2012/13

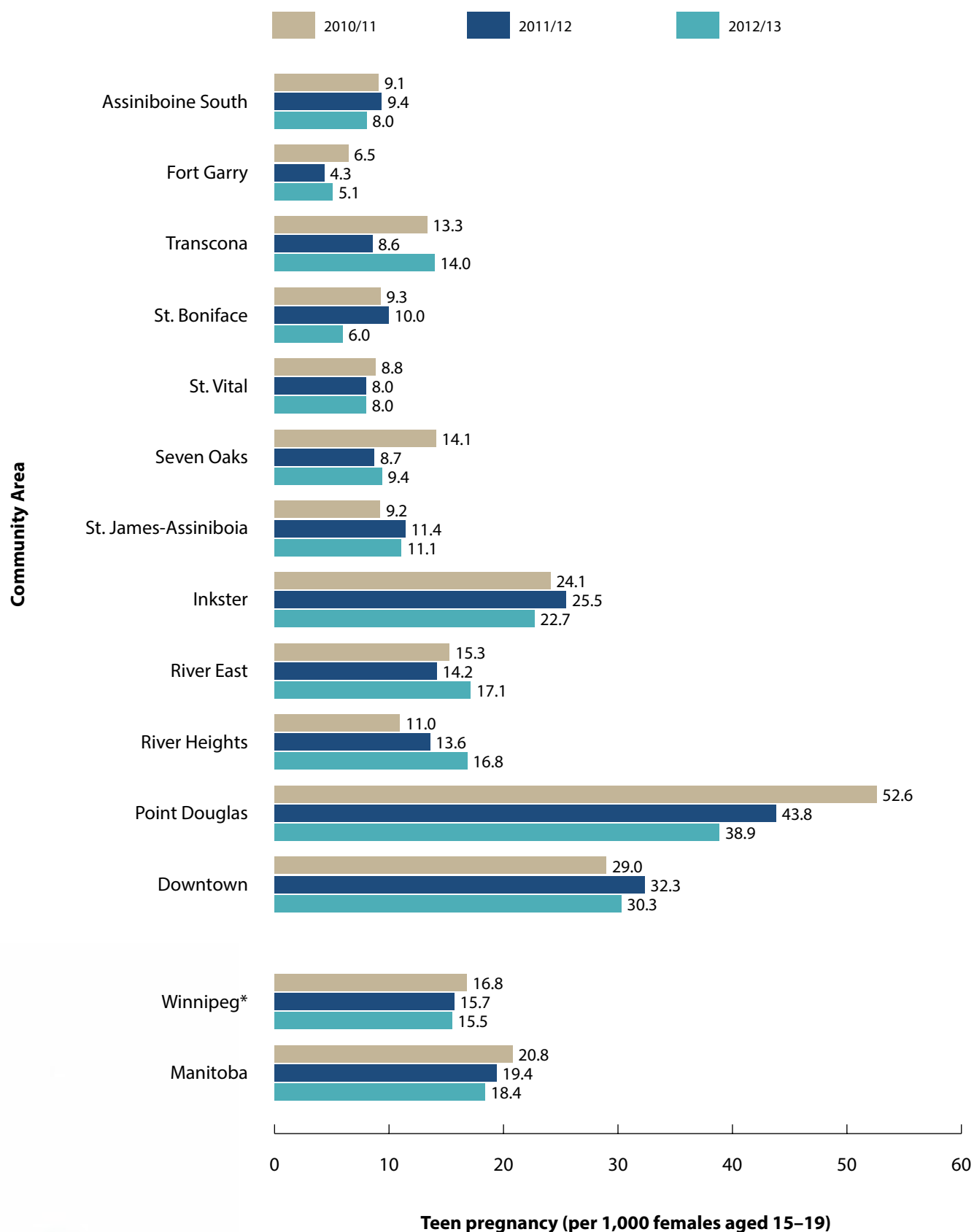


Source: Manitoba Health, 2013

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.7.2.a2

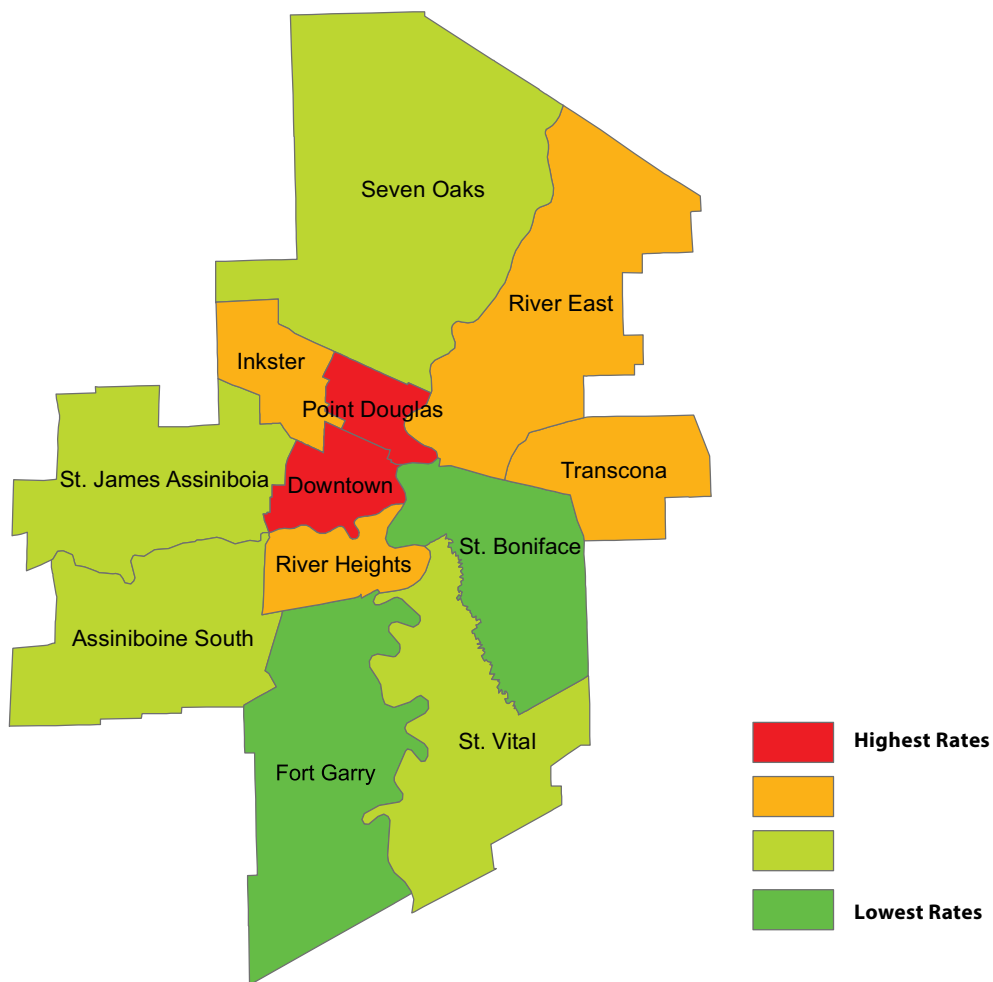
Teen Pregnancy (per 1,000 females aged 15 to 19) by Winnipeg Community Area, 2010/2011 to 2012/2013



Source: Manitoba Health, 2013

*Churchill's rates were suppressed due to small cell sizes

Teen Pregnancy (per 1,000 females aged 15 to 19) by Winnipeg Community Area, 2012/2013



Source: Manitoba Health, 2013



Indicator: Teen Birth

DEFINITION: Teen birth rates are calculated as the ratio of live births by females aged 15 to 19 years to the total female population of the same age.

NUMERATOR: The number of live births in the Winnipeg Regional Health Authority (the Region) by females aged 15-19 years in each of three fiscal years: 2010/11, 2011/12 and 2012/13.

DENOMINATOR: Total female population in the Region aged 15 to 19 years during the same time periods.

CALCULATION: (Number of live births by females aged 15-19 years/ Number of females aged 15-19 years) × 1,000

DATA SOURCE: Manitoba Health, 2013

KEY FINDINGS:

- The teen birth rate in the Region has declined from 10.1 births per 1,000 teen females in 2010/11 to 8.9 birth per 1,000 teen females in 2012/13.
- Overall, communities in the central area of the Region (Downtown and Point Douglas community areas or CAs) had the highest teen birth rates. The rates in the CAs of Point Douglas, Downtown, and Inkster were higher than the Winnipeg average.

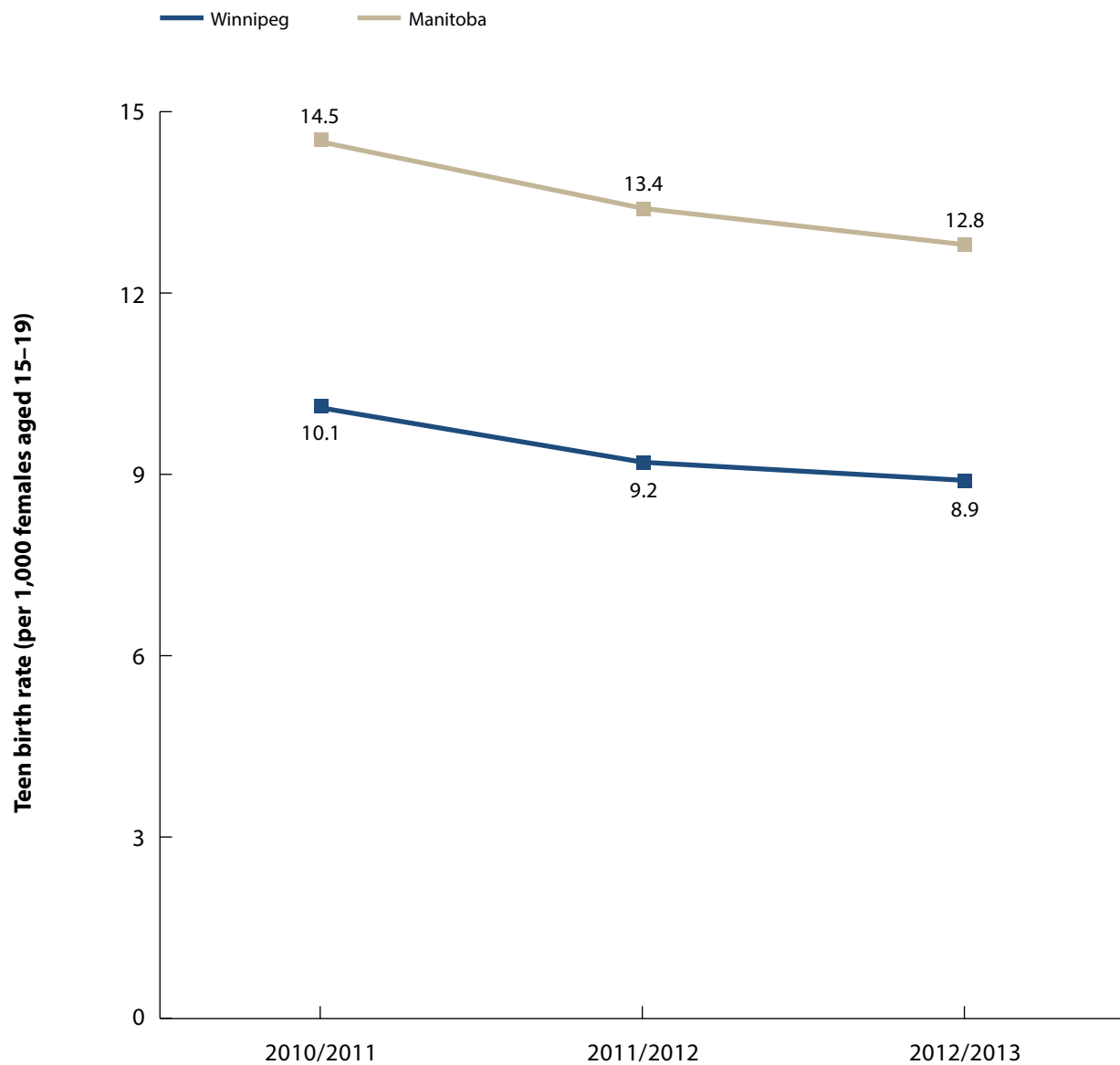
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Children born to teen mothers are at higher risk of adverse health outcomes than those born to adult mothers.¹
- Although the overall teen birth rate has declined, its occurrence is still a significant challenge in some communities. Public policies need to not only address prevention issues but also provide supports to those children born to teen mothers.

¹ Jaffee S, Caspi A, Moffitt TE, Belsky J, Silva P. Why are children born to teen mothers at risk for adverse outcomes in young adulthood? Results from a 20-year longitudinal study. *Dev Psychopathol.* 2001 Spring;13(2):377-97.

Figure A3.7.3.a1

Trends in Teen Birth Rates in Winnipeg & Manitoba, 2010/11–2012/13

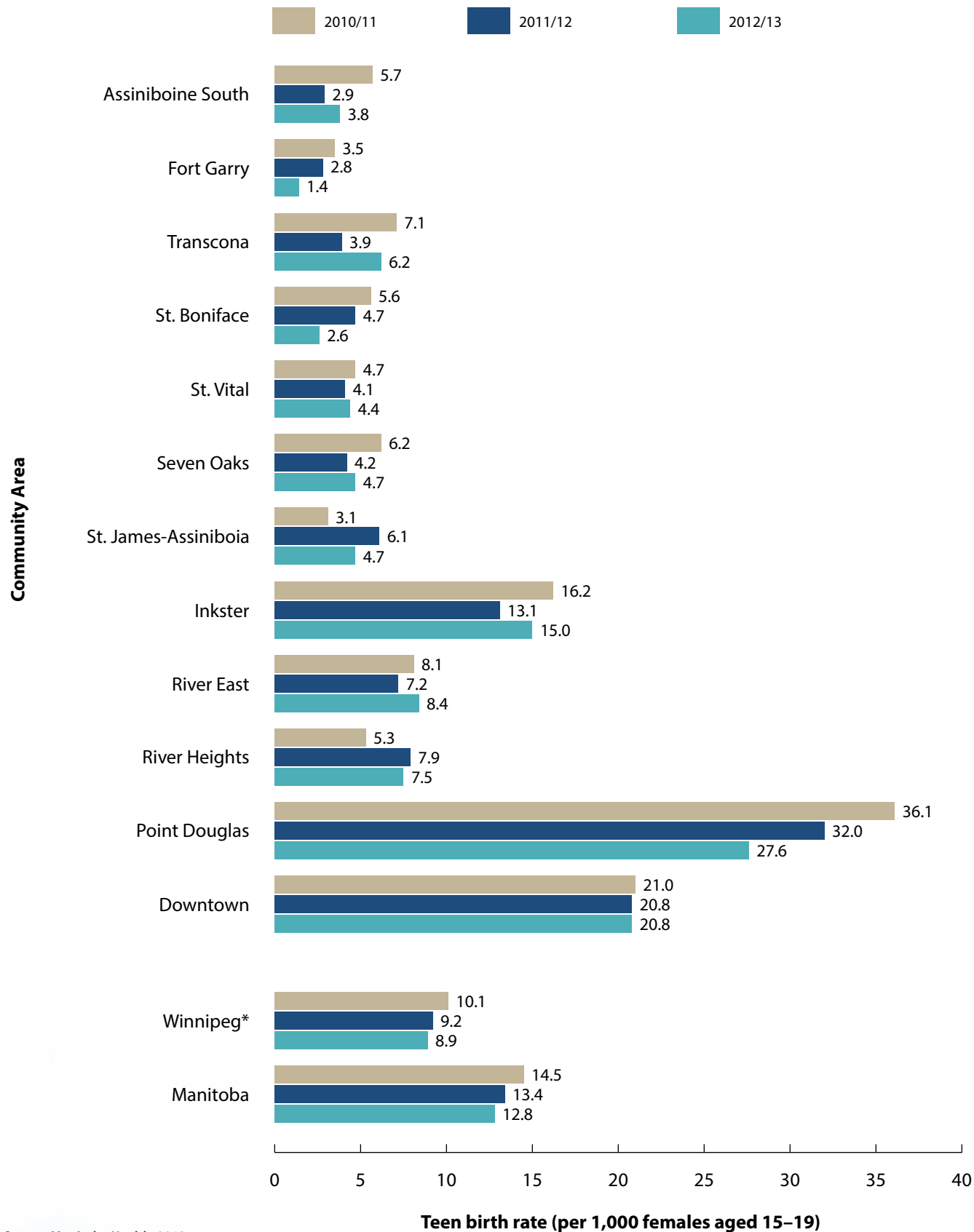


Source: Manitoba Health, 2013

**The following chart of Community Area is ordered by decreasing median household income.

Figure A3.7.3.a2

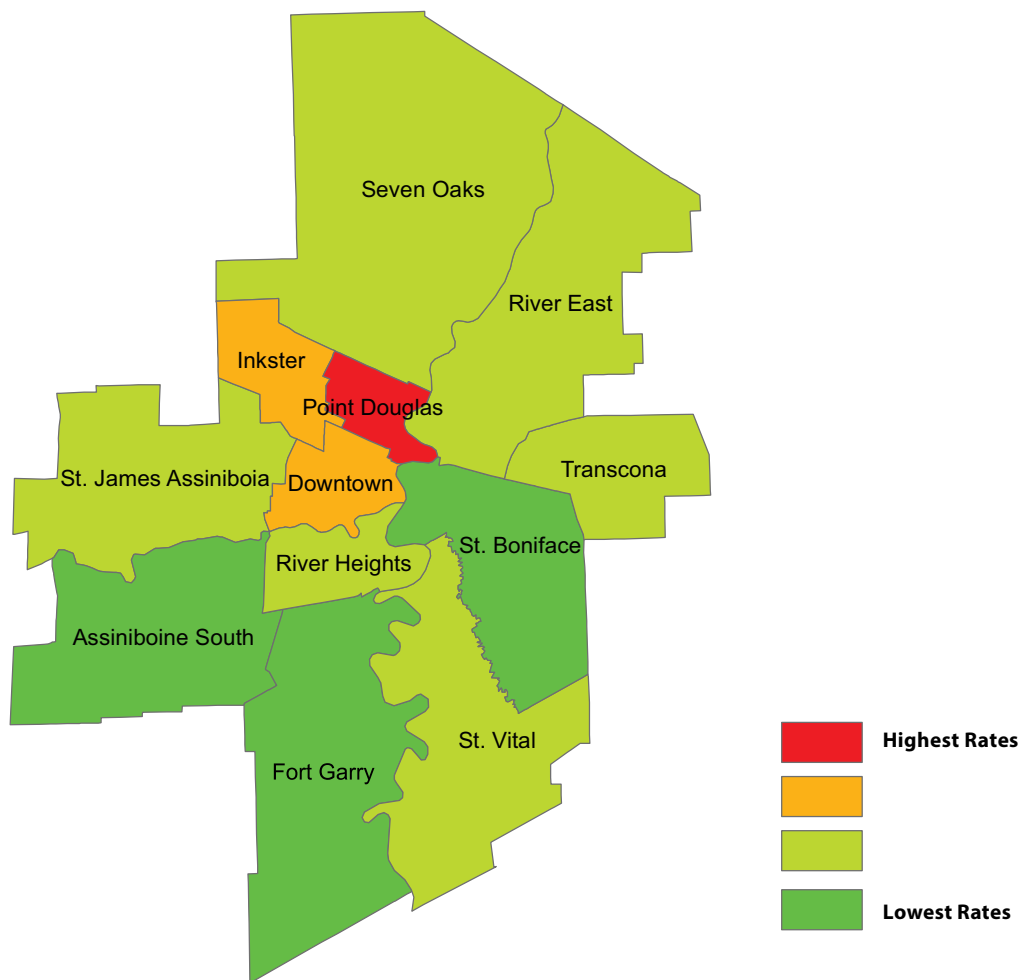
Teen Live Birth Rates (per 1,000 females aged 15 to 19) by Winnipeg Community Area, 2010/2011 to 2012/2013



Source: Manitoba Health, 2013

*Churchill's rates were suppressed due to small cell sizes

Teen Live Birth Rates (per 1,000 females aged 15 to 19) by Winnipeg Community Area, 2012/2013



Source: Manitoba Health, 2013



Indicator: Preterm Birth

DEFINITION: The proportion of preterm births defined as live births with a gestational age of less than 37 weeks among all live births. Preterm births are categorized as early preterm (less than 34 weeks) and late preterm (34 to 36 weeks). Stillbirths were excluded from the analysis.

NUMERATOR: Number of Winnipeg Regional Health Authority (the Region) preterm births (i.e., live births with a gestational age of less than 37 weeks) in a given time period.

DENOMINATOR: Number of all live births in the Region in that time period.

CALCULATION: (Number of preterm births / Number of all live births) × 100. Proportions were not age-adjusted.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2012

KEY FINDINGS:

- 8.1% of babies are born prematurely in the Region.
- The proportion of preterm births was highest in Downtown (10.4%) and Point Douglas (10.1%) community areas (CAs) and lowest in Fort Garry (6.7%) and River Heights (6.7%) CAs.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

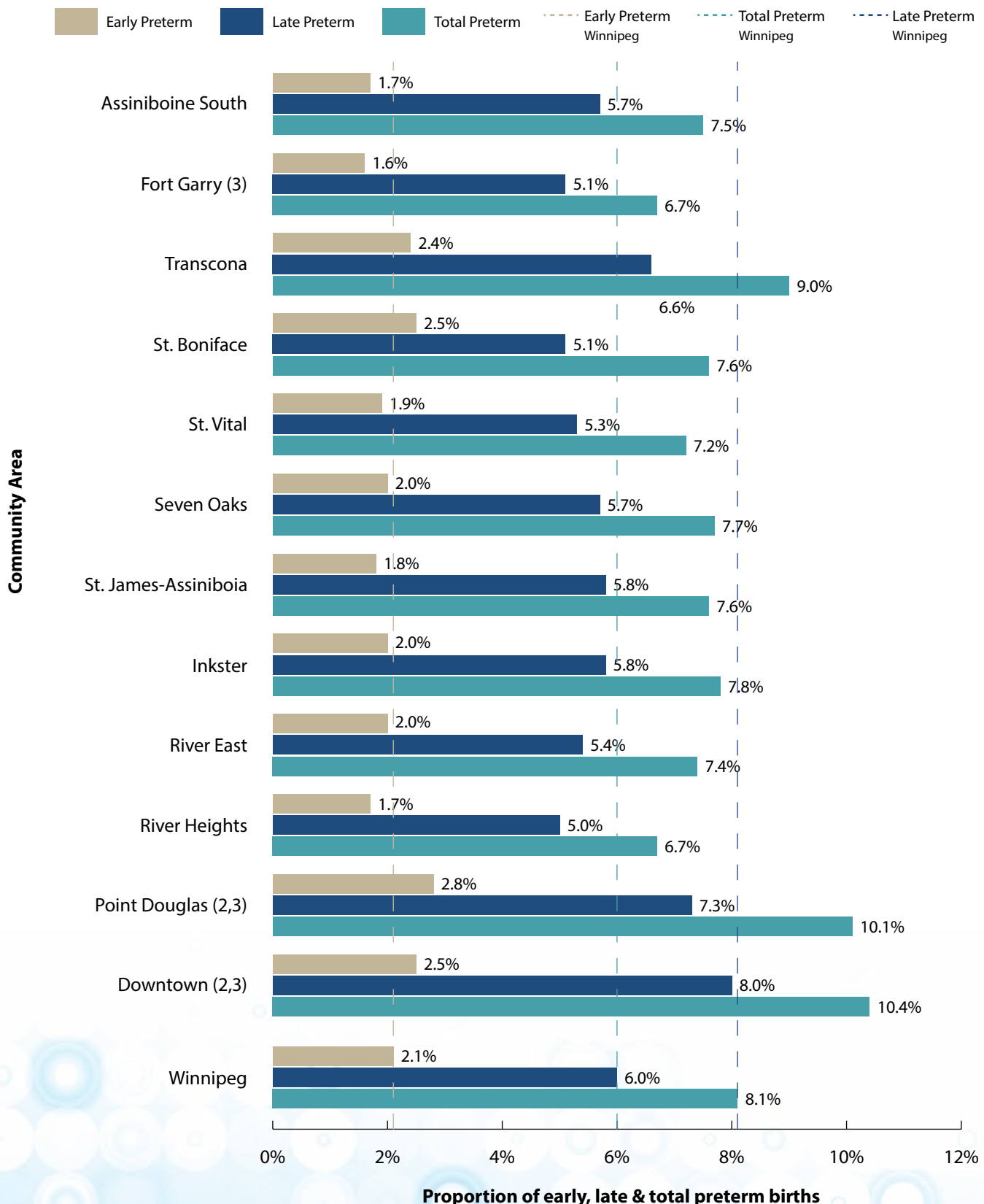
- The proportion of preterm birth in Winnipeg and Manitoba is similar to the national average.¹
- Preterm birth remains an important public health challenge to the Region and other health regions across the country. “Preterm birth is the leading cause of neonatal and infant mortality in industrialized countries and accounts for a substantial portion of all neonatal morbidity”.²
- The proportion of preterm birth in Canada has increased from 6.4% in 1981 and the main contributors include a higher proportion of older mothers giving birth, an increase in the number of multiple births, and increased rates of obstetric intervention (i.e., cesarean births and elective inductions).²

¹ Canadian Institute for Health Information. *Highlights of 2010–2011 Selected Indicators Describing the Birthing Process in Canada*. Ottawa, 2012.

² Public Health Agency of Canada. *Canada Perinatal Health Report, 2008 Edition*. Ottawa, 2008

Figure A3.7.4.a1

Crude Proportion of Early (33 weeks or less), Late (34–36 weeks), & Total (less than 37 weeks) Preterm Births by Winnipeg Community Area, 2005/06–2008/09

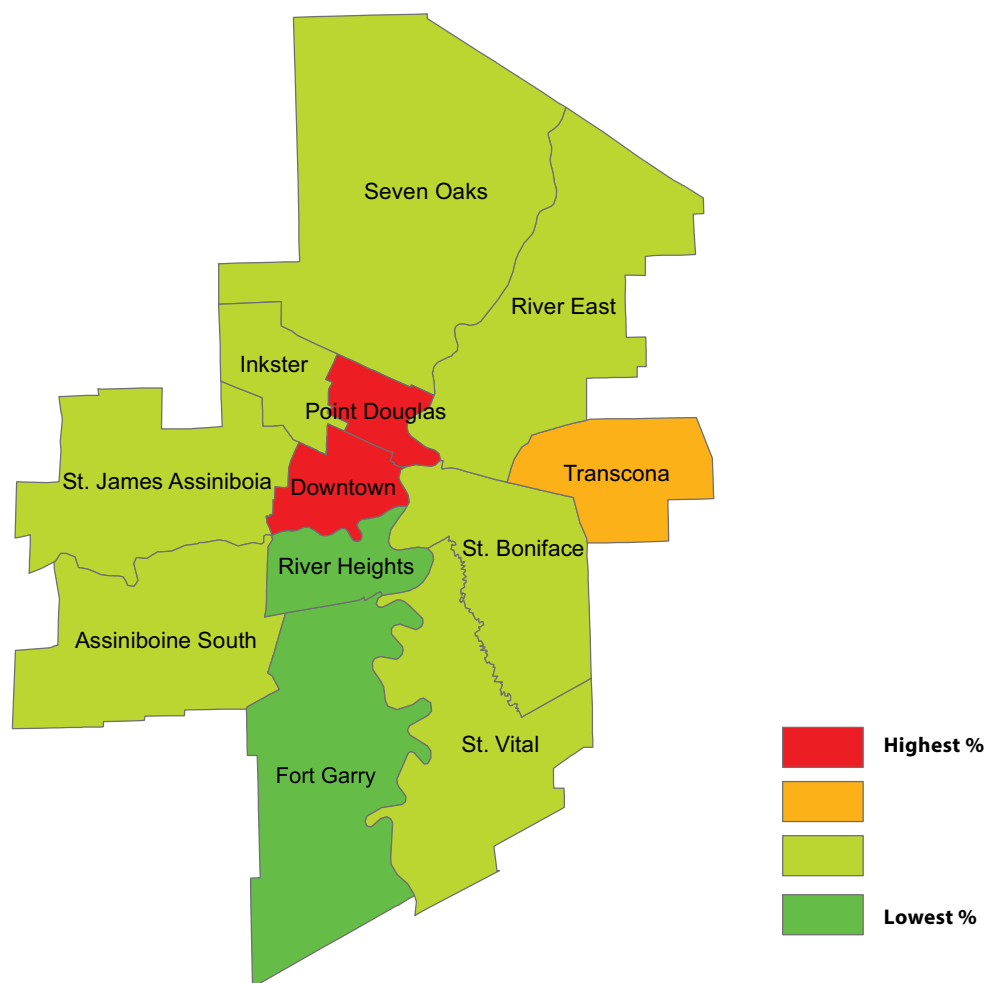


Source: Manitoba Centre for Health Policy, 2012

'2' indicates the area's Late Preterm rate was statistically different from the Winnipeg Late Preterm rate ($p < 0.01$)

'3' indicates the area's Total Preterm rate was statistically different from the Winnipeg Total Preterm rate ($p < 0.01$)

Crude Proportion of All Preterm Births by Winnipeg Community Area, 2005/06–2008/09



Source: Manitoba Centre for Health Policy, 2012



Indicator: Birth Weight

DEFINITION: Birth weights of all live births in a specific time period are recorded and three measures are derived. In the Community Health Assessment only one of the measures is reported—low birth weight (LBW):

- **Low birth weight (LBW):** The percent of low birth weight infants. Low birth weight is defined as any infant who weighs between 500 and 2,499 grams at the time of birth. Live born infants weigh under 500 grams (very low birth weights) were not included.
- **Small—for—gestational—age (SGA):** Birth weight below the standard 10th percentile in birth weight from an infant population of the same sex and gestational age.
- **Large—for—gestational—age (LGA):** Birth weight above the 90th percentile in birth weight from an infant population of the same sex and gestational age.

NUMERATOR: Number of live births in the Winnipeg Regional Health Authority (the Region) defined as LBW.

DENOMINATOR: Number of all live births in the Region.

CALCULATION: Crude proportions were calculated for two five-year time periods: 2002/2003-2006/2007 and 2007/2008-2011/2012.

DATA SOURCE: Manitoba Health, 2013

KEY FINDINGS:

- ◉ During the period 2007/2008-2011/2012, 5.8% of live born infants weighed between 500 and 2,499 grams. The percentage has been stable in Winnipeg. There is some geographical variation in the Region: community areas (CAs) Downtown, Point Douglas, and Seven Oaks had higher than Manitoba average percentages.
- ◉ Lower household income was associated with a higher proportion of low birth weight in infants. During 2007/2008-2011/2012, women in the lowest income CAs were 25% more likely to have a low birth weight baby.
- ◉ During 2007/08–2008/09, 8.2% of infants were SGA and 13.2% were LGA (Manitoba Centre for Health Policy (MCHP), 2012) but were not reported by Winnipeg CA.

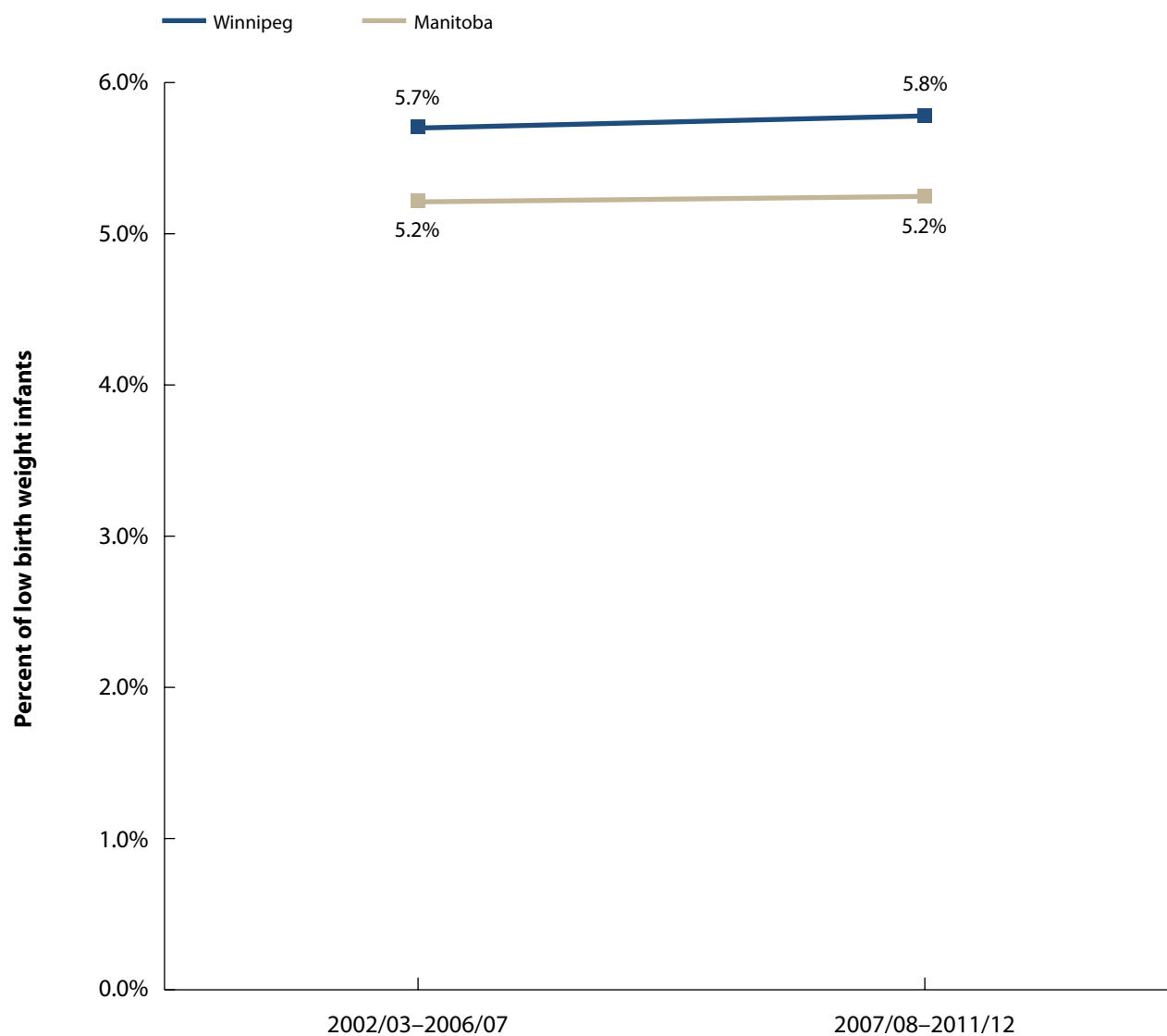
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- ◉ Caution is warranted when comparing these percentages of low birth weight with those percentages found in other reports because definitions of LBW may differ, i.e., birth weight less than 2,500 grams, between 500 and 2,499 grams, and between 1,500 and 2,499 grams have been used to define low birth weight.
- ◉ Low birth weight (less than 2,500 grams) is an often-used indicator of infant health but the major limitation of this indicator is that gestational age is not taken into account.
- ◉ SGA is a more accurate measure of fetal growth since gestational age is taken into account in its calculation.

Figure A3.7.5.a1

Trends in Low Birth Weight Infants in Winnipeg & Manitoba

Crude annual rate per 100 live infants per year, 2002/03–2011/12

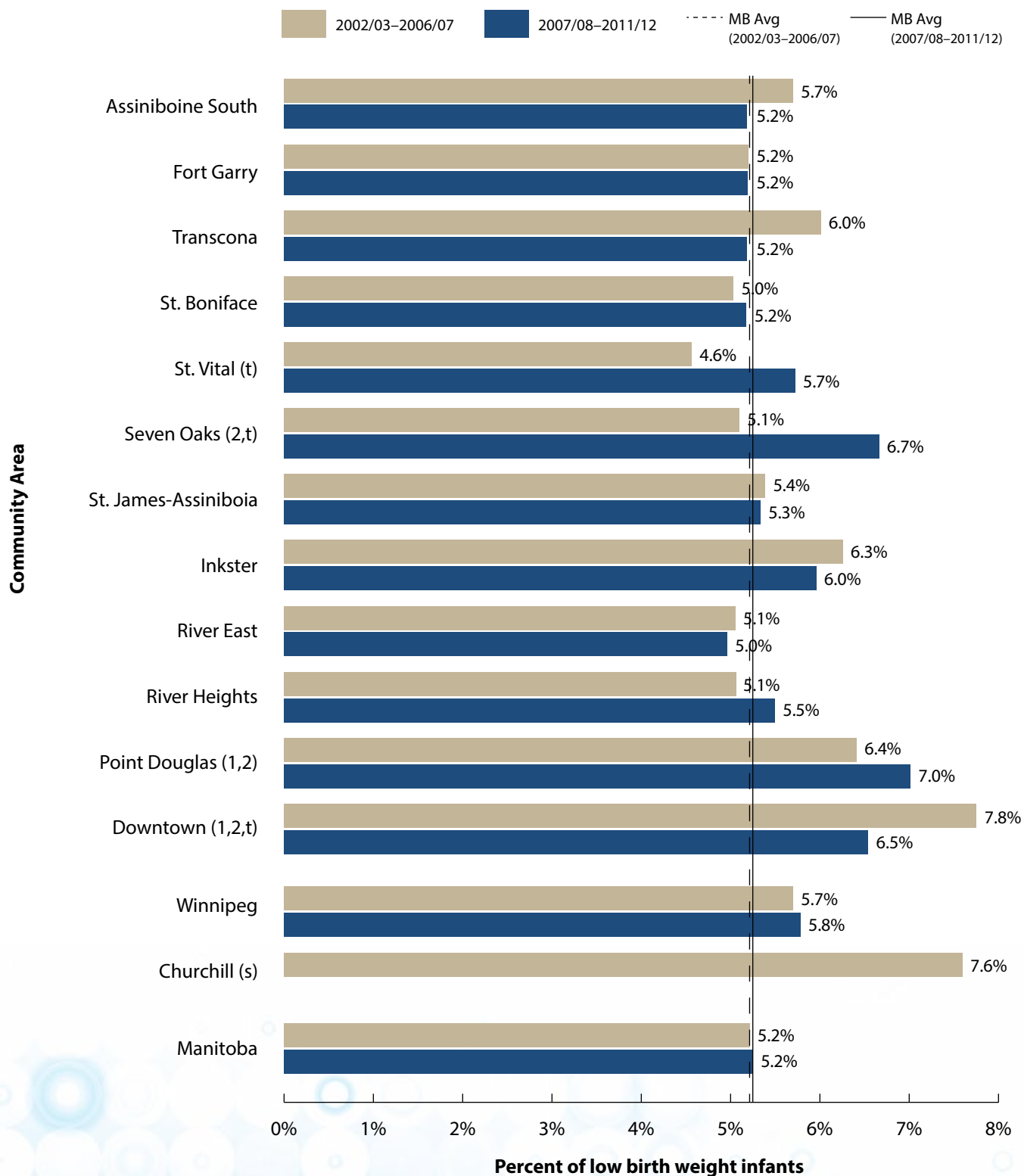


Source: Manitoba Health, 2013

Figure A3.7.5.a2

Low Birth Weight Infants by Winnipeg Community Area

Crude annual rate per 100 live infants per year, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Health, 2013

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

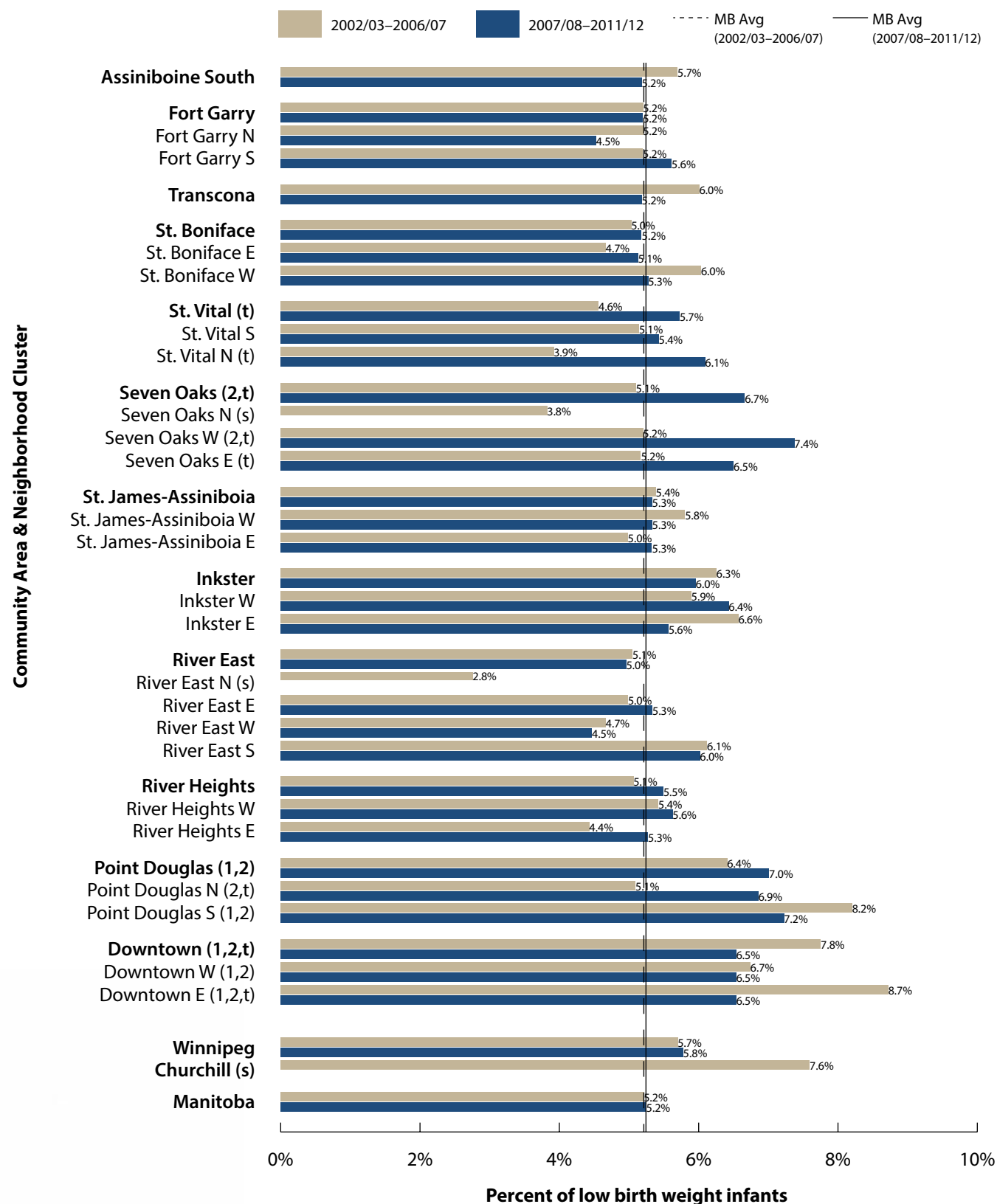
't' indicates change over time was statistically significant for that area

's' indicates data suppressed due to small numbers

Figure A3.7.5.a3

Low Birth Weight Infants by Winnipeg Community Area & Neighborhood Cluster

Crude annual rate per 100 live infants per year, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Health, 2013

'1' indicates area's rate was statistically different from Manitoba average in first time period

'2' indicates area's rate was statistically different from Manitoba average in second time period

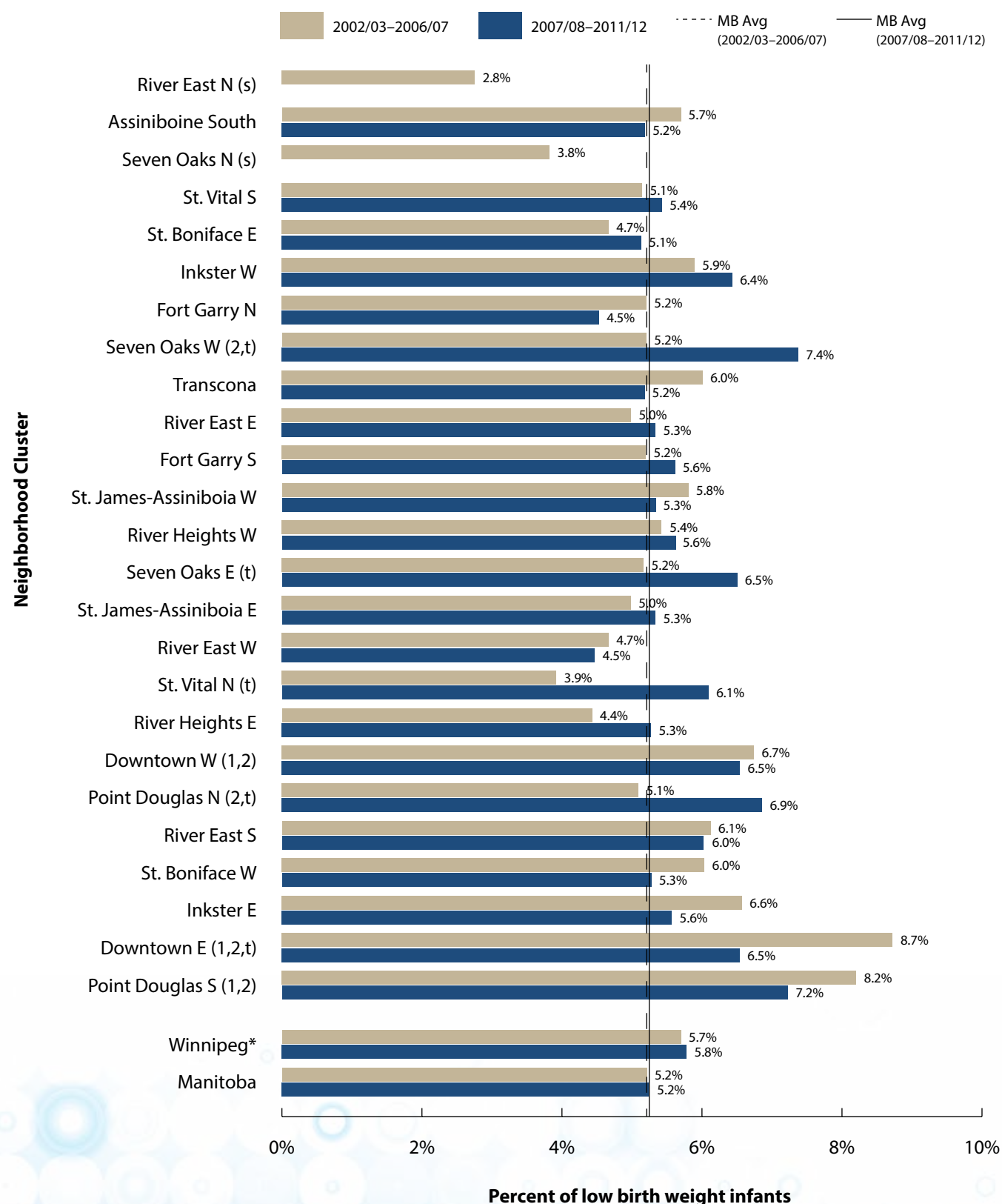
't' indicates change over time was statistically significant for that area

's' indicates data suppressed due to small numbers

Figure A3.7.5.a4

Low Birth Weight Infants by Winnipeg Neighborhood Cluster

Crude annual rate per 100 live infants per year, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Health, 2013

'1' indicates area's rate was statistically different from Manitoba average in first time period

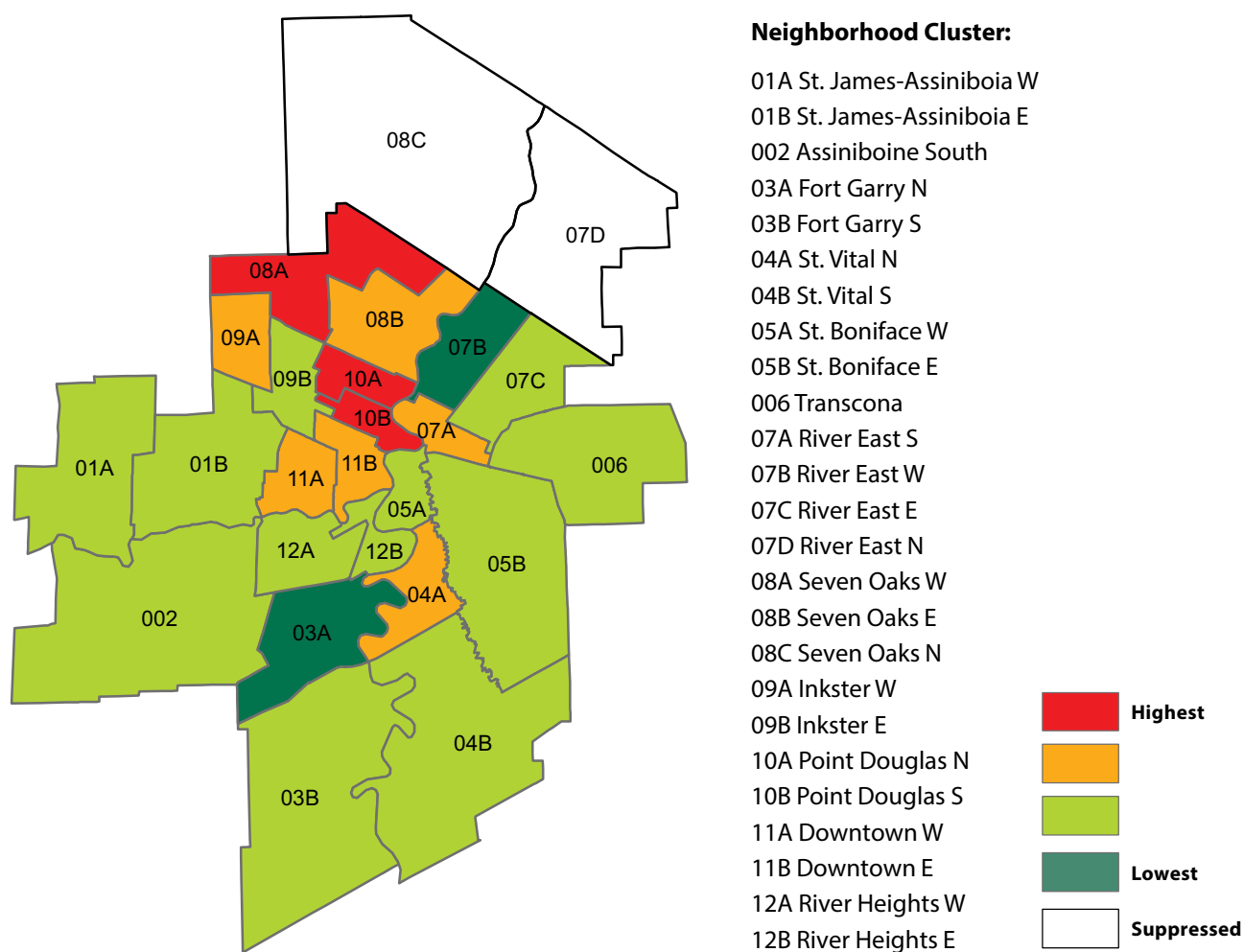
'2' indicates area's rate was statistically different from Manitoba average in second time period

't' indicates change over time was statistically significant for that area

's' indicates data suppressed due to small numbers

Low Birth Weight Infants by Winnipeg Neighborhood Cluster

Crude annual rate per 100 live infants per year, 2007/08–2011/12



Source: Manitoba Health, 2013

Table A3.7.5.a1

Health Inequality in Low Birth Weight (%), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03-2006/07 % live births weigh between 500–2699 grams	2007/08-2011/12 % live births weigh between 500–2699 grams
Low Birth Weight (%) by <i>Community Area (CA) median household income</i>		
Highest income CA (Assiniboine South)	5.7%	5.2%
Lowest income CA (Downtown)	7.8%	6.5%
Absolute difference (Lowest income CA – Highest income CA)	2.1%	1.3%
Ratio (Lowest income CA / Highest income CA)	1.37	1.25
Low Birth Weight (%) by <i>Urban Income Quintile</i>	2002/03-2006/07 % live births weigh between 500–2699 grams	2007/08-2011/12 % live births weigh between 500–2699 grams
Highest Urban Income Quintile (U5)	5.1%	4.5%
U4	4.8%	5.5%
U3	5.5%	5.5%
U2	5.5%	5.9%
Lowest Urban Income Quintile (U1)	6.6%	6.5%
Absolute difference (U1-U5)	1.5%	2.0%
Ratio (U1/U5)	1.29	1.44

Source: Manitoba Health, 2013



Indicator: Breastfeeding Initiation

DEFINITION: The proportion of live born babies who were exclusively or partially breastfed at discharge from hospital or following a home birth under midwifery care. Cases with missing breastfeeding initiation and stillborn babies were excluded.

NUMERATOR: Number of live born babies who were exclusively or partially breastfed.

DENOMINATOR: Total number of live born babies.

CALCULATION: (Number of live born babies who were exclusively or partially breastfed / Total number of live born babies) × 100

DATA SOURCE: Manitoba Health Discharge Abstract Database, 2013

KEY FINDINGS:

- In the Winnipeg Regional Health Authority (the Region), breastfeeding initiation rates increased from 84.5% in 2010/11 to 86.3% in 2012/13. The rate in the Region was consistently higher than the provincial average.
- Within the Region, all community areas had higher rates than the provincial average except for Point Douglas (73.1%), Downtown (80.4%), and Inkster (78.2%)

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Health Canada and the Canadian Pediatric Society recommend that mothers breastfeed their child exclusively (i.e., a baby is only fed breast milk) for the first 6 months of life. While more than 85% of new mothers initiated breastfeeding, breastfeeding duration is not measured.
- Insufficient breast milk, difficulties with breastfeeding technique, and medical condition(s) of the mother or baby are the three most common reasons for stopping breastfeeding before six months.¹
- Mothers who are not able to breastfeed exclusively are encouraged to consider a combination of both breast and formula feeding.

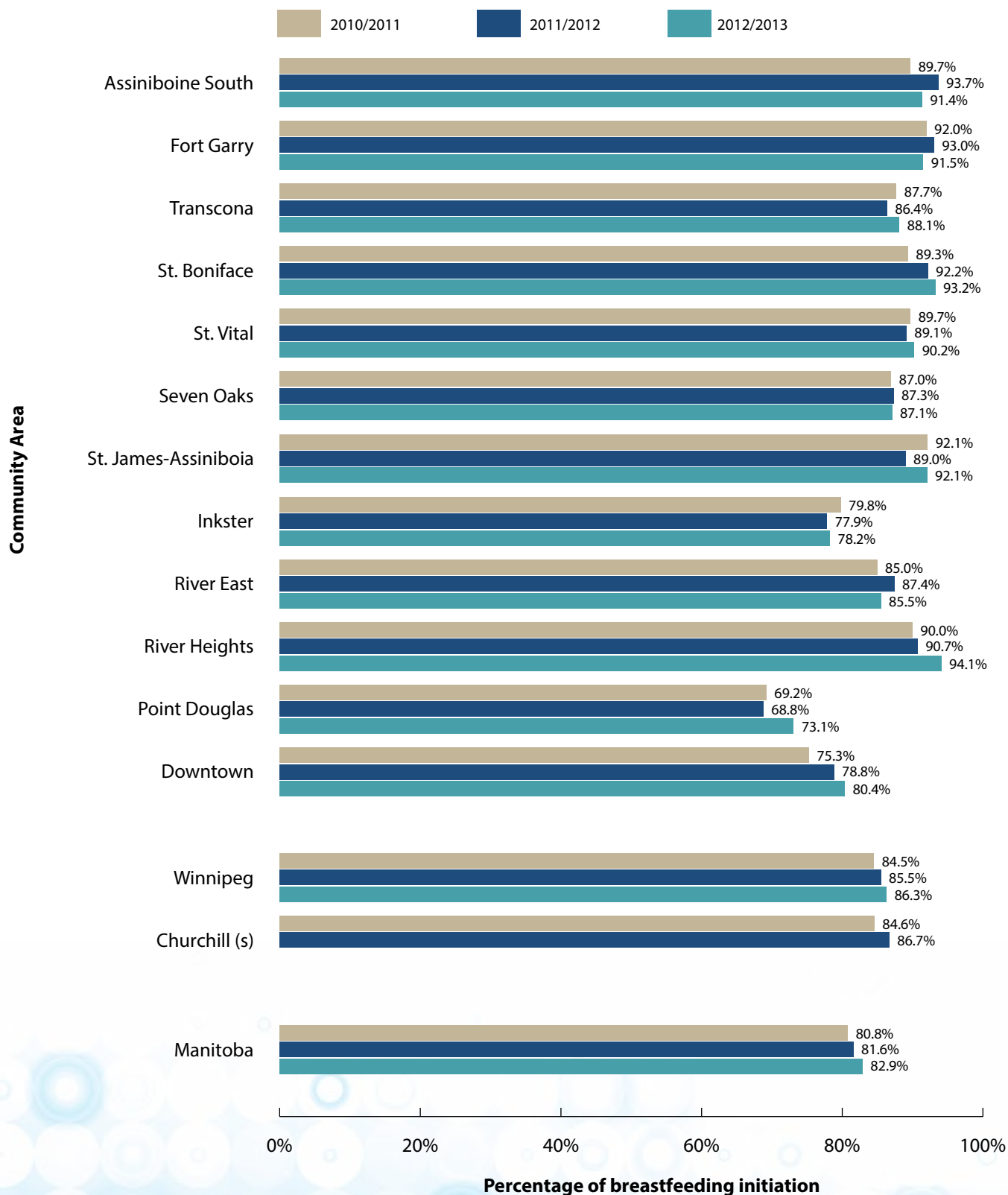
¹ Linda Gionet. 2013. "Breastfeeding trends in Canada" *Health at a Glance*. November. Statistics Canada Catalogue no. 82-624-X.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A3.7.6.a1

Breastfeeding Initiation Rates for In-Hospital Live Births by Winnipeg Community Area

2010/2011, 2011/12, & 2012/2013

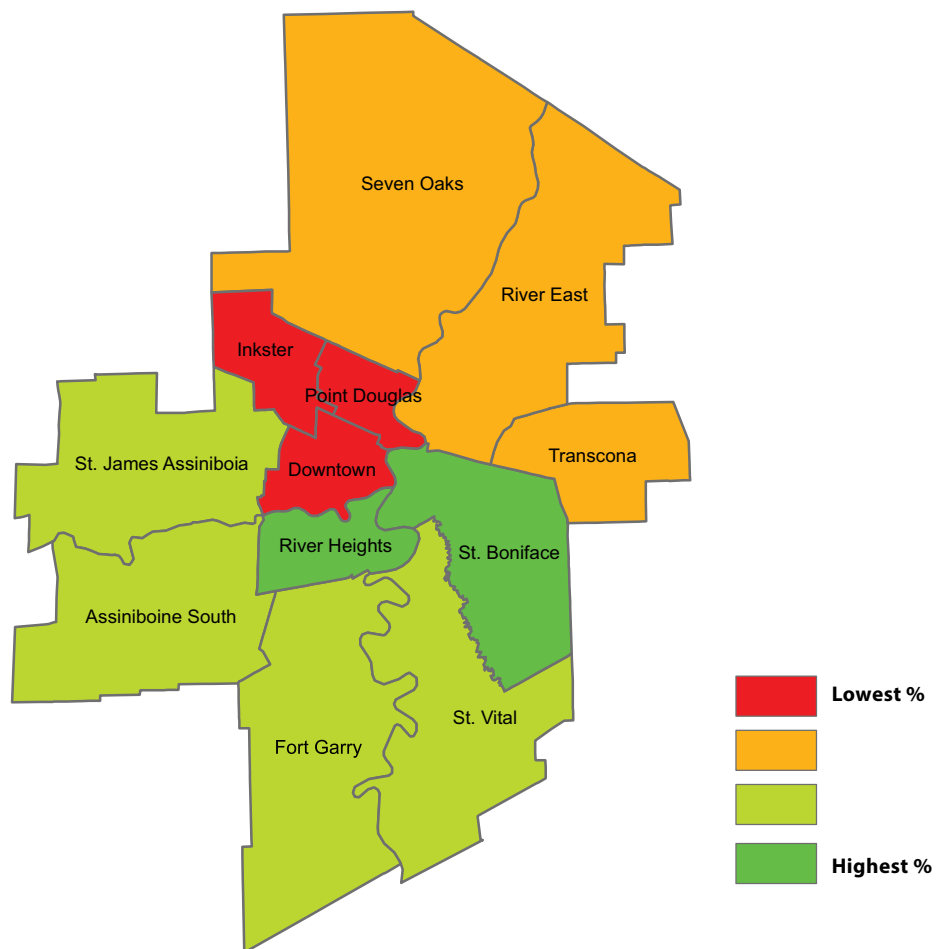


Source: Manitoba Health Discharge Abstract Database, 2013

's' indicates that the results were suppressed to ensure confidentiality

Breastfeeding Initiation Rates for In-Hospital Live Births by Winnipeg Community Area

2012/2013



Source: Manitoba Health Discharge Abstract Database, 2013



Indicator: Early Development Instrument

DEFINITION: The Early Development Instrument (EDI) is a teacher-completed checklist that assesses children's "readiness for school" in five domains:

- Physical health and well-being
- Social competence
- Emotional maturity
- Language and cognitive development, and
- Communication skills and general knowledge.

The EDI is administered at the Kindergarten level (approximately age 5) and is designed to measure population-level development in the early childhood period. Children are classified as being "not ready" in a given EDI domain if they score below the 10th percentile cut-off score for that domain; and as being "very ready" if they score within the top 30th percentile of the score in that domain.

NUMERATOR: Number of children in the Winnipeg Regional Health Authority (the Region) classified as "not ready" or "very ready".

DENOMINATOR: Number of children in the Region with valid responses.

CALCULATION: (Number of children classified as "not ready" or "very ready" / Number of children with valid responses) × 100.

DATA SOURCES: Healthy Child Manitoba Office, 2010/11

KEY FINDINGS:

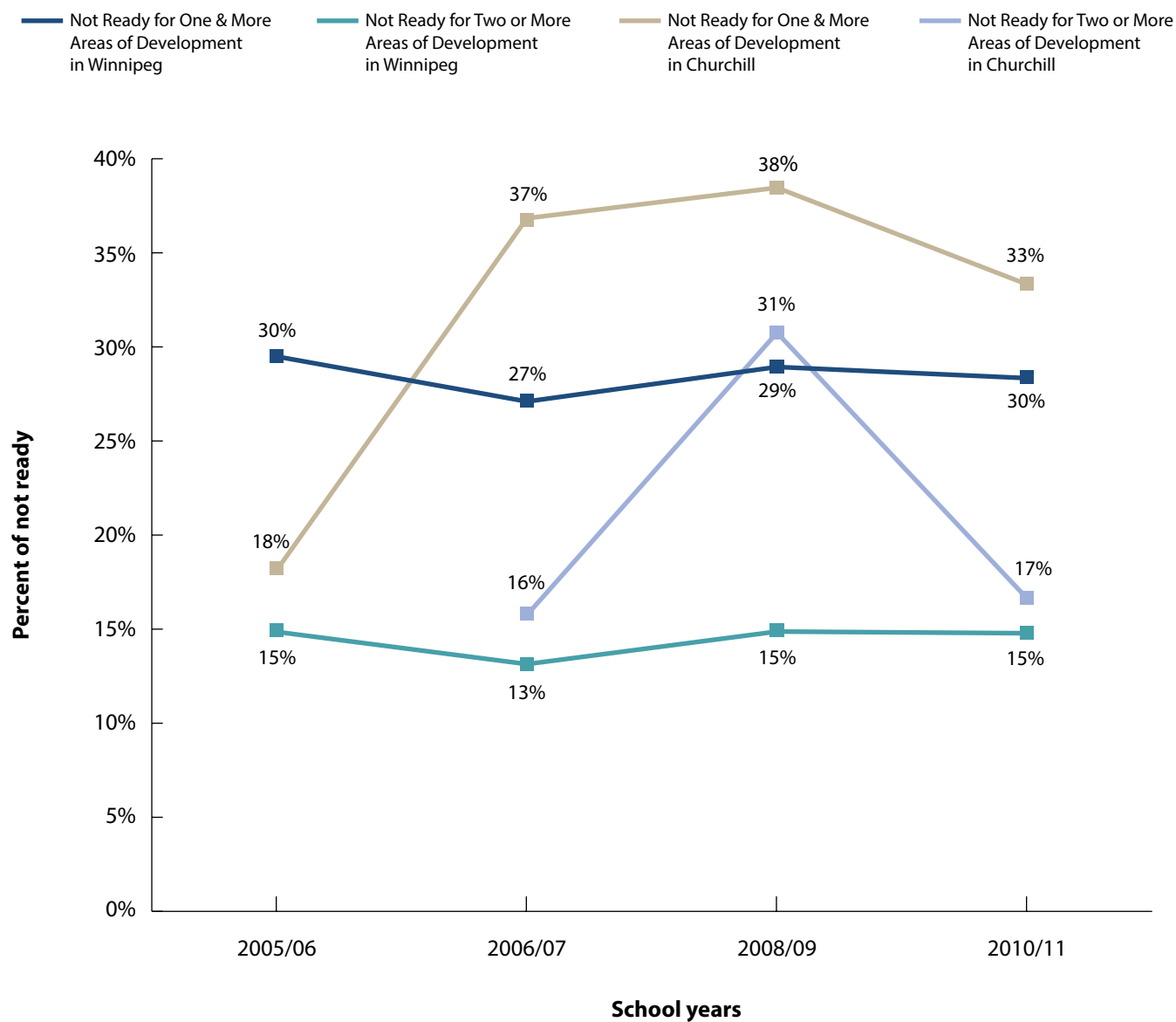
- 28% of the Region's children were "not ready" for school in one or more domains in 2010/11. The percentage of children "not ready" has been stable over the years.
- In Churchill, 33% of children were not ready for school in one or more domains in 2010/11.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- EDI is designed to be interpreted at the group (or community) level and should not be used to assess an individual child.
- EDI measures children's readiness to begin grade one. Children's readiness for school is influenced by their early years and the family and community factors that shape their early childhood development. Therefore, EDI results are a reflection of the strengths and needs of children living in different communities.

Figure A3.7.7.a1

Trends in Children “Not Ready for School” (%) in Winnipeg & Churchill, 2005/06-2010/11 School Years

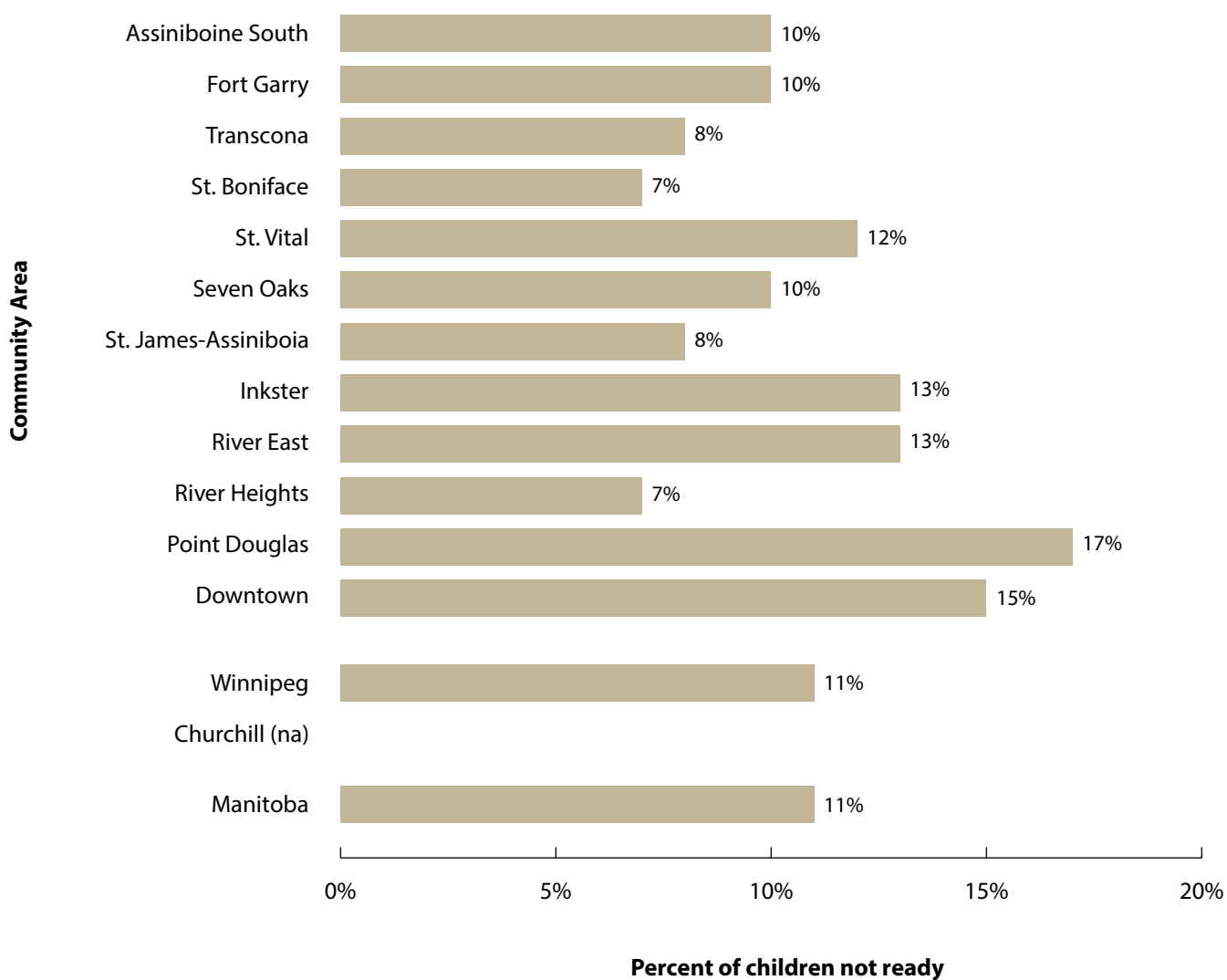


Source: Healthy Child Manitoba Office, 2010/11

****The following charts of Community Area are ordered by decreasing median household income.**

Figure A3.7.7.a2

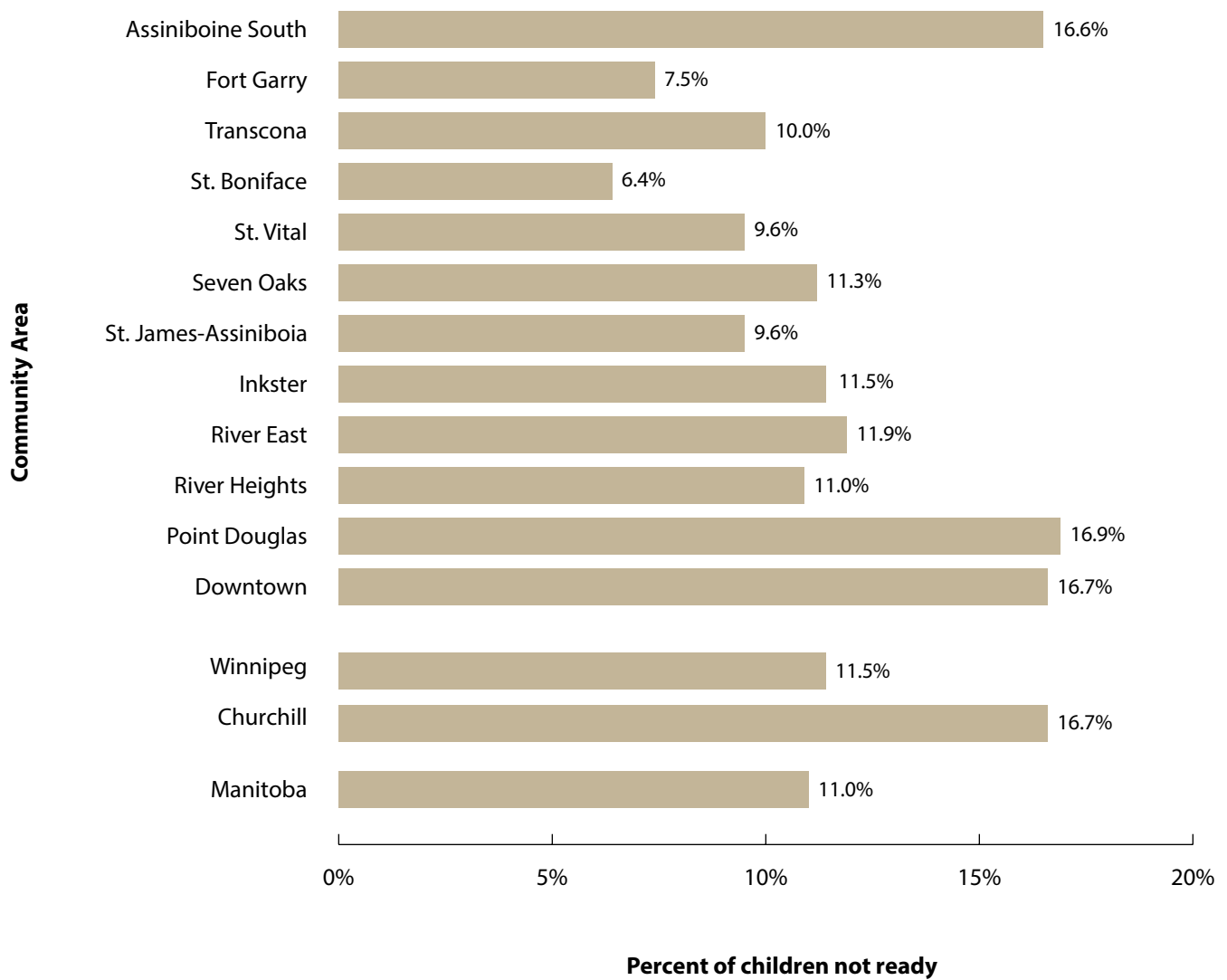
Children “Not Ready for School” (%) in the Physical Health & Well-being Domain by Winnipeg Community Area, 2010/11 School Year



Source: Healthy Child Manitoba Office, 2010/11
(na) data unavailable

Figure A3.7.7.a3

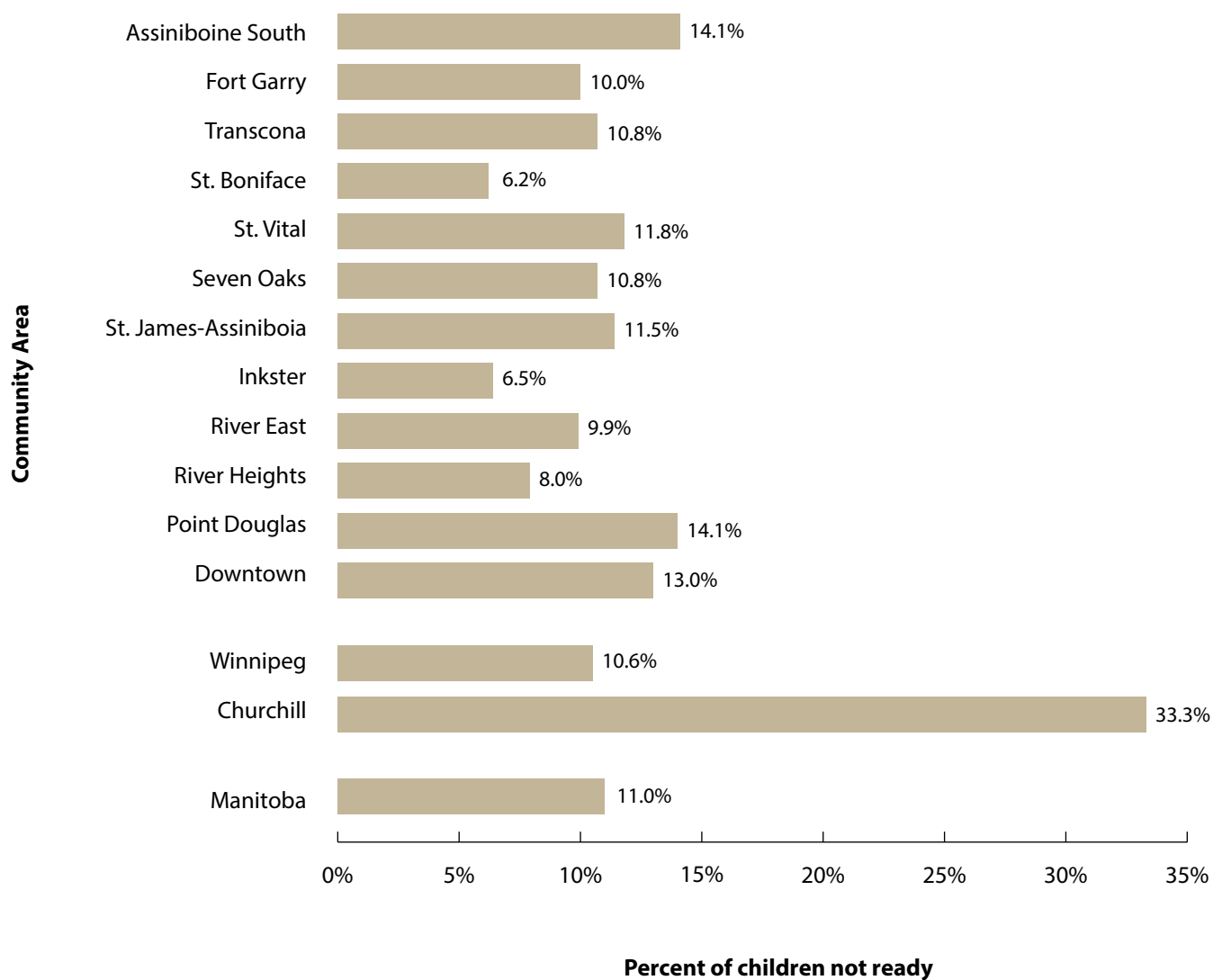
Children “Not Ready for School” (%) in the Social Competence Domain by Winnipeg Community Area, 2010/11 School Year



Source: Healthy Child Manitoba Office, 2010/11

Figure A3.7.7.a4

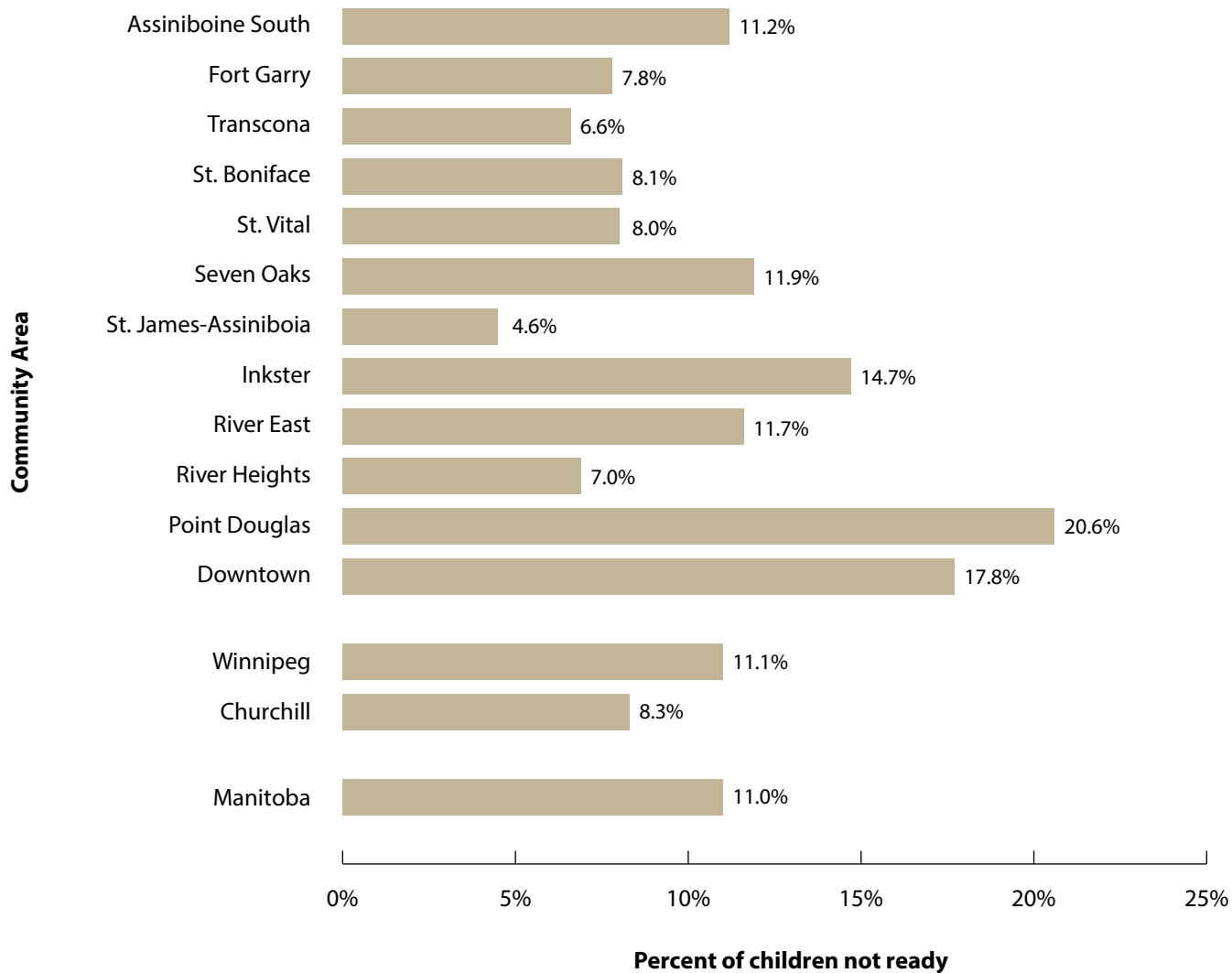
Children “Not Ready for School” (%) in the Emotional Maturity Domain by Winnipeg Community Area, 2010/11 School Year



Source: Healthy Child Manitoba Office, 2010/11

Figure A3.7.7.a5

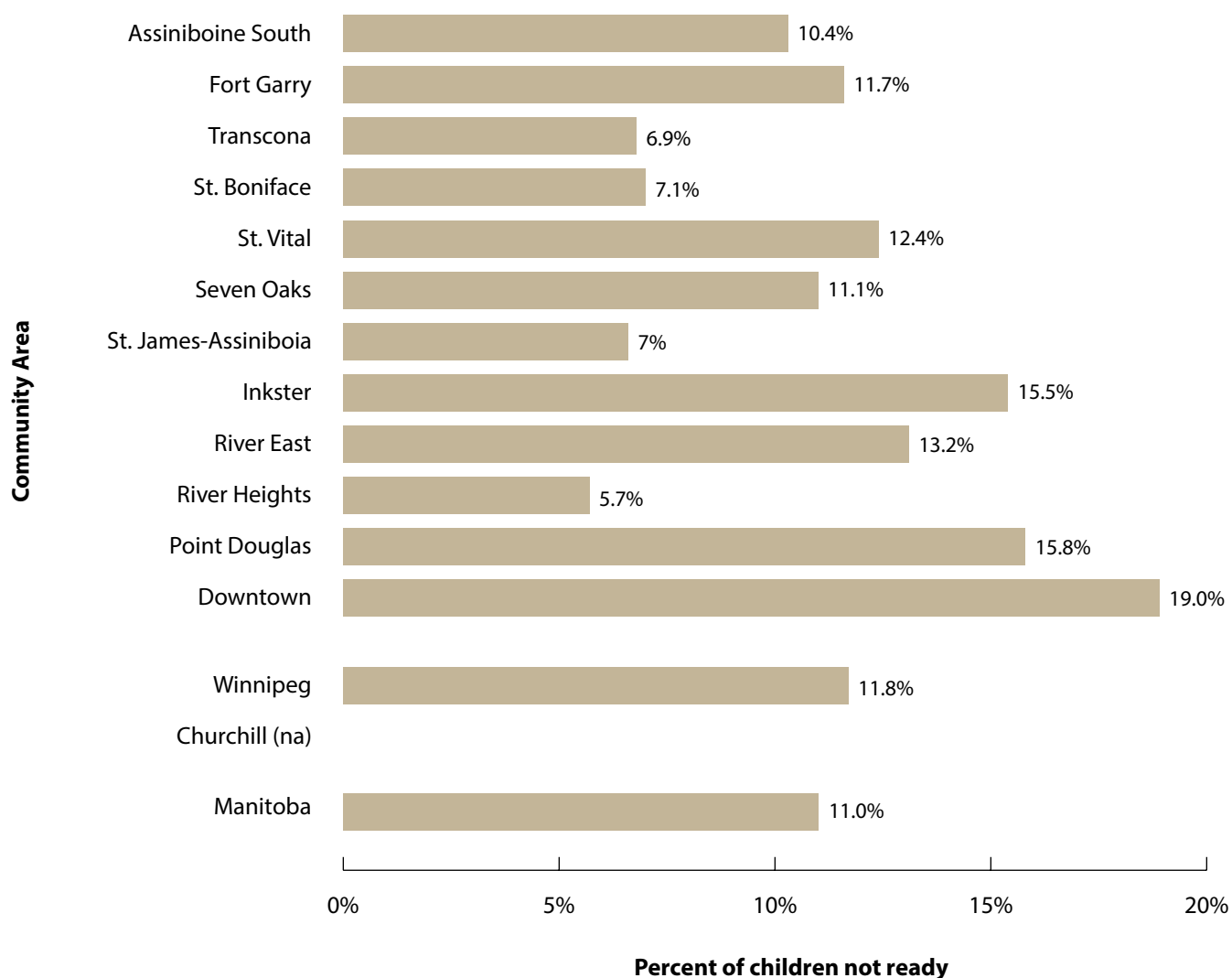
Children “Not Ready for School” (%) in the Language & Cognitive Development Domain by Winnipeg Community Area, 2010/11 School Year



Source: Healthy Child Manitoba Office, 2010/11

Figure A3.7.7.a6

Children “Not Ready for School” (%) in the Communication Skills & General Knowledge Domain by Winnipeg Community Area, 2010/11 School Year

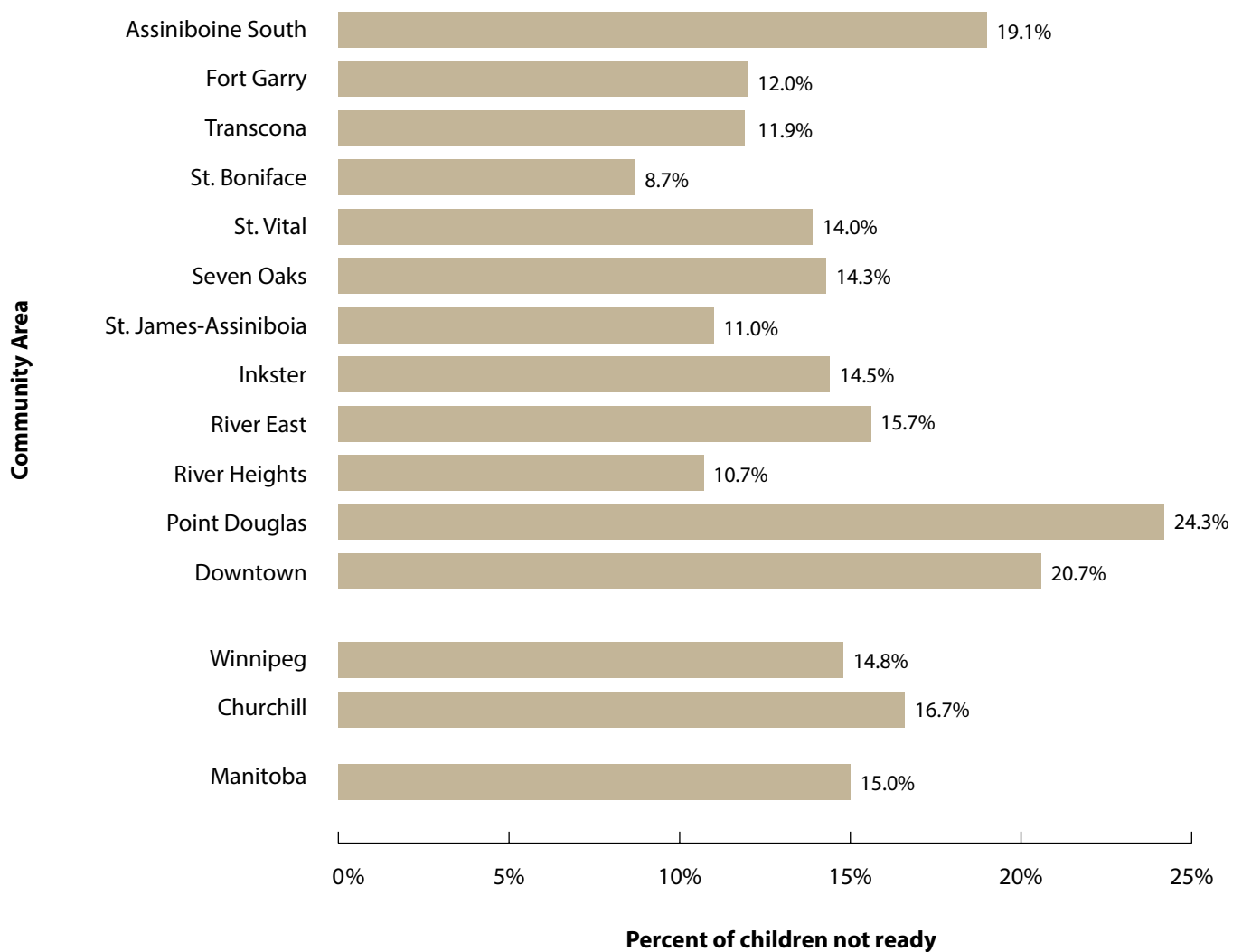


Source: Healthy Child Manitoba Office, 2010/11

(na) - data unavailable

Figure A3.7.7.a7

Children “Not Ready for School” (%) in the Two or More Domains of Development by Winnipeg Community Area, 2010/11 School Year



Source: Healthy Child Manitoba Office, 2010/11

**HEALTH BEHAVIORS, PREVENTIVE SERVICES, AND
SOCIOECONOMIC DETERMINANTS OF HEALTH ACROSS THE
WINNIPEG HEALTH REGION**

Winnipeg Regional Health Authority



Indicator: Tobacco Smoking

DEFINITION: The percentage of respondents to the Canadian Community Health Survey (CCHS) aged 12 years and older who reported being either a current smoker (daily or occasionally), former smoker or non-smoker.

NUMERATOR: Residents aged 12 years and older who responded to being a current smoker, former smoker or non-smoker.

DENOMINATOR: Total number of residents aged 12 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- The percent of current smokers (daily or occasionally) in the Winnipeg Regional Health Authority (the Region) decreased from 22% in 2001-2005 to 19% in 2007-2012.
- There was a four-fold difference in current smoking rates across the Region, ranging from 10% in Assiniboine South community area (CA) to 39% in Point Douglas CA.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The percentage of current smokers in the Region was similar to that in other similar health regions in Canada. Smoking remains a public health challenge in Winnipeg and across Canada.
- On average, daily smokers in Manitoba smoked 13 cigarettes per day.¹
- Six in 10 current smokers are seriously considering quitting in the next 6 months and nearly half of current smokers have tried to quit in the past year.² Nearly half of those who have attempted to quit used stop-smoking medications including nicotine replacement therapy (NRT).

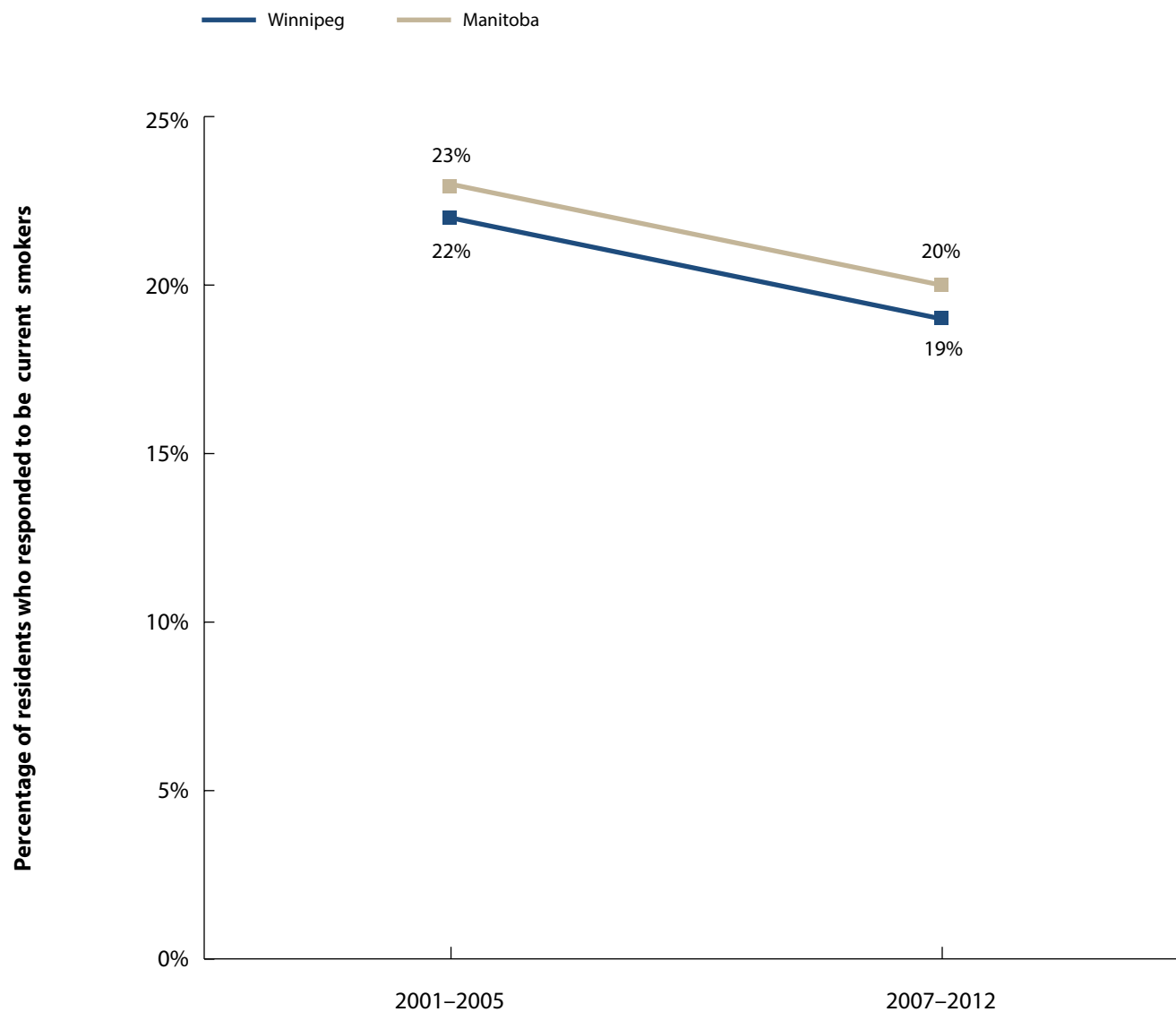
¹ Jan Z. *Current Smoking Trends. Health at a Glance, June 2012.*

² PROPEL Centre for Population Health Impact. *Tobacco use in Canada: patterns and trends, 2012 Edition.* Waterloo, Ontario, 2012.

Figure A4.1.1.a1

Trends in Current Smokers in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 12+, 2001–2005 & 2007–2012

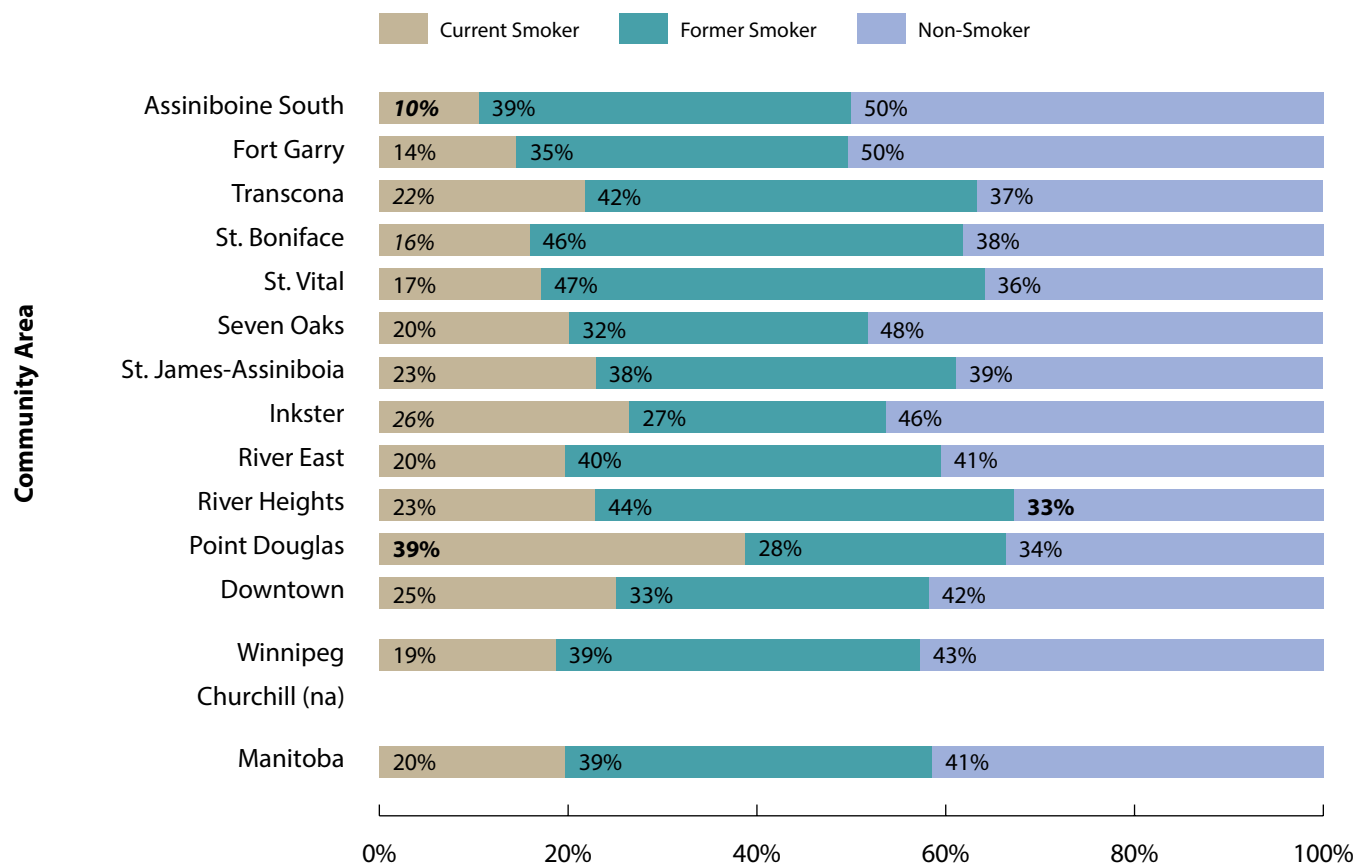


Sources: MCHP, 2009 & CCHS, 2007–2012

Figure A4.1.1.a2

Tobacco Smoking Status by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007-2008, 2009-2010, & 2011-2012



Source: Canadian Community Health Survey, 2007-2012

bold - indicates area's rate was statistically different from Manitoba Average

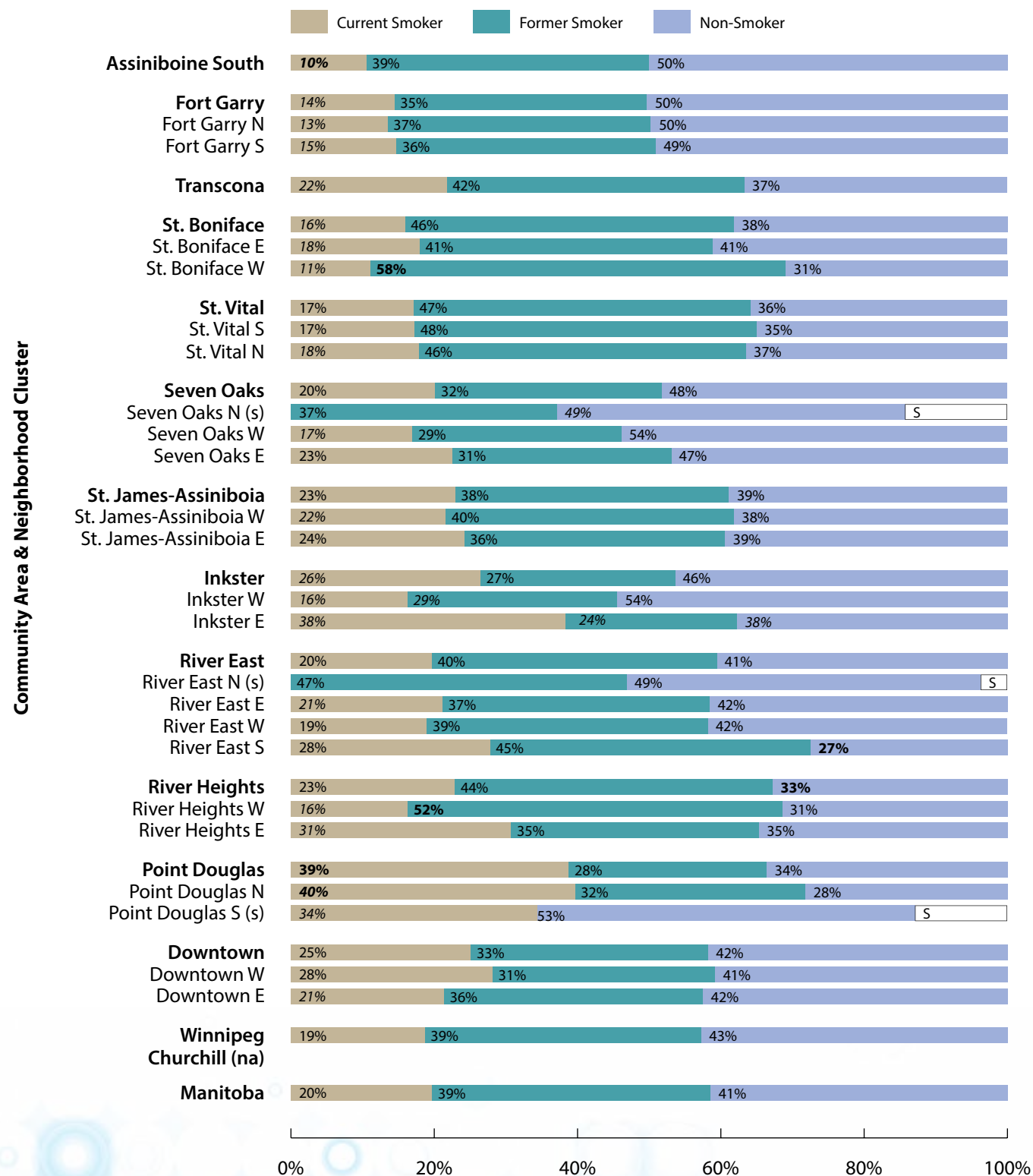
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A4.1.1.a3

Tobacco Smoking Status by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

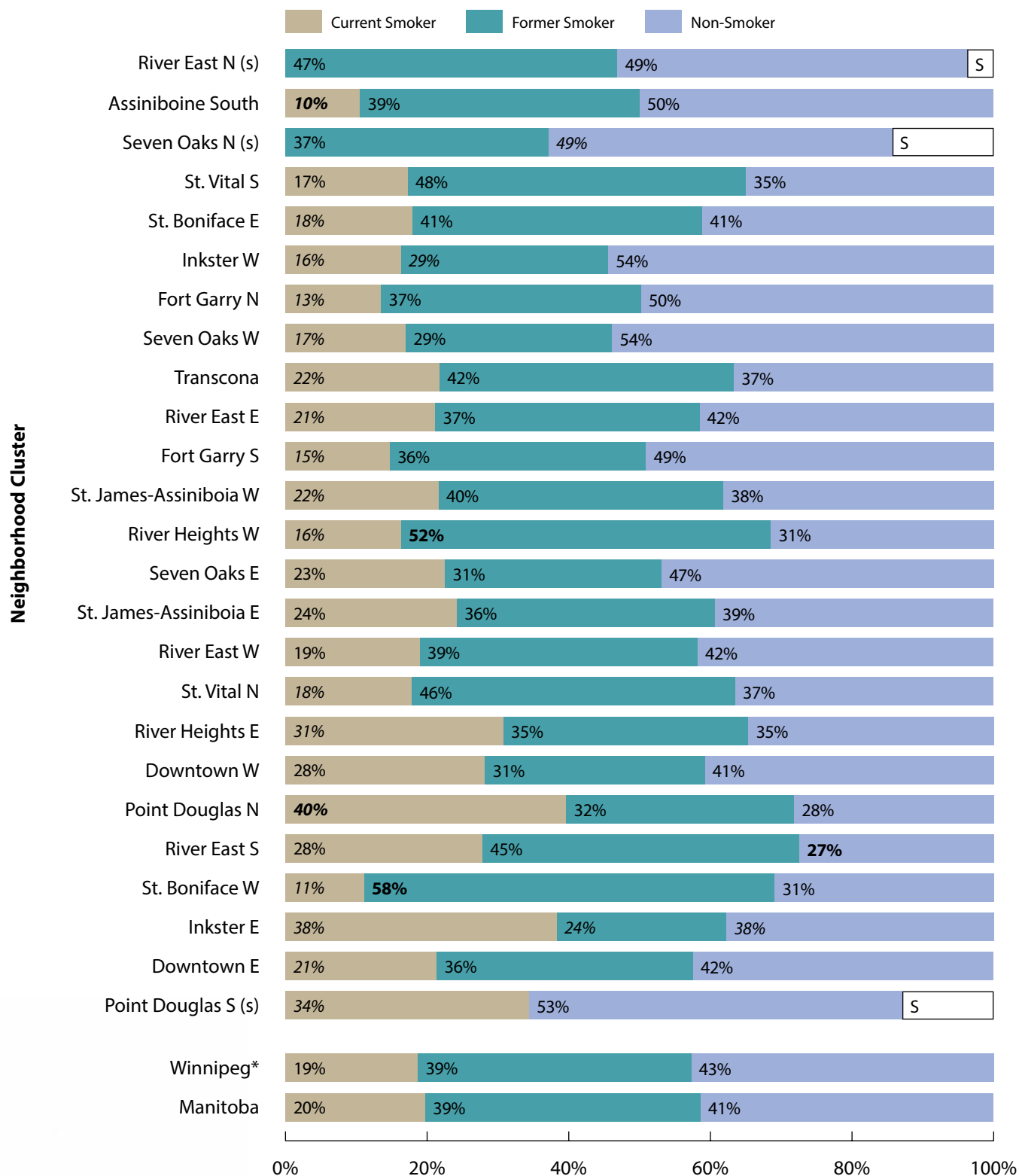
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A4.1.1.a4

Tobacco Smoking Status by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

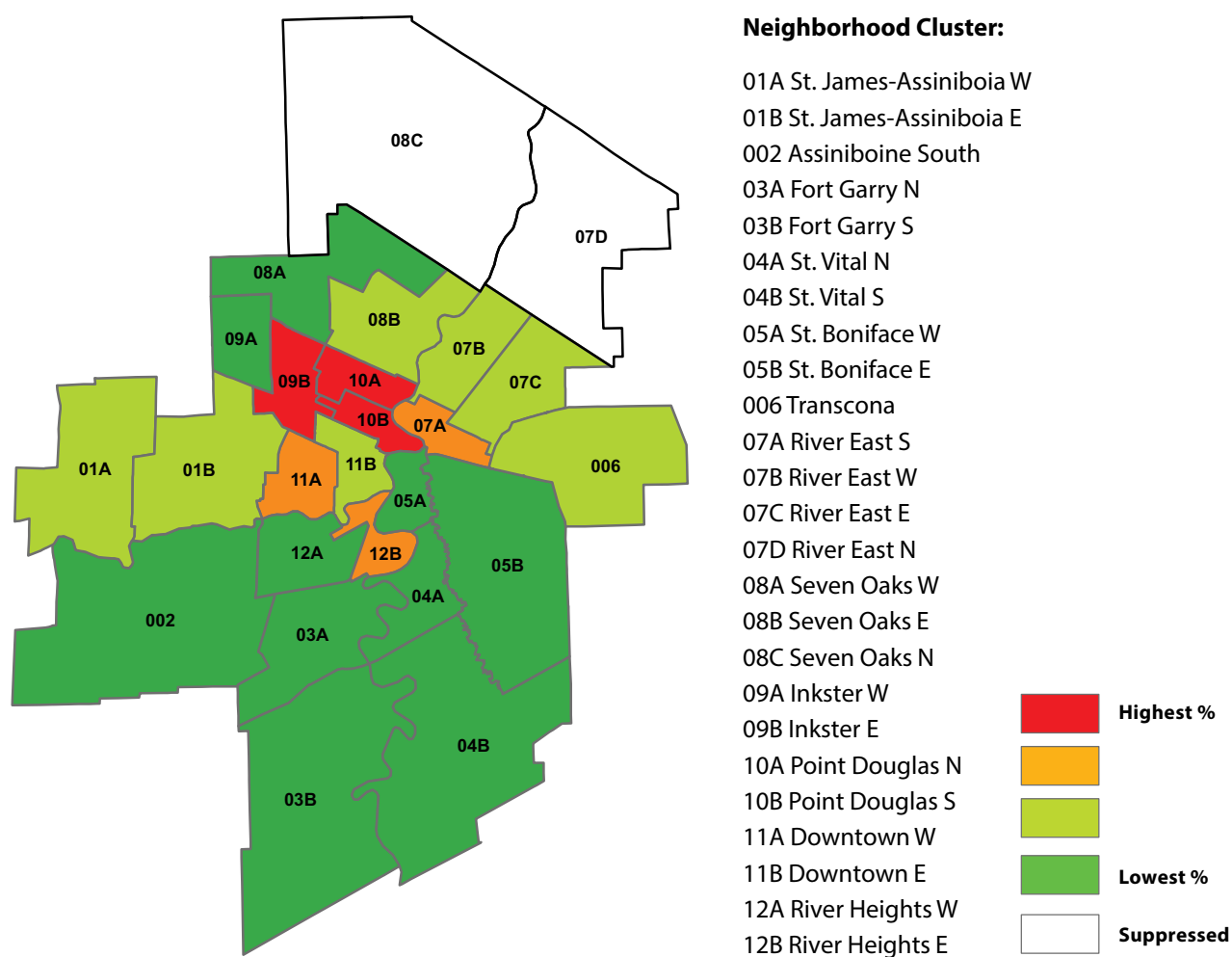
*Excluding Churchill

bold - indicates area's rate was statistically different from Manitoba Average*italics* - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

Current Smokers by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2013



Indicator: Exposure to Second Hand Smoke at Home

DEFINITION: The percentage of respondents to the Canadian Community Health Survey (CCHS) aged 12 years and older who reported being exposed to second hand smoke at home.

NUMERATOR: Residents aged 12 years and older who responded that they had been exposed to second hand smoke at home.

DENOMINATOR: Total number of residents aged 12 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- In the Winnipeg Regional Health Authority (the Region), the percent of exposure to second hand smoke at home among residents aged 12 years and older declined from 18% in 2003-2005 to 10% in 2007-2012.
- The percentage varied substantially across the Region: there was more than a 4-fold difference at the community area (CA) level (26% in Point Douglas and 6% in Fort Garry) in the five-year period (2007-2012).

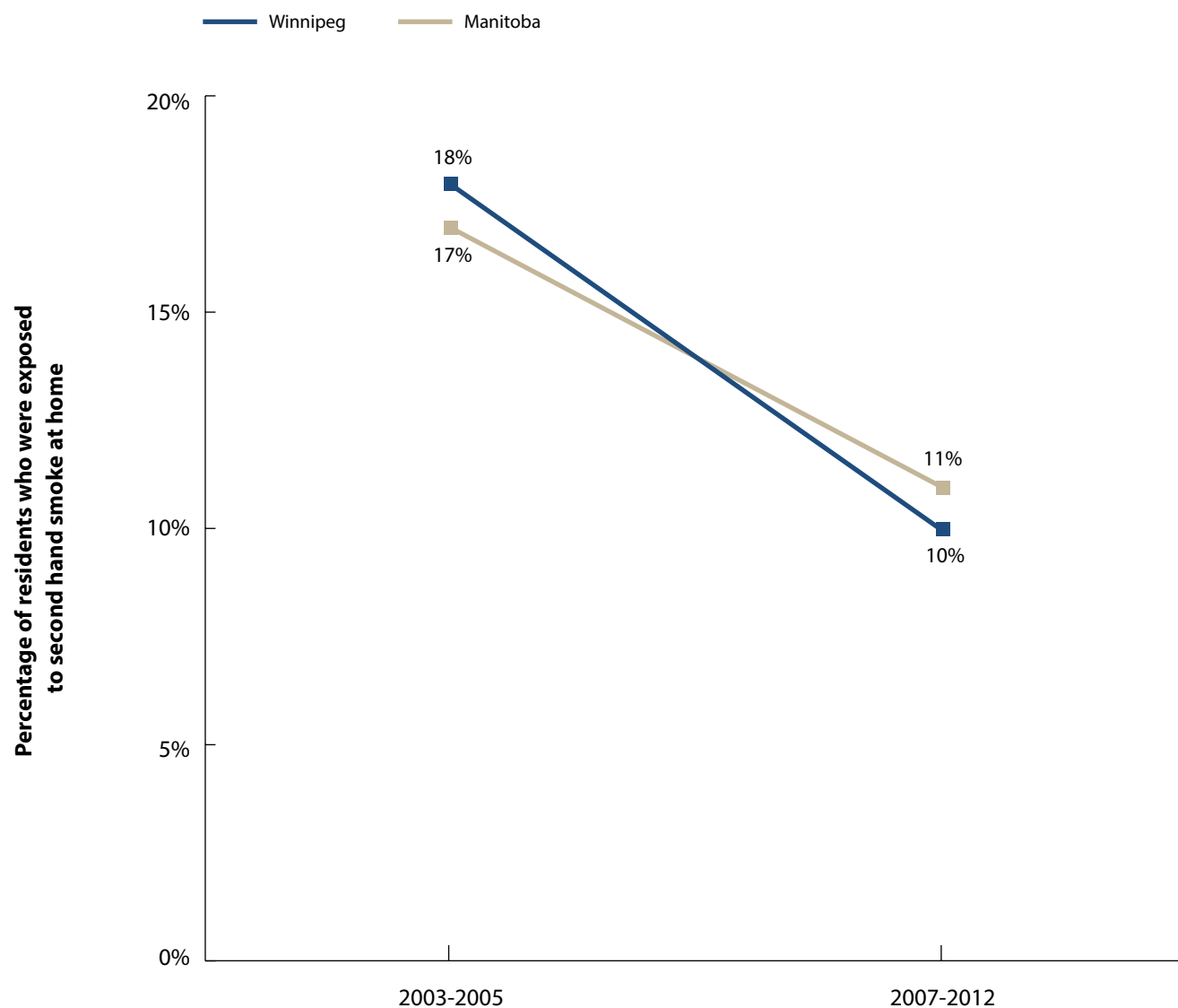
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Exposure to second hand smoke at home is a public health challenge, particularly for the Point Douglas CA.

Figure A4.1.1.b1

Trends in Exposure to Second Hand Smoke at Home in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 12+, 2003–2005 & 2007–2012

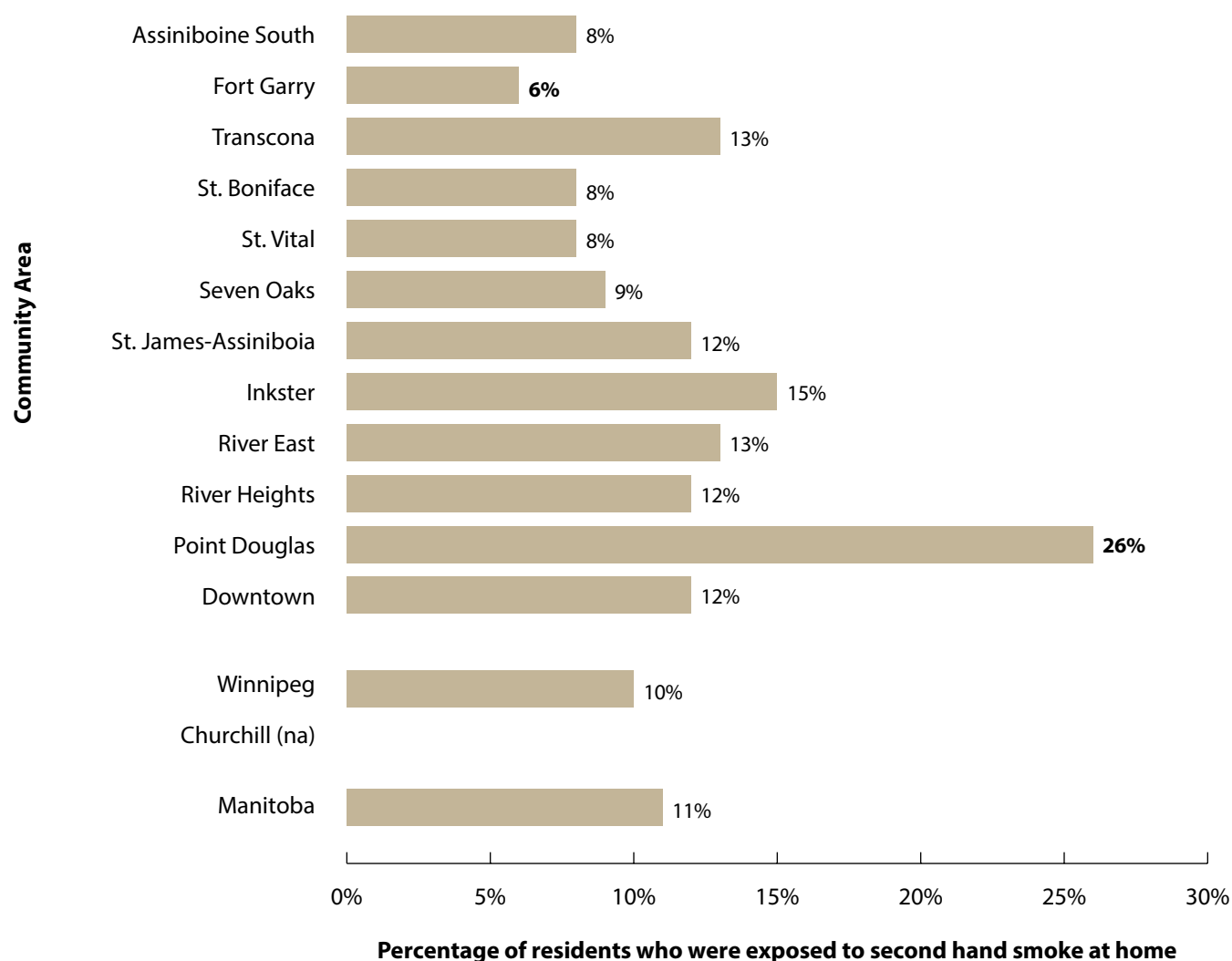


Sources: MCHP, 2009 & CCHS, 2007–2012

Figure A4.1.1.b2

Exposure to Second Hand Smoke at Home by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

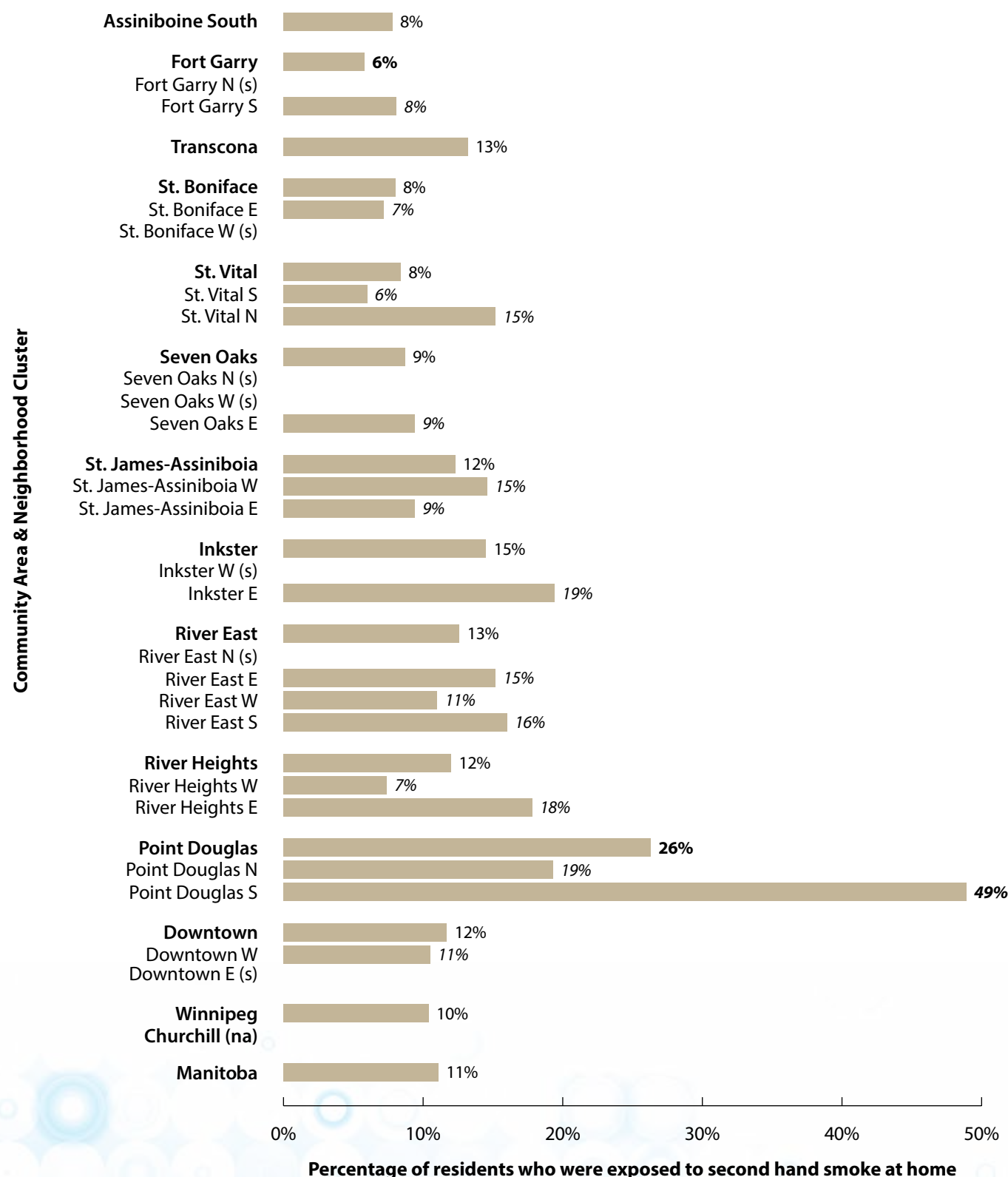
bold - indicates area's rate was statistically different from Manitoba Average

(na) - data unavailable

Figure A4.1.1.b3

Exposure to Second Hand Smoke at Home by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

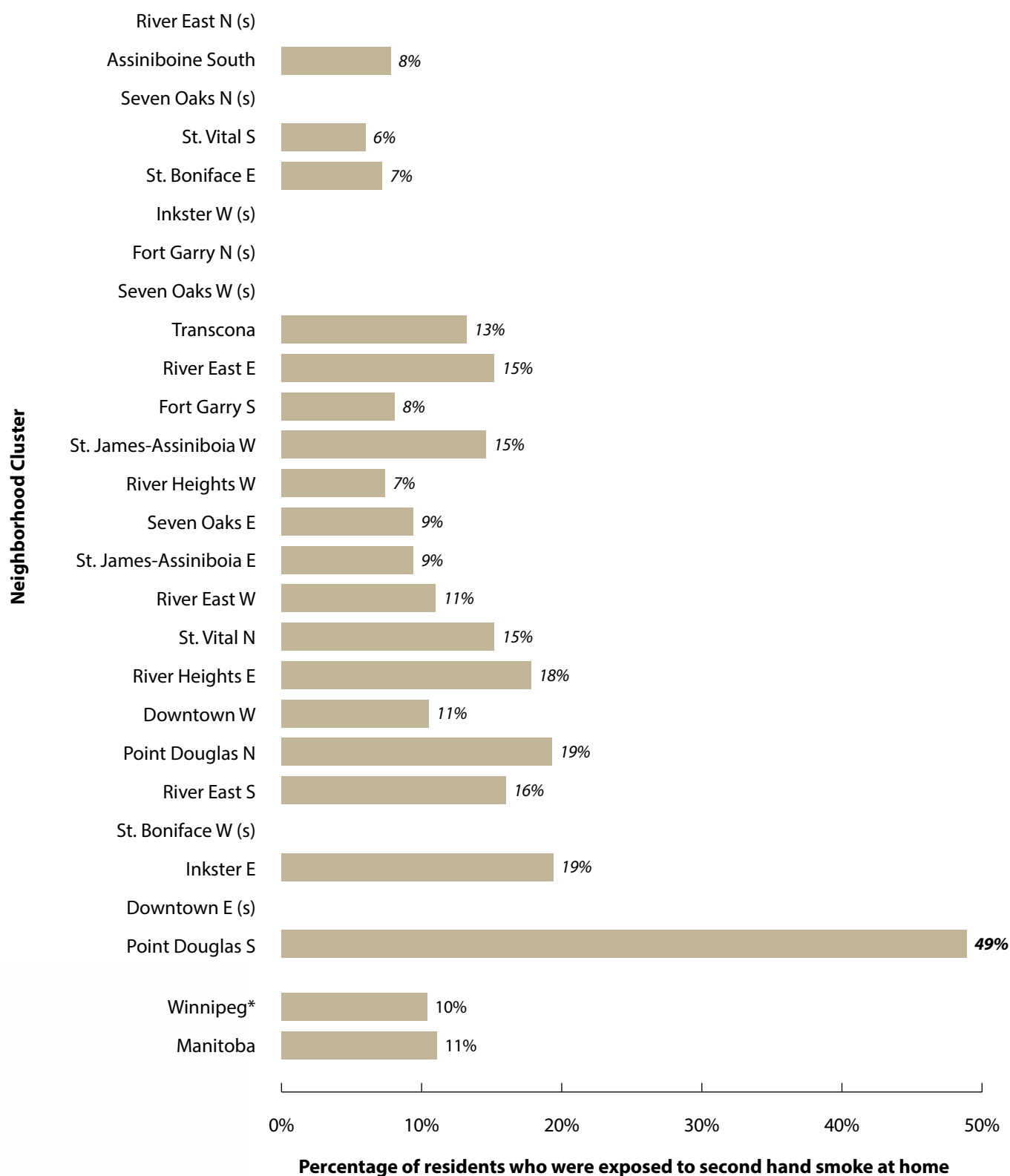
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A4.1.1.b4

Exposure to Second Hand Smoke at Home by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

*Excluding Churchill

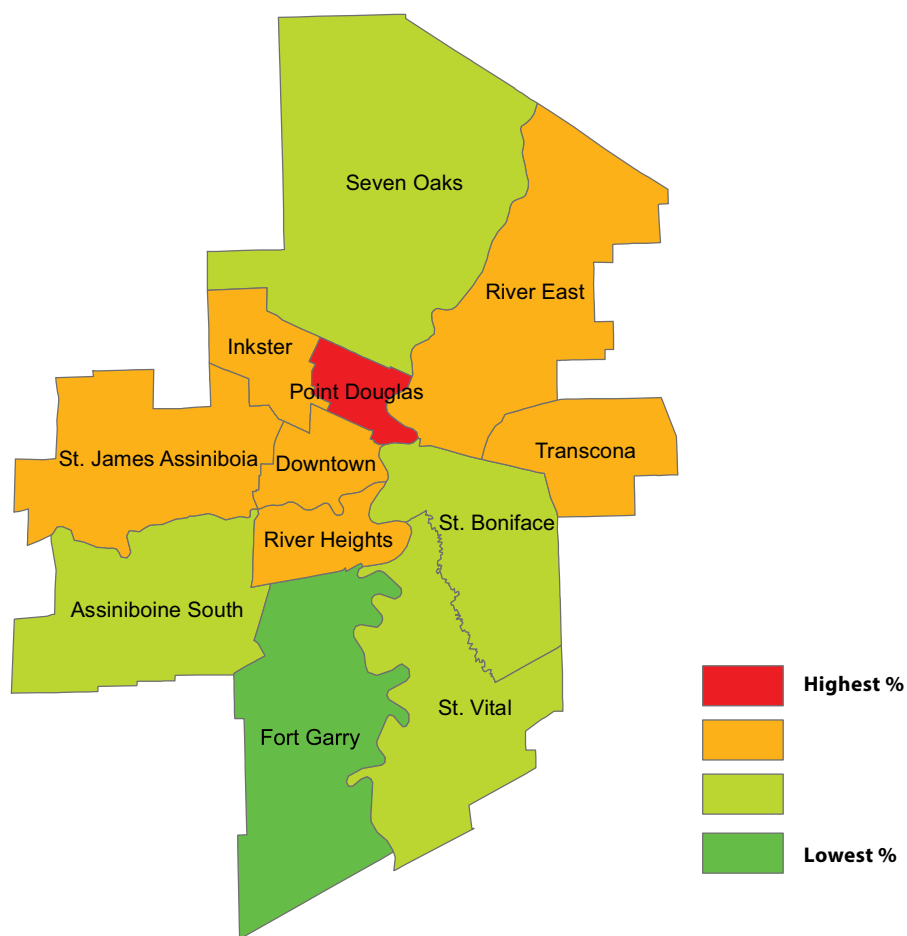
bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

Exposure to Second Hand Smoke at Home by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012



Indicator: Binge Drinking

DEFINITION: Binge drinking is defined as consuming 5 or more drinks on one occasion, at least once a month in the past 12 months.

NUMERATOR: Residents aged 12 years and older who consumed 5 or more drinks on one occasion, at least once a month in the past 12 months.

DENOMINATOR: Total number of residents aged 12 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- Nearly one in four (23%) residents aged 12 and older in the Winnipeg Regional Health Authority (the Region) reported binge drinking in 2007-2012.
- The percent of residents who binge drink increased in the Region from 17% in 2001-2005 to 23% in 2007-2012.
- The percent of residents who binge drink in the Region varied from 22% in St Boniface and River Heights community areas to 38% in the Assiniboine South community area.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

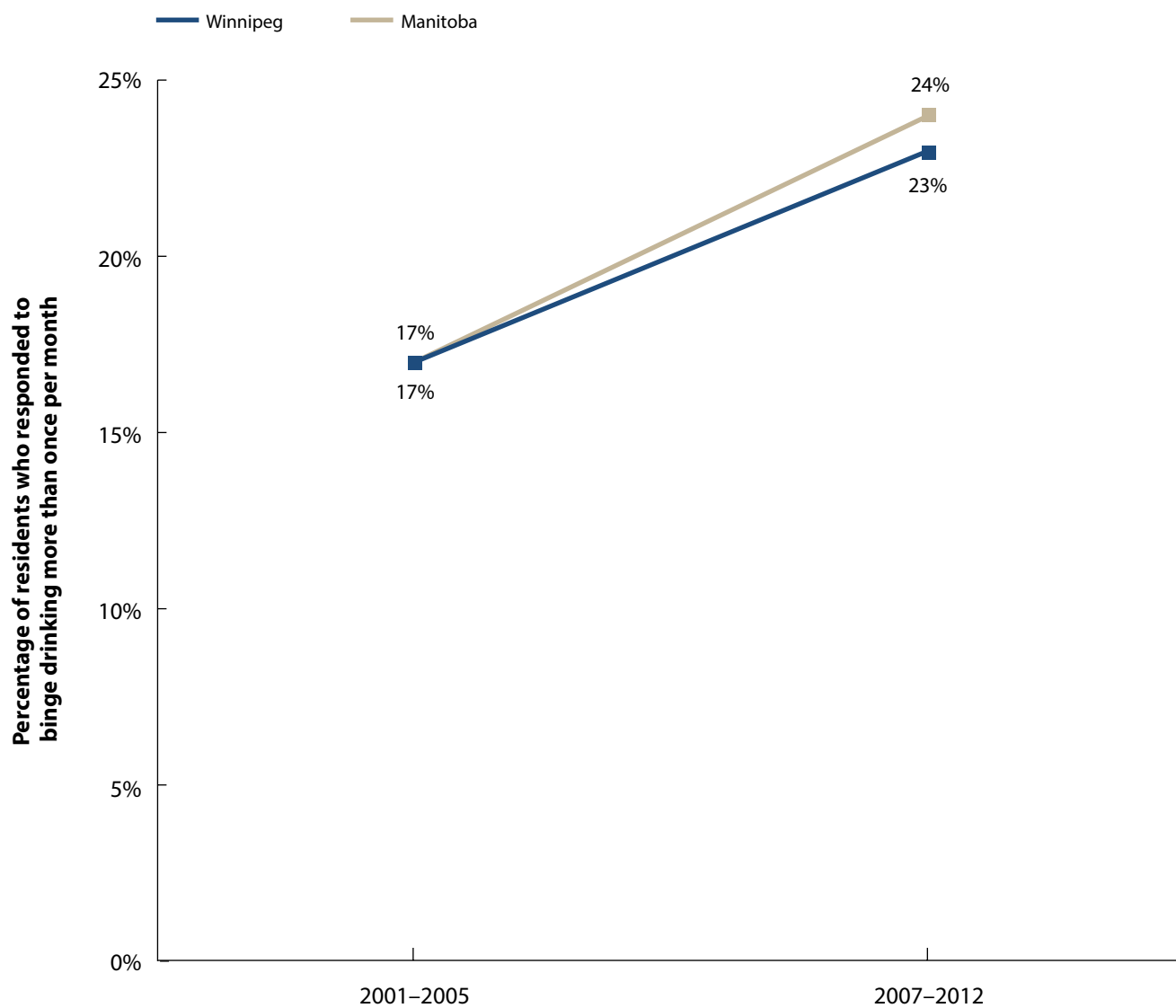
- Binge drinking or heavy drinking is associated with numerous health problems including chronic diseases, unintentional injuries (e.g., motor-vehicle crashes), and violence.
- The proportion of the Region's residents who binge drink was slightly higher than that for other similar health regions in Canada (Peer Group A) and for Canada overall (not statistically tested).¹

¹ Statistics Canada. Health Profile, December 2013. <http://www12.statcan.gc.ca/health-sante/82-228/index.cfm?Lang=E>

Figure A4.1.2.a1

Trends in Binge Drinking in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 12+, 2001–2005 & 2007–2012

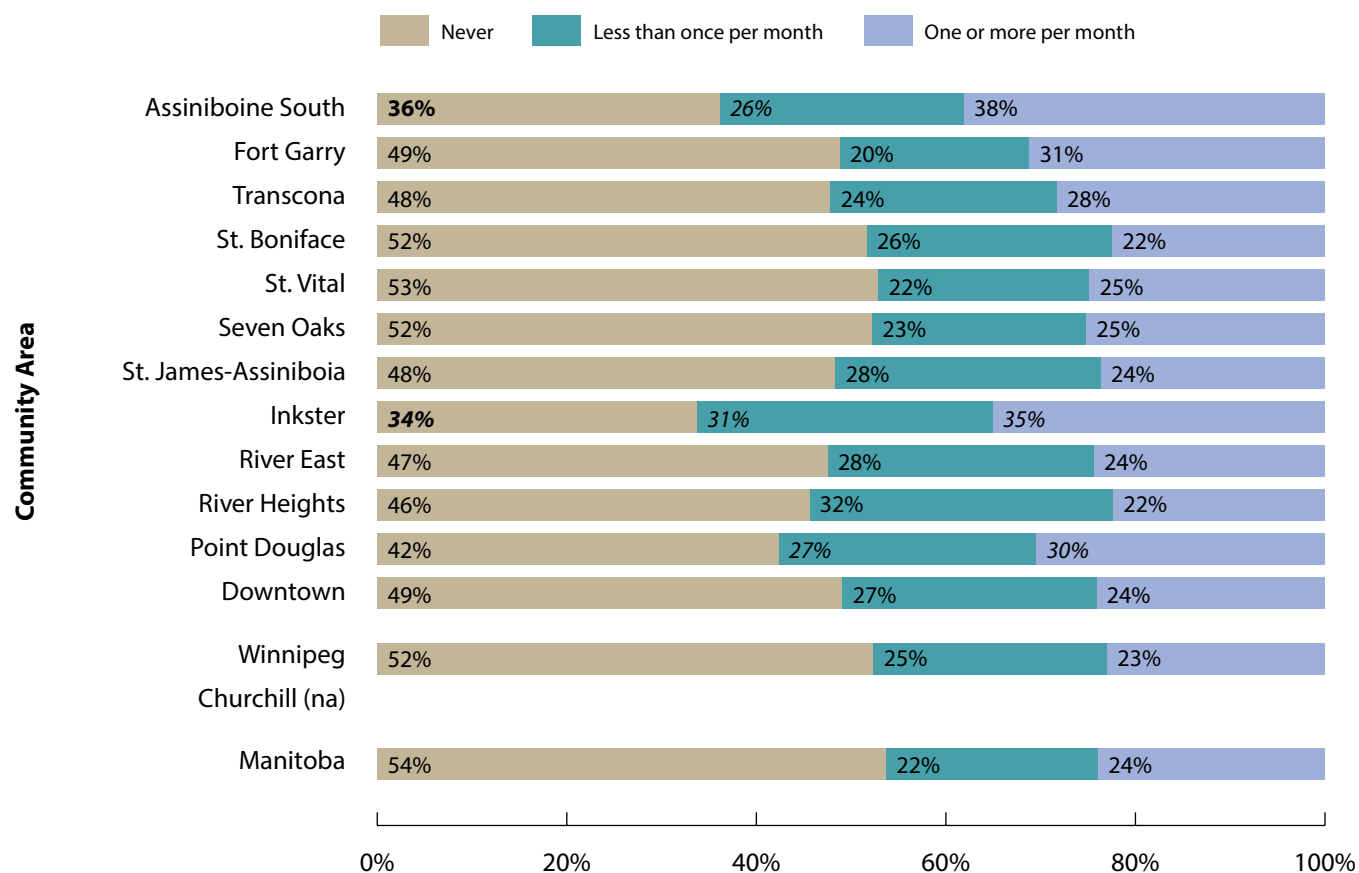


Sources: MCHP, 2009 & CCHS, 2007–2012

****The following charts of Community Area & Neighborhood Cluster are ordered by decreasing median household income.**

Binge Drinking by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

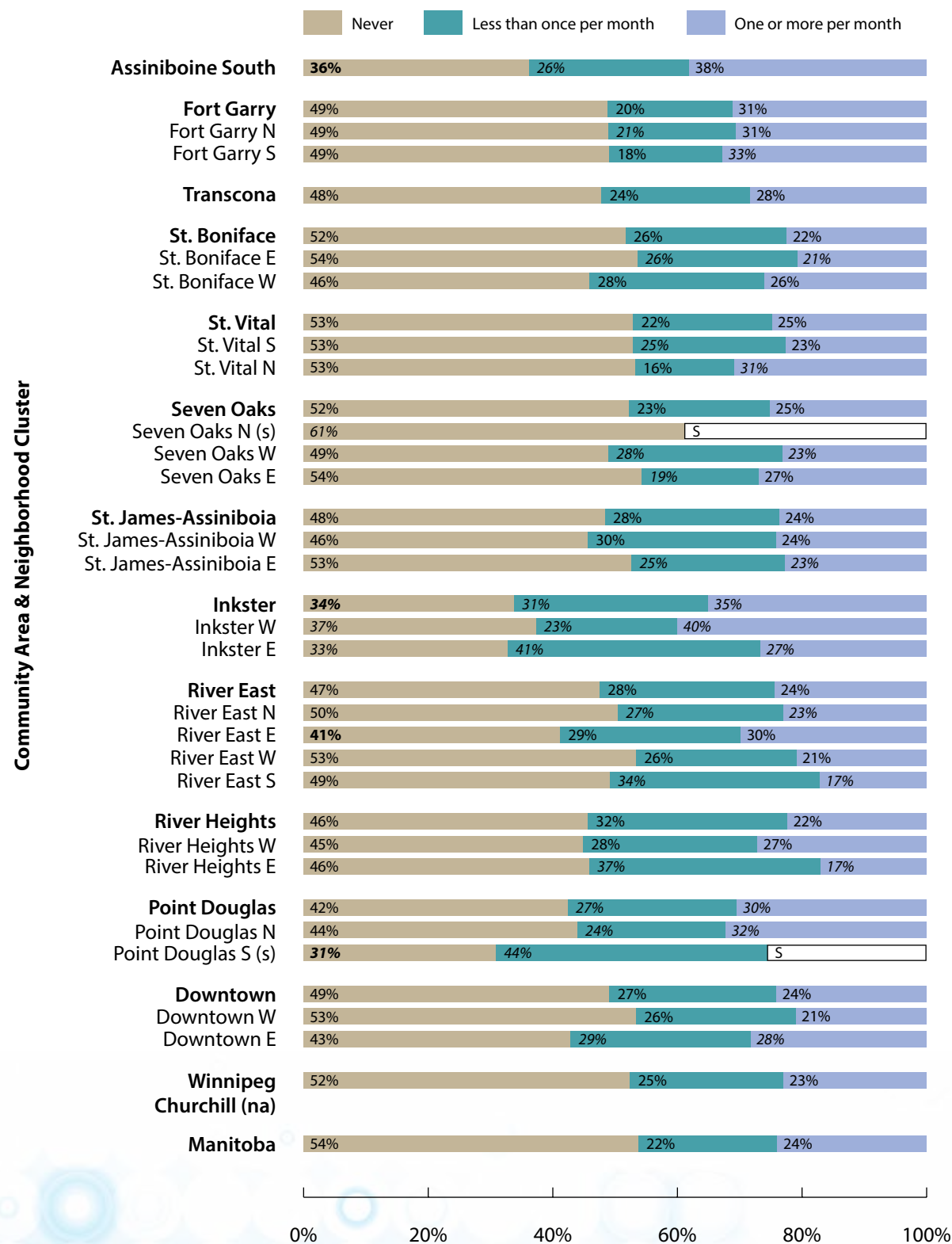
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A4.1.2.a3

Binge Drinking by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average*italics* - indicates a warning - the area's rate is highly variable and should be interpreted with caution

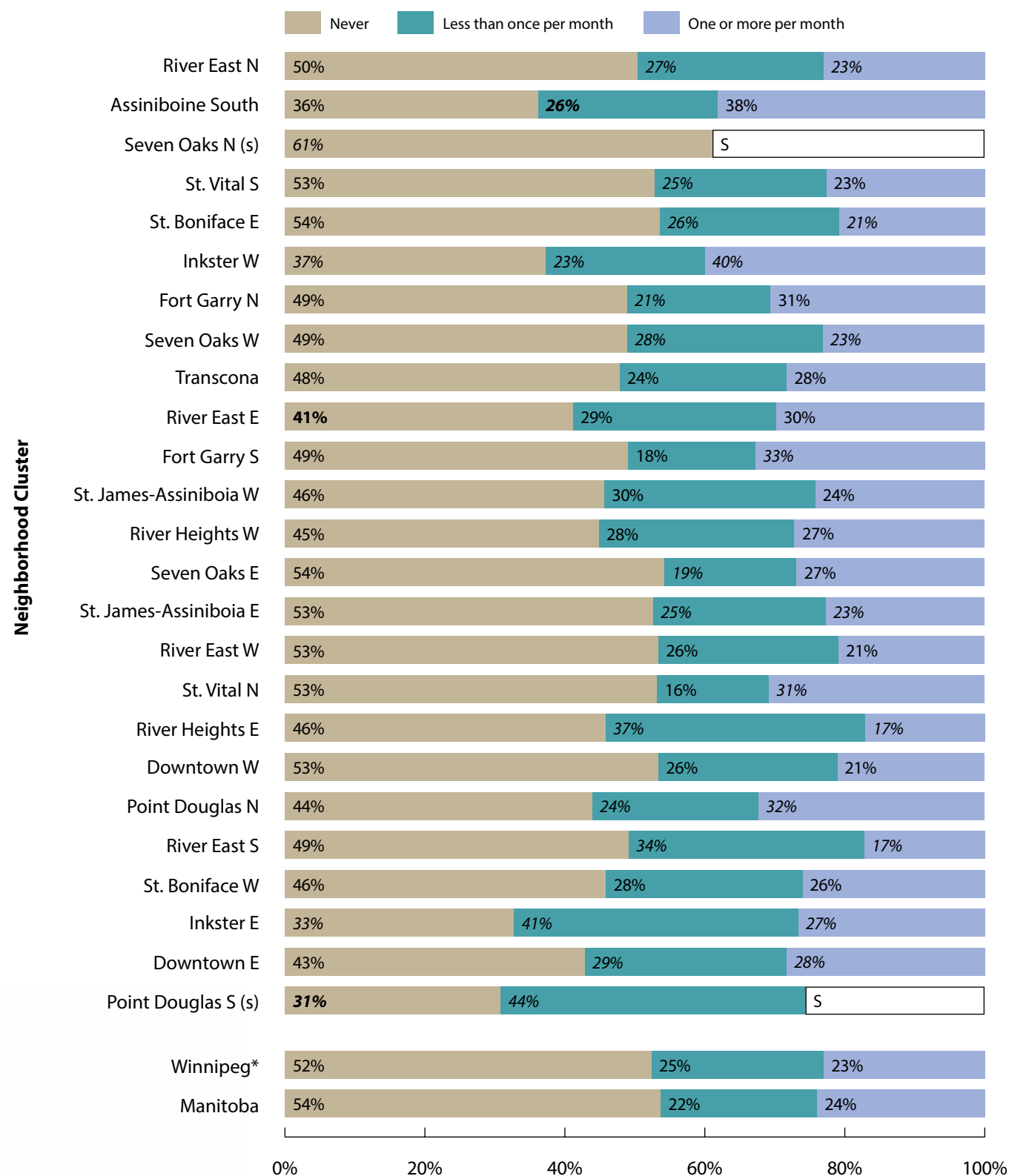
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A4.1.2.a4

Binge Drinking by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

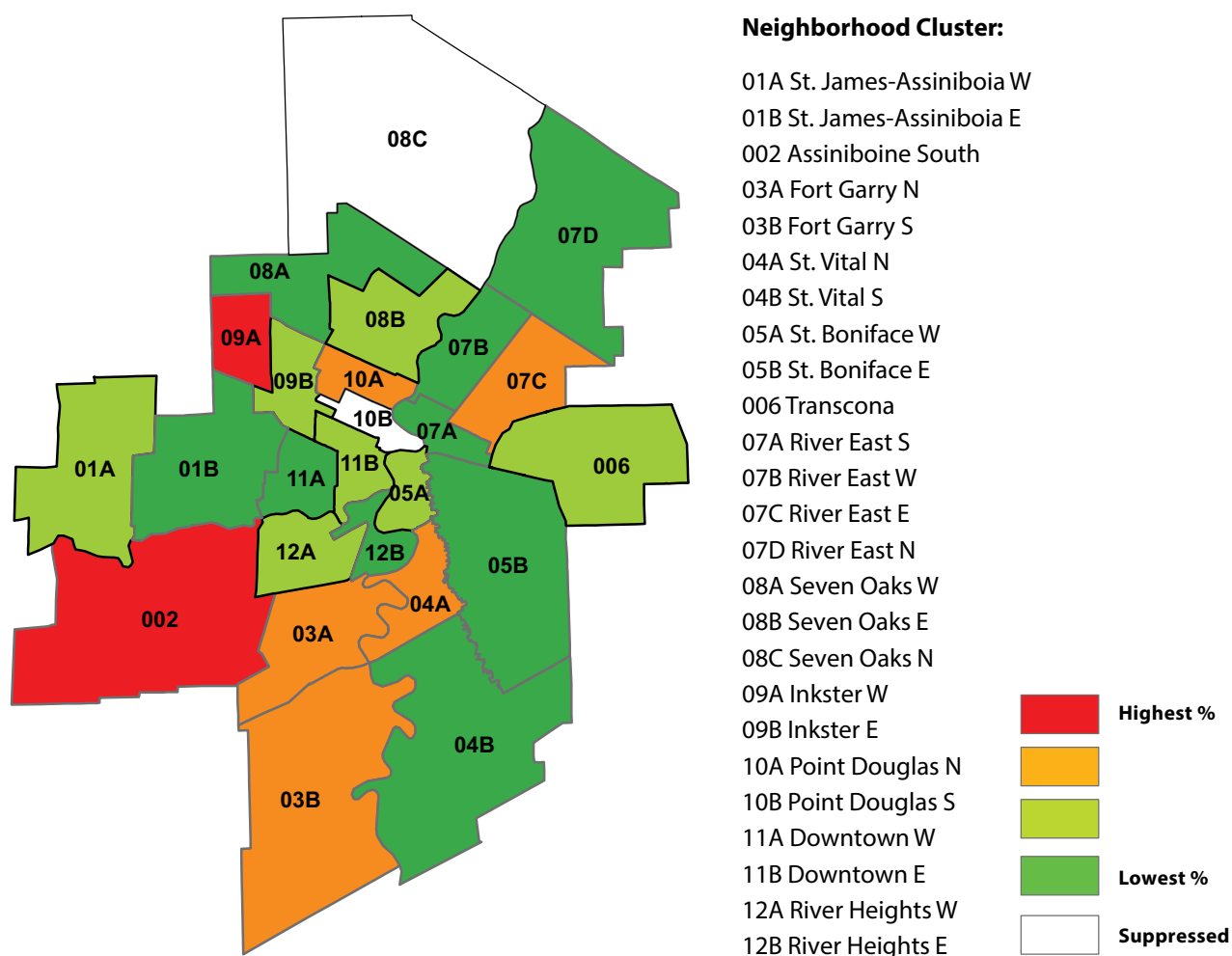
*Excluding Churchill

bold - indicates area's rate was statistically different from Manitoba Average*italics* - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

Binge Drinking (one or more occasions/month) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007-2012



Indicator: Physical Activity Level (Leisure + Travel)

DEFINITION: This indicator reports the proportion of the population aged 12 years and older who are physically “active”, “moderately active” or “inactive”. Respondents were classified based on an index of average daily physical activity over the past 3 months. The index was calculated as the sum of the average daily energy expenditures of all leisure time activities over the past three months. Respondents are classified as follows: 3.0 kcal/kg/day or more = physically active; 1.5 to 2.9 kcal/kg/day = moderately active; less than 1.5 kcal per day = inactive.

NUMERATOR: Residents aged 12 years and older who responded to the questions comprising this CCHS indicator.

DENOMINATOR: Total number of residents aged 12 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percentage of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCE: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012)

KEY FINDINGS:

- During 2007-2012, 31%, 26%, and 43% of residents aged 12 years and older in the Winnipeg Regional Health Authority (the Region) reported being physically active, moderately active, and inactive, respectively.
- The proportion of the Region’s residents aged 12 years and older who are physically inactive (leisure + travel) ranged from 36% in St Boniface, Inkster, and River Heights community areas to 59% in Point Douglas community area during 2007-2012.

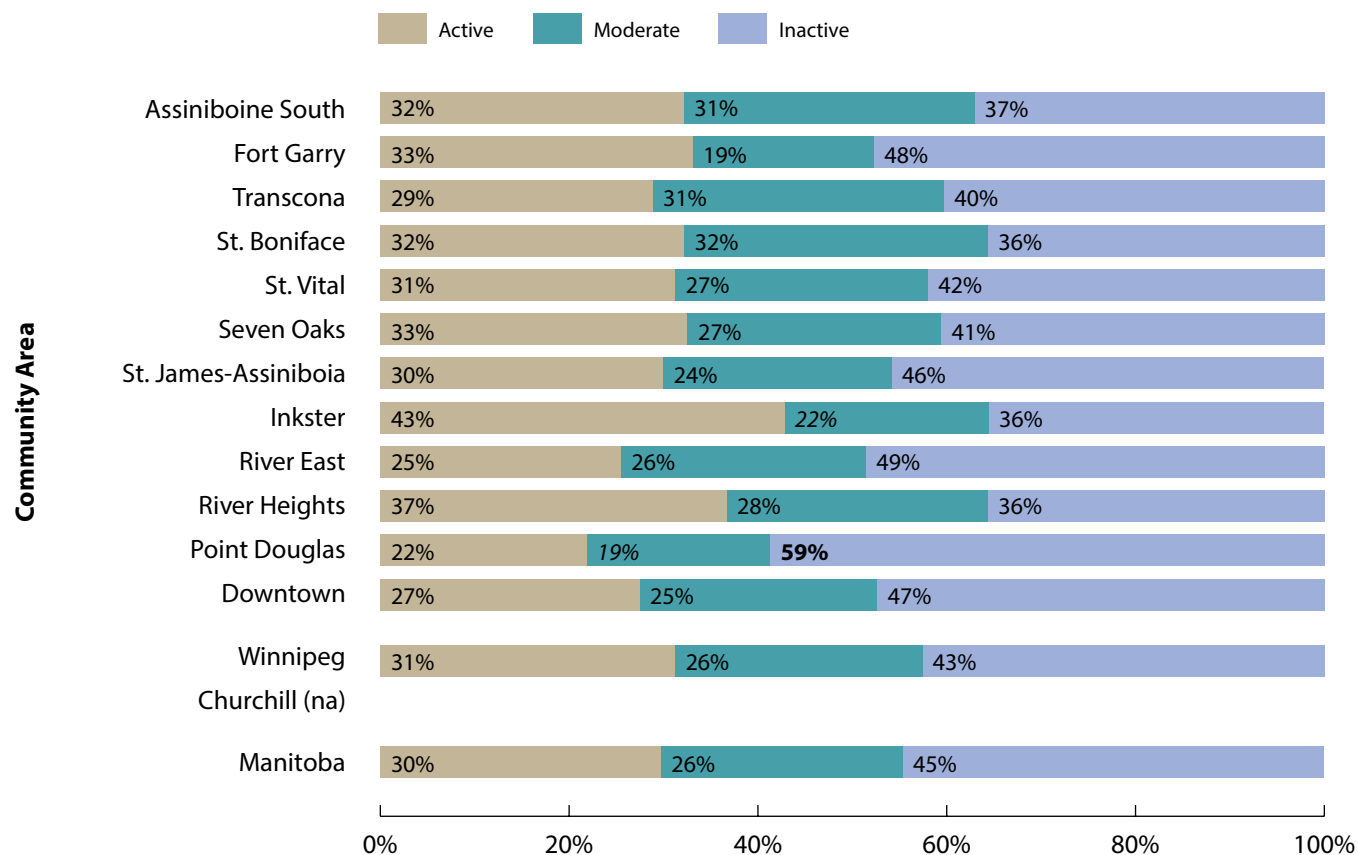
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This measure does not include work-related activities and is not comparable to total physical activity (leisure + travel + work) that was reported in previous community health assessment reports.

Figure A4.1.3.a1

Physical Activity Level (Leisure + Travel) by Winnipeg Community Area

Age- & sex-adjusted percent of residents aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

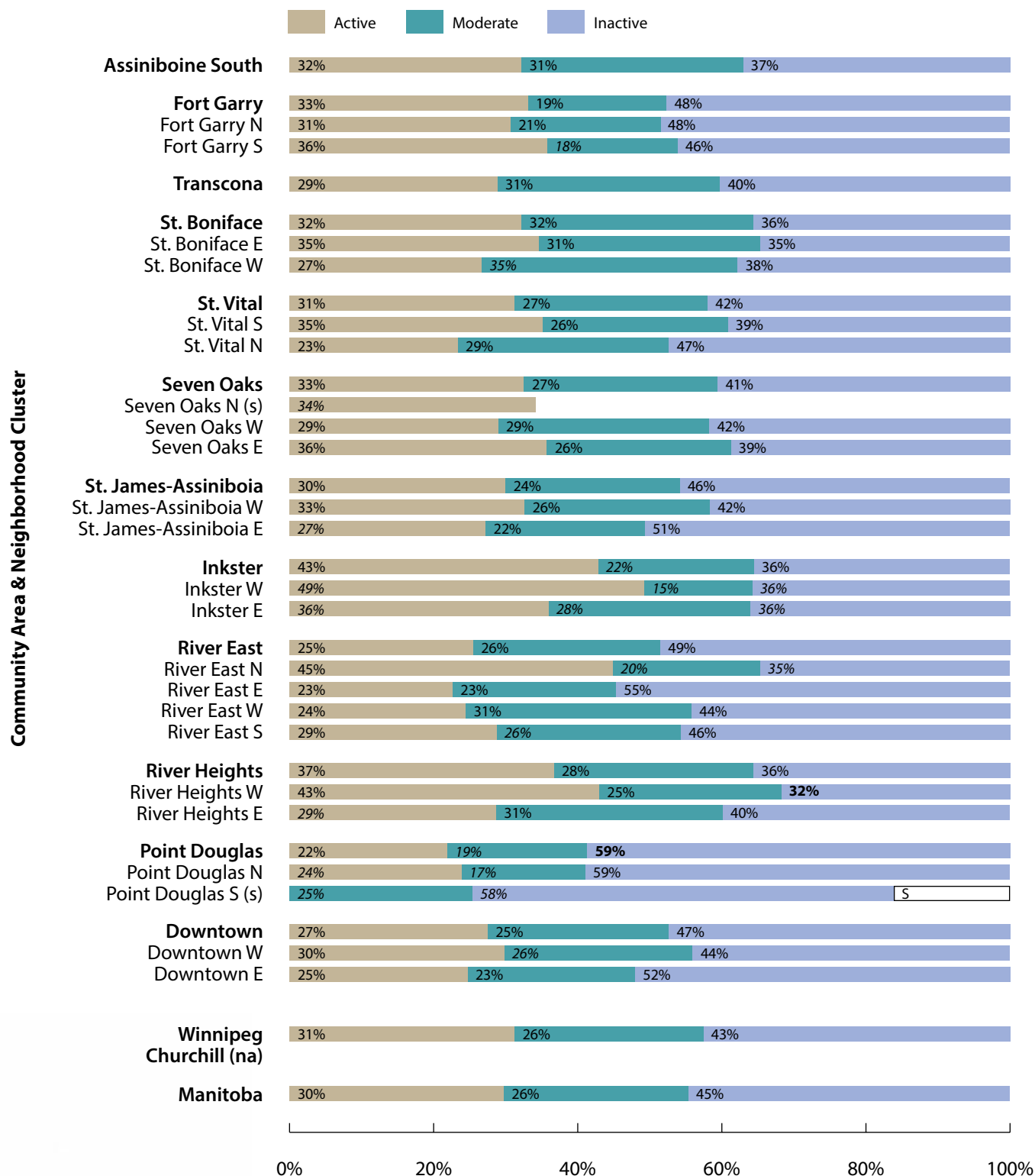
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A4.1.3.a2

Physical Activity Level (Leisure + Travel) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

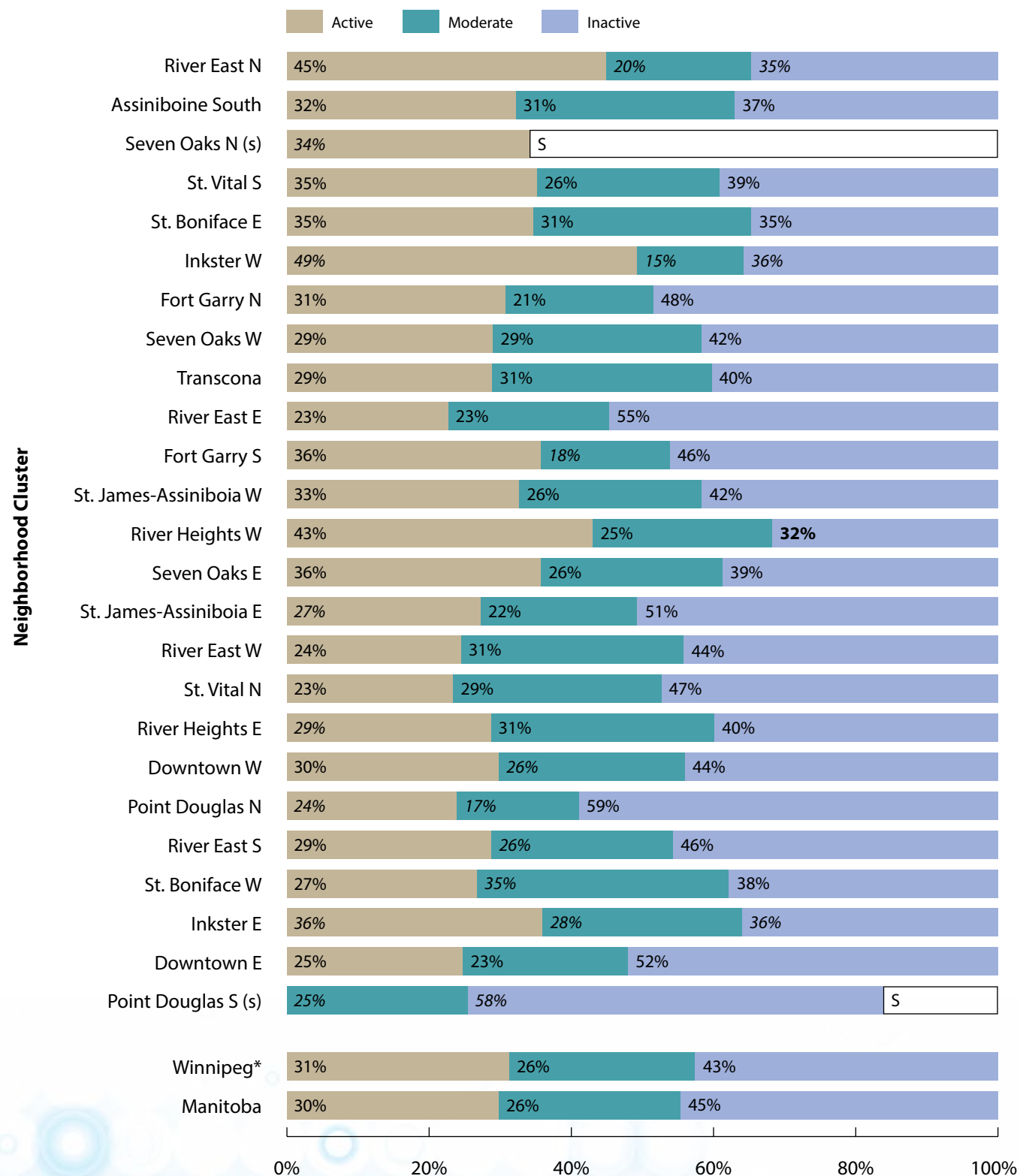
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A4.1.3.a3

Physical Activity Level (Leisure + Travel) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of residents aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2013

*Excluding Churchill

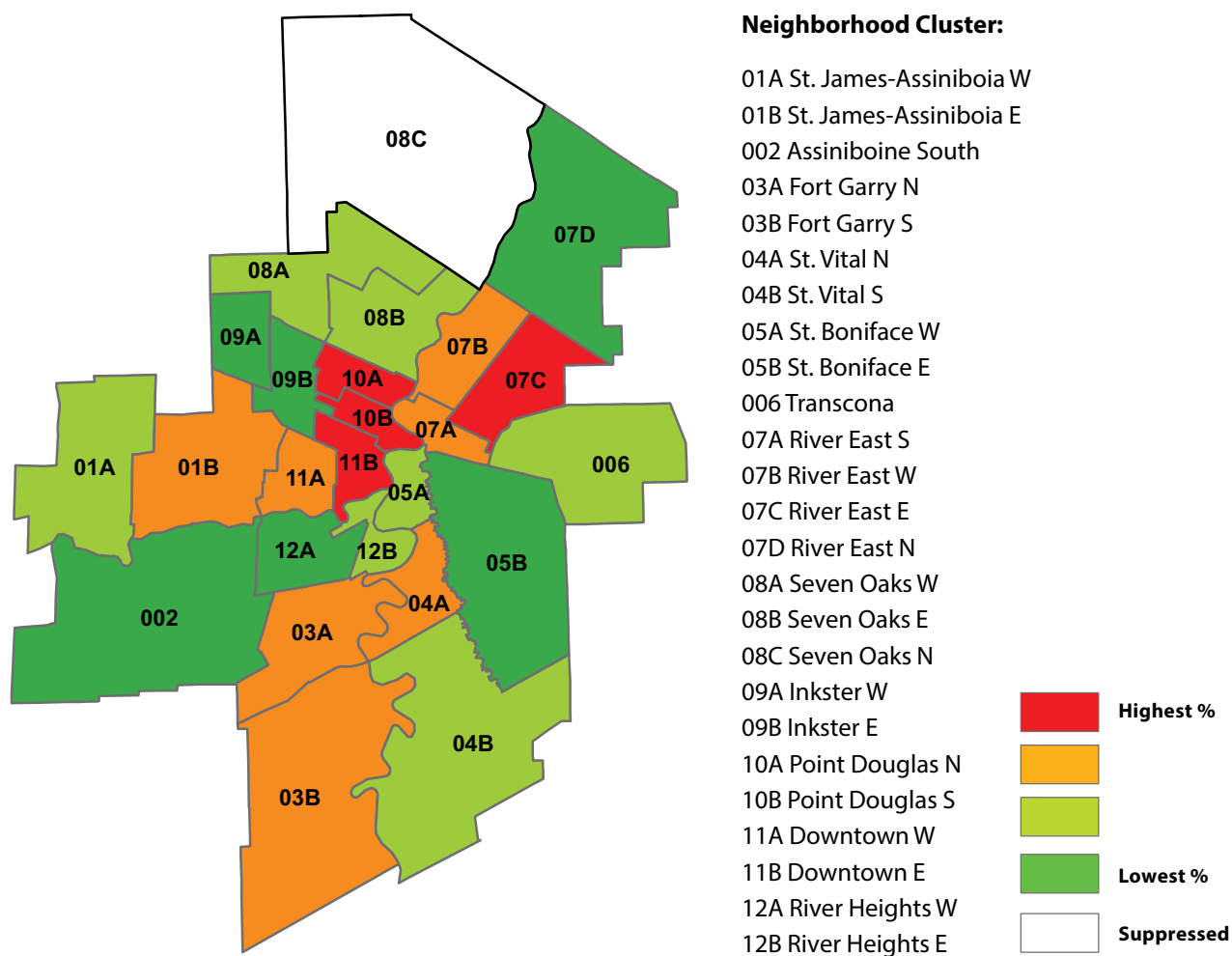
bold - indicates area's rate was statistically different from Manitoba Average

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's' - area's rate is suppressed due to small numbers or highly variable rate

Physically Inactive by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012



Indicator: Fruit and Vegetable Consumption

DEFINITION: This indicator reports the population aged 12 years and older who reported consuming fruits and vegetables “0 to 4 times per day” or “5 or more times per day”.

NUMERATOR: Residents aged 12 years and older who consumed fruits and vegetables 0 to 4 times daily.

DENOMINATOR: Total number of residents aged 12 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 years and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- In 2007-2012, 62% of residents aged 12 years and older in the Winnipeg Regional Health Authority (the Region) had fruit and vegetables less than 5 times per day, lower than the 66% reported in the period 2001-2005 (CHA, 2009).
- The percent of those consuming fruits and vegetables less than 5 times a day ranged from 77% in Point Douglas community area to 53% in St. Vital community area. The variation at the neighborhood cluster level was more significant and ranged from 78% in Inkster East to 47% in St Vital South.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

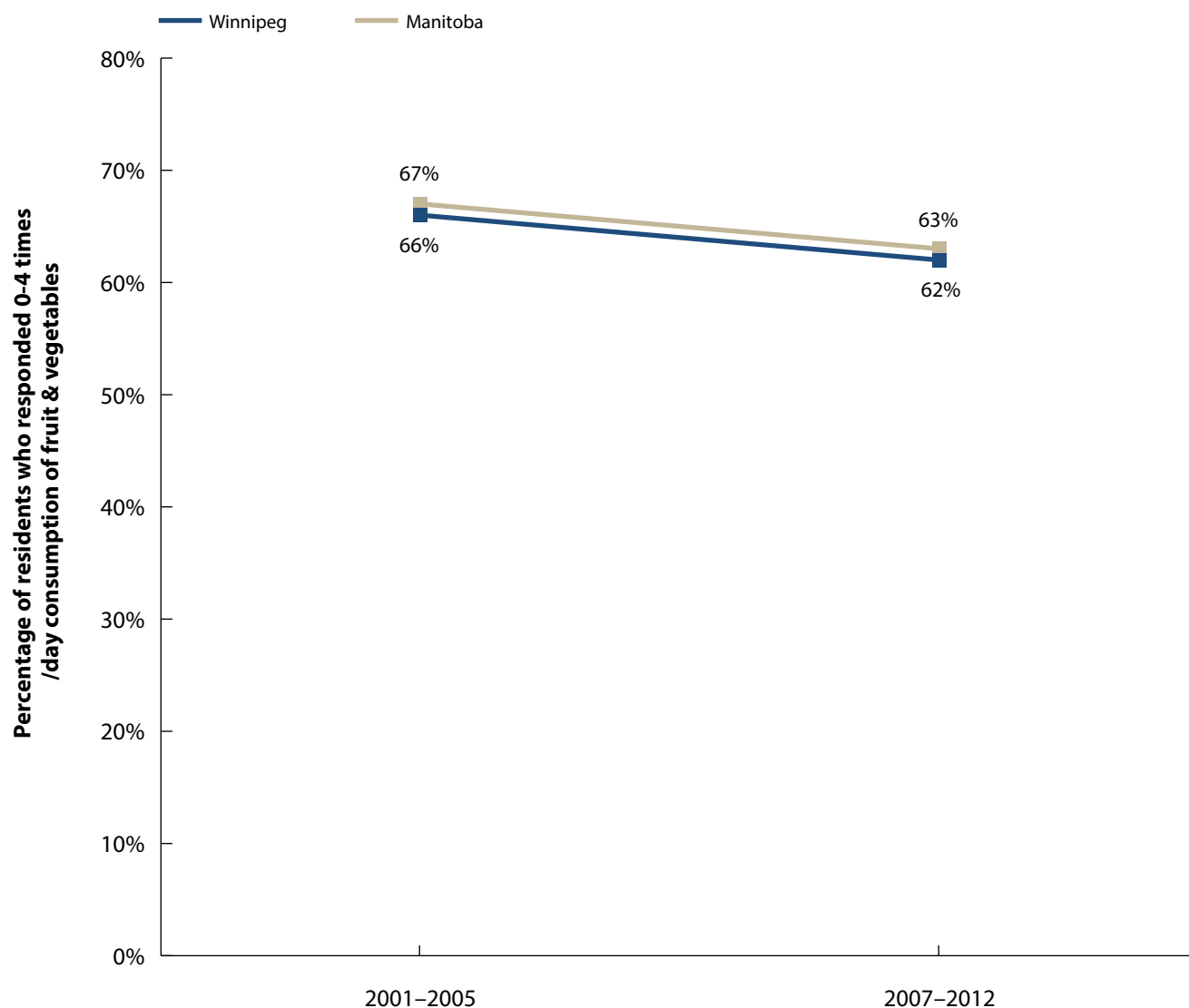
- This is a measure of fruit/vegetable consumption frequency and does not take into account the amount consumed. An alternative approach is to ask servings per day (amount, one serving equals a cup of fruit or ½ cup of vegetable).
- The Canada's Food Guide¹ is based on number of servings and recommends:
 - 4 or more servings (of fruit and vegetables) per day for children under 14;
 - 7 or more servings (of fruit and vegetables) per day for teens and adults (14 and older).
- Taken together, the findings suggest the percentage of the Region's residents meeting the recommendations may even be lower.

¹ Health Canada. *Eating well with the Canada's Food Guide*. 2011.

Figure A4.1.4.a1

Trends in Fruit & Vegetable Consumption in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 12+ who consumed fruits and vegetables 0–4 times per day, 2001–2005 & 2007–2012

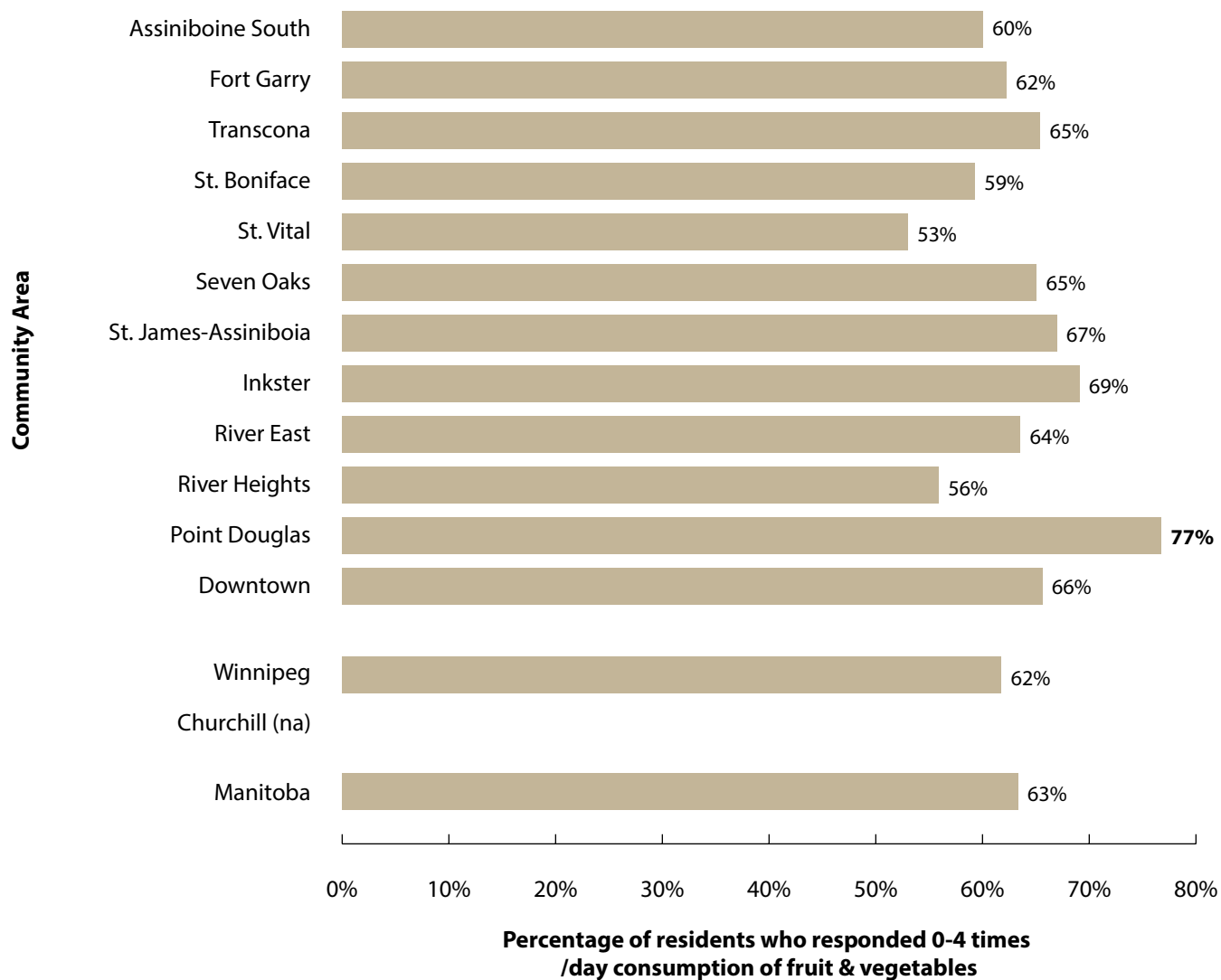


Sources: MCHP, 2009 & CCHS, 2007–2012

Figure A4.1.4.a2

Fruit & Vegetable Consumption by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 12+ who consumed fruits and vegetables 0–4 times per day from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

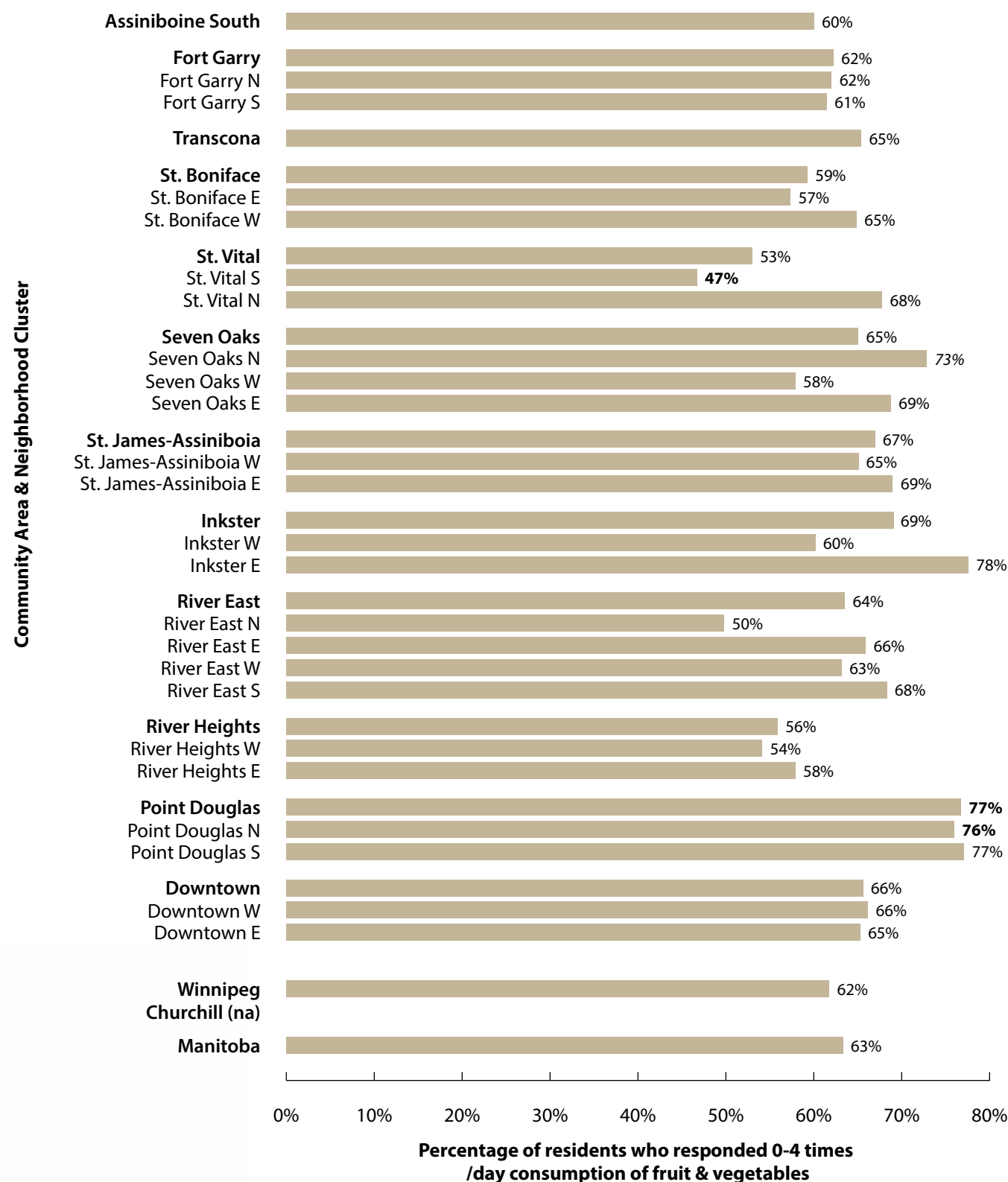
bold - indicates area's rate was statistically different from Manitoba Average

(na) - data unavailable

Figure A4.1.4.a3

Fruit & Vegetable Consumption by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ who consumed fruits and vegetables 0–4 times per day from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

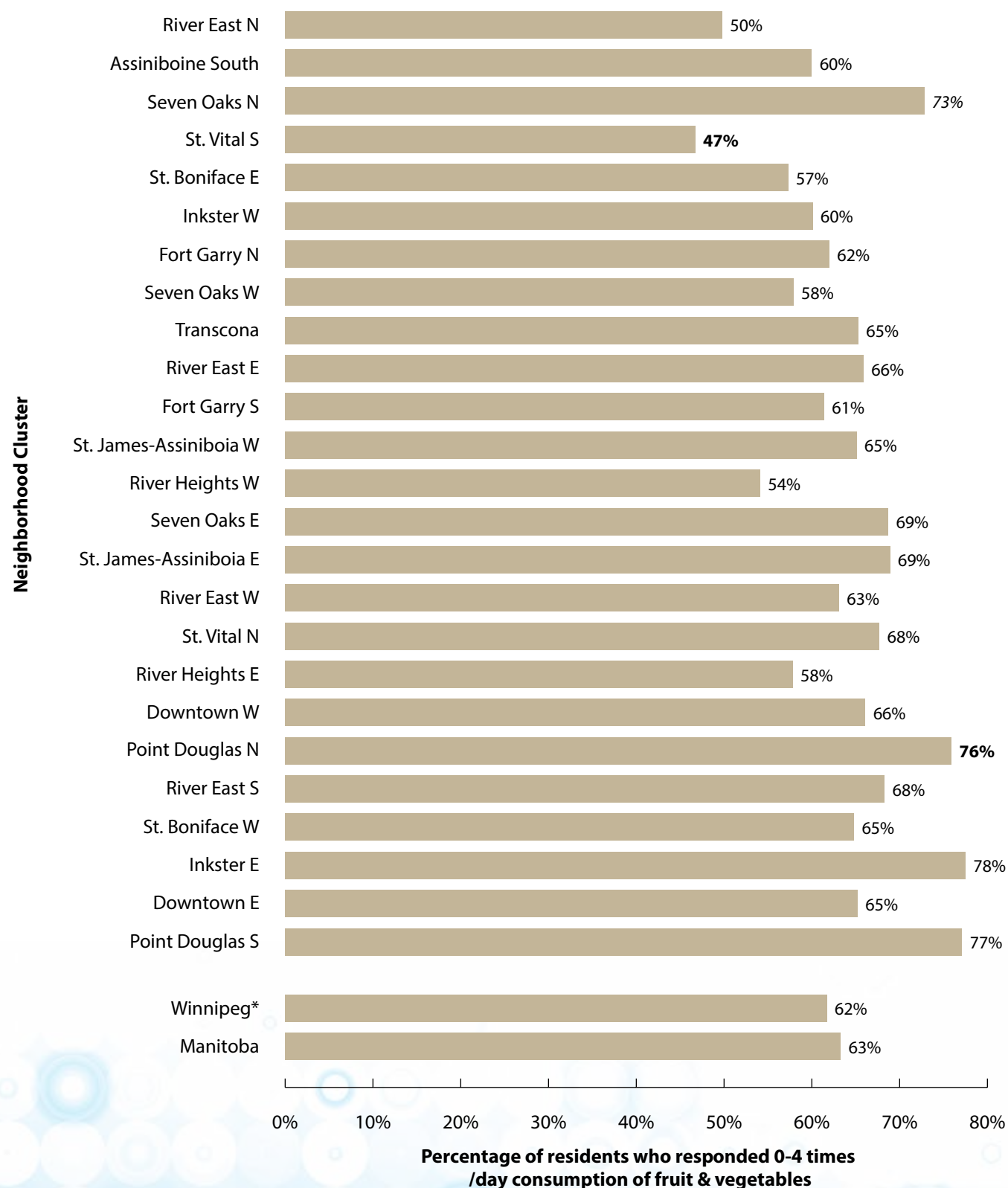
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A4.1.4.a4

Fruit & Vegetable Consumption by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ who consumed fruits and vegetables 0–4 times per day from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

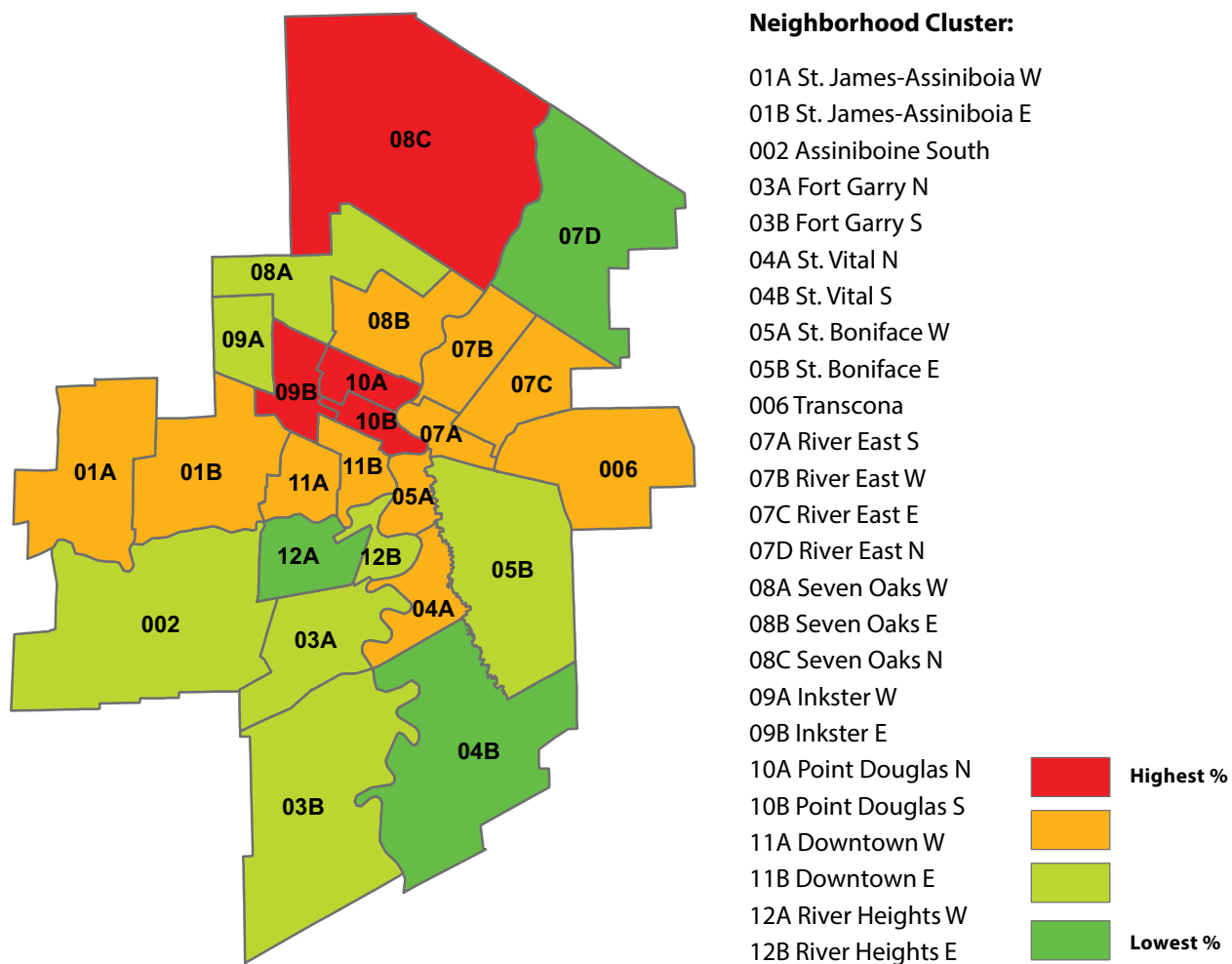
*Excluding Churchill

bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

Fruit & Vegetable Consumption (Less than 5 times per day) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 12+ who consumed fruits and vegetables 0–4 times per day from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012



Indicator: Overweight and Obesity

DEFINITION: The percentage of residents aged 18 years and older with body mass index (BMI) between 25–29 kg/m² (overweight) or 30+ kg/m² (obesity). BMI is calculated as self-reported weight (in kilograms) divided by self-reported height (in meters) squared and typically ranges from 15 to 45.

NUMERATOR: Residents aged 18 years and older with BMI between 25–29 kg/m² (overweight) or 30+ kg/m² (obesity).

DENOMINATOR: Total number of residents aged 18 years and older responding to the CCHS survey.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg Regional Health Authority (the Region) residents aged 18 years and older.

DATA SOURCES: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008 to 2011-2012) and Manitoba Center for Health Policy (MCHP), 2009

KEY FINDINGS:

- More than 50% of adults in the Region are overweight (36%) or obese (18%). The percentage has increased slightly over time.
- The percent of overweight/obese adults in the Region was consistently lower (52% in 2001-2005 and 54% in 2007-2012) than that for the whole province (56% in 2001-2005 and 57% in 2007-2012).
- The percent of overweight/obese adults ranged from 46% in St. Boniface community area to 65% in Point Douglas community area.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

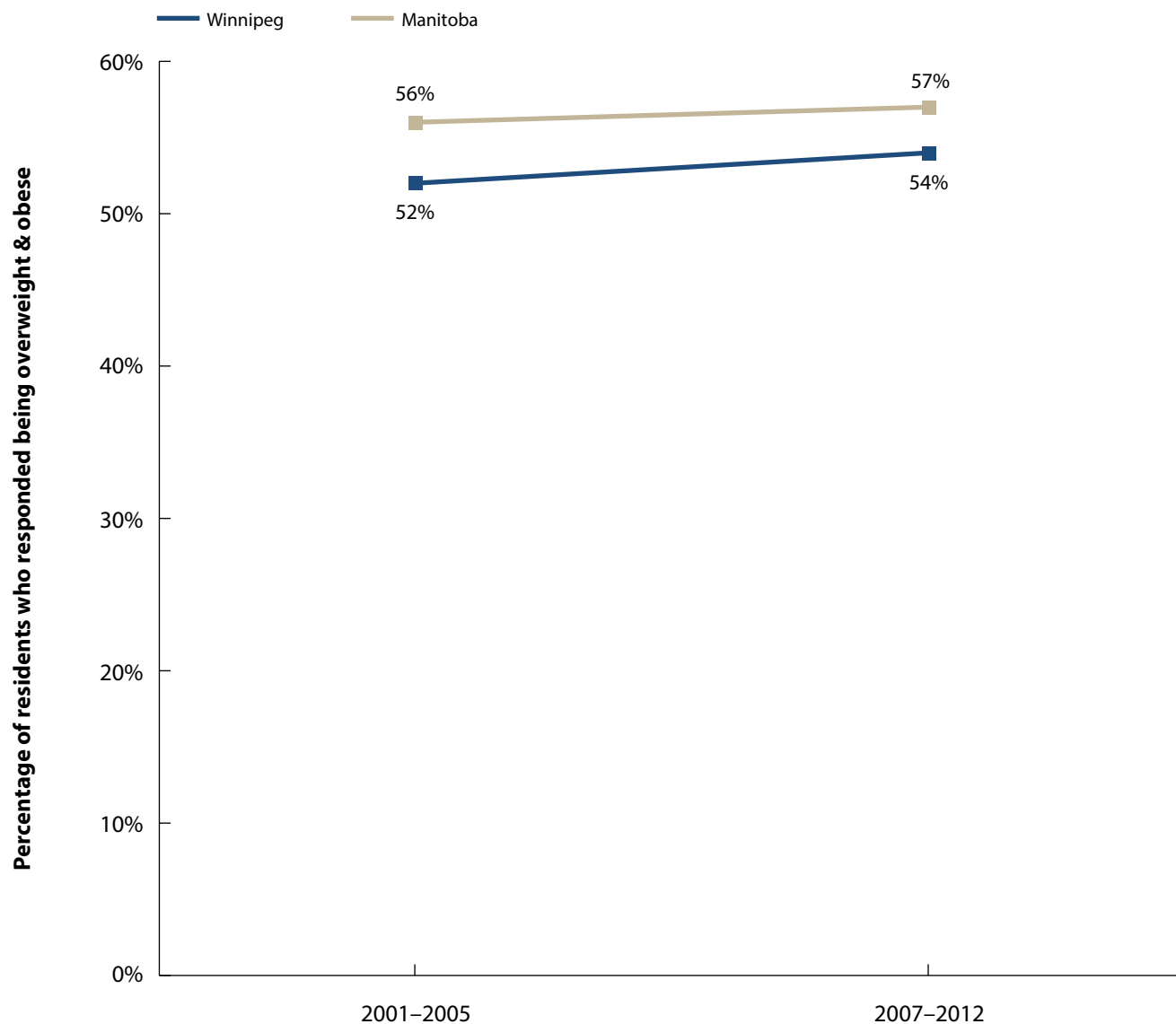
- Overweight/obesity is a public health challenge in Winnipeg. The overweight/obesity percentage may be underrepresented since survey respondents tend to underestimate their weight and overestimate their height.¹
- Obesity is a risk factor for a number of diseases including high blood pressure, diabetes, cardiovascular diseases, and certain cancers.

¹ Nawaz H, Chan W, Abdulrahman M, Larson D, Katz DL. Self-reported weight and height. Implications for obesity research. *Am J Prev Med.* 2001;20(4):294-298.

Figure A4.1.5.a1

Trends in Overweight & Obesity in Winnipeg & Manitoba

Age- & sex-adjusted percent of weighted sample aged 18+, 2001–2005 & 2007–2012

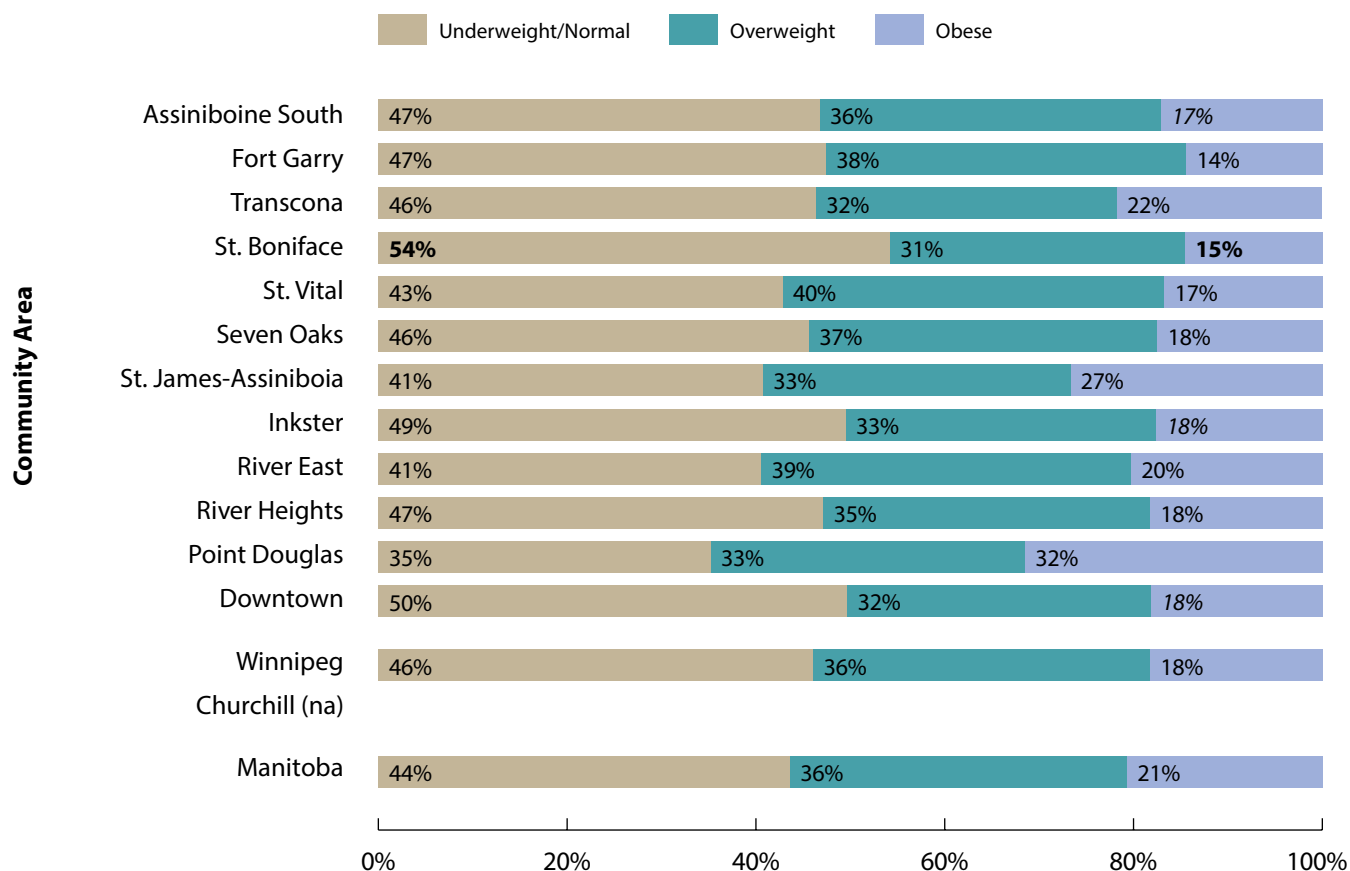


Sources: MCHP, 2009 & CCHS, 2007–2012

****The following charts of Community Area & Neighborhood Cluster are ordered by decreasing median household income.**

Overweight & Obesity by Winnipeg Community Area

Age- & sex-adjusted percent of weighted sample aged 18+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average

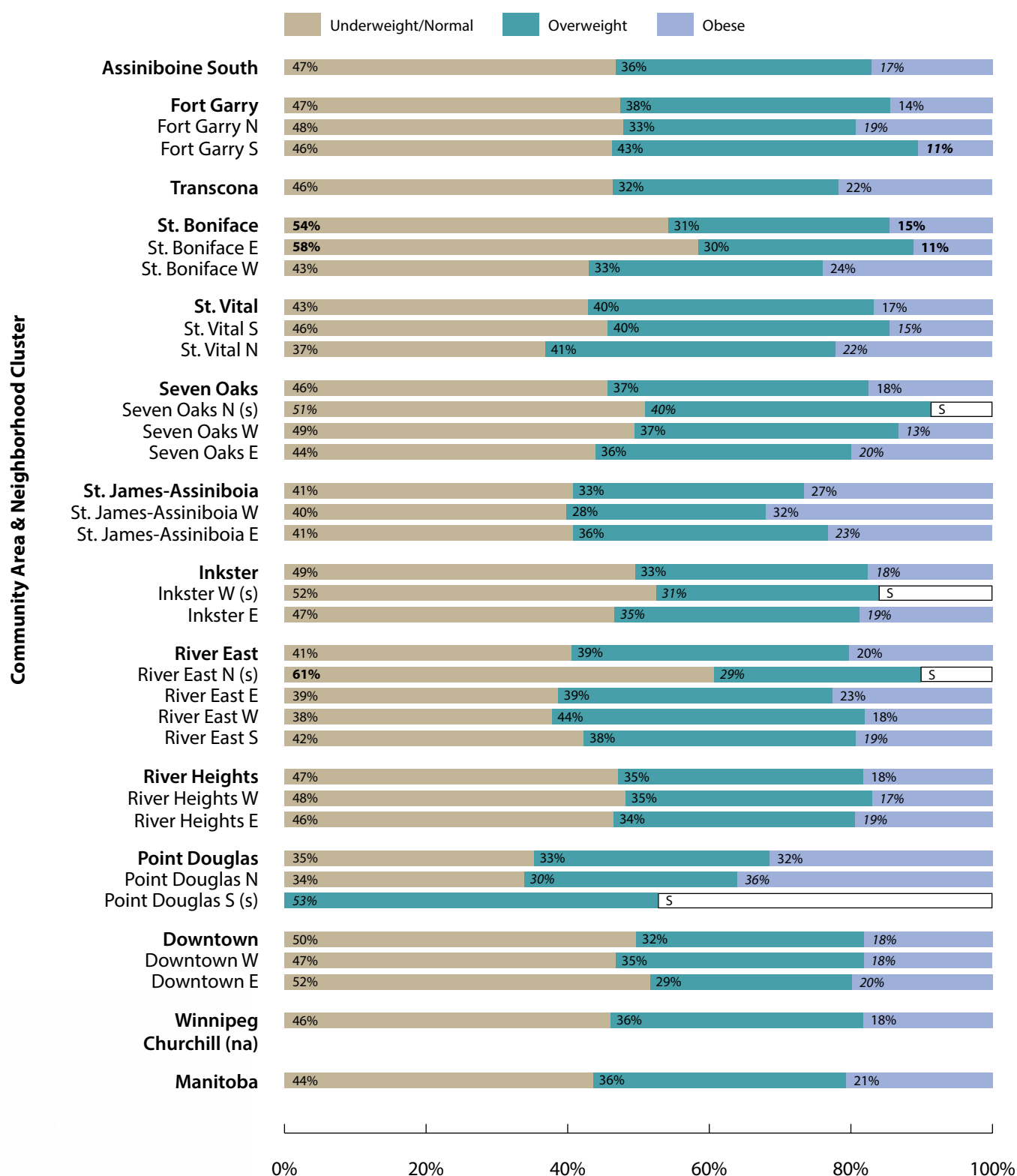
italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

(na) - data unavailable

Figure A4.1.5.a3

Overweight & Obesity by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 18+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

bold - indicates area's rate was statistically different from Manitoba Average*italics* - indicates a warning - the area's rate is highly variable and should be interpreted with caution

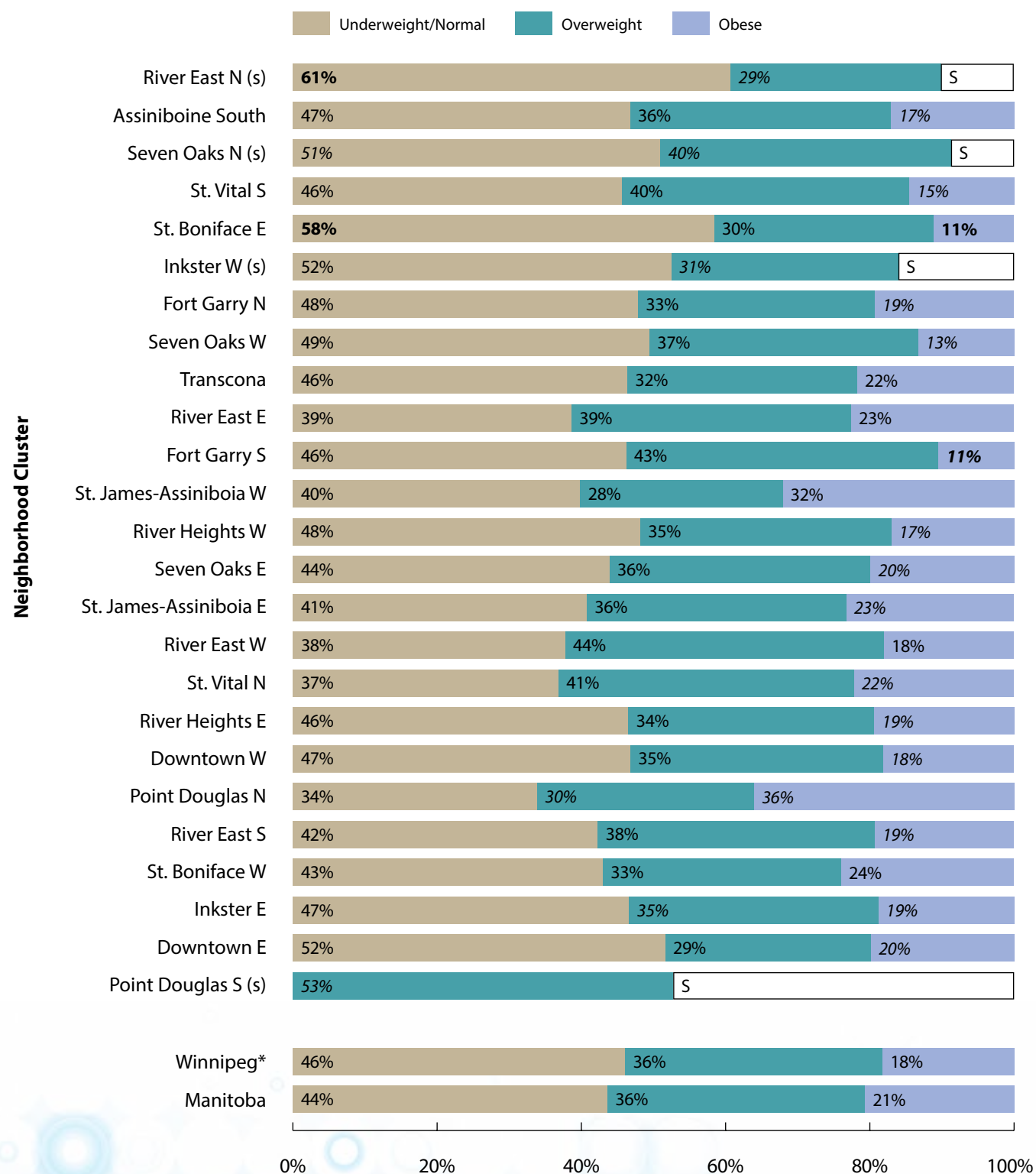
's' - area's rate is suppressed due to small numbers or highly variable rate

(na) - data unavailable

Figure A4.1.5.a4

Overweight & Obesity by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 18+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

*Excluding Churchill

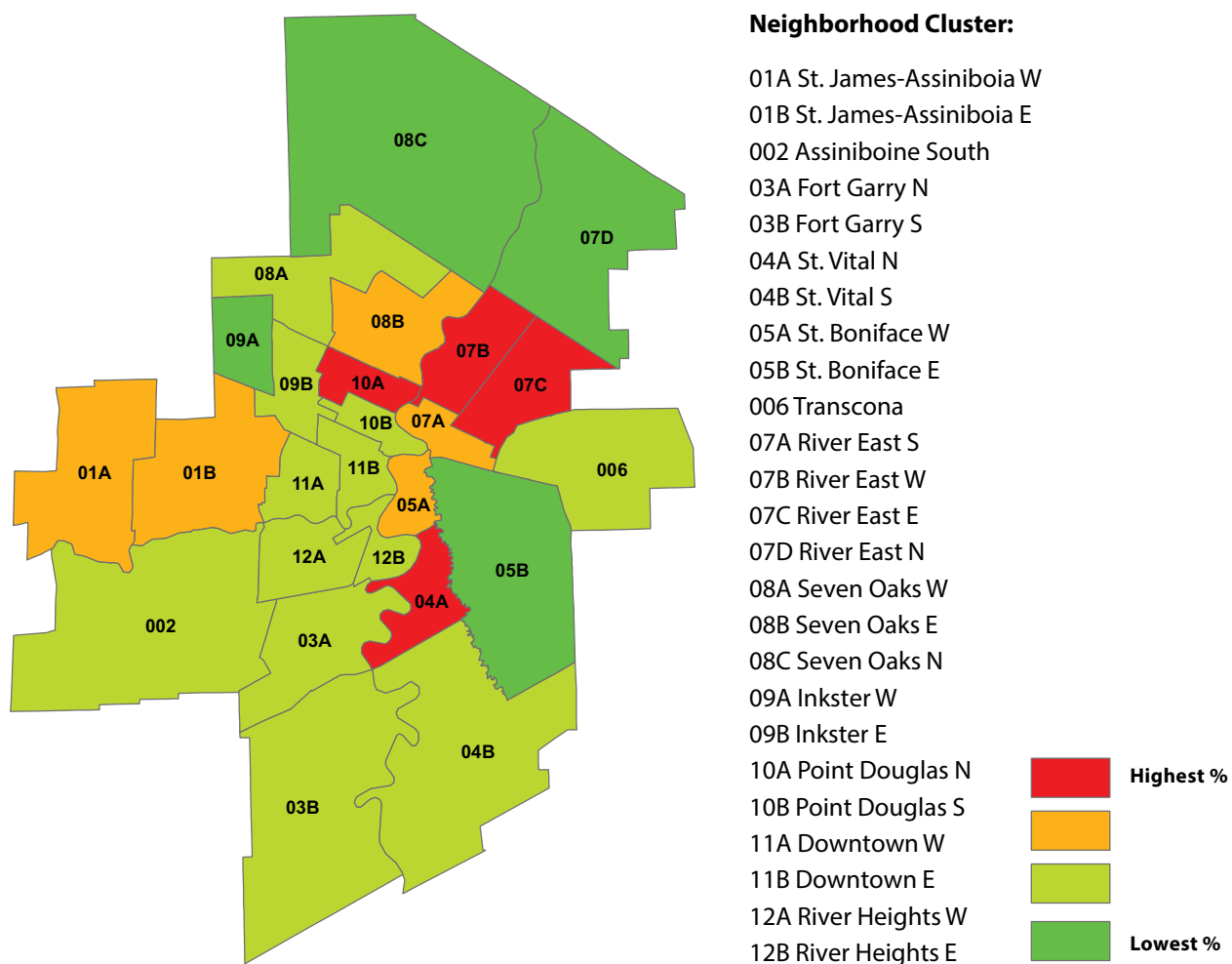
bold - indicates area's rate was statistically different from Manitoba Average

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' - area's rate is suppressed due to small numbers or highly variable rate

Overweight & Obesity by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of weighted sample aged 18+ from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012



Indicator: Immunization Rates for Children Aged 2

DEFINITION: The percentage of children with complete immunizations at age 2 years. Immunization is considered to be complete when a child has received all of the recommended doses for given antigen(s) according to the provincial immunization schedule.

NUMERATOR: Number of children at age 2 years with complete immunization coverage.

DENOMINATOR: Number of children at age 2 years.

CALCULATION: Rates were calculated for 2002/03 and 2007/08 and were sex-adjusted to the Manitoba population aged 2 years as of December 31 of the year of interest.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2011

KEY FINDINGS:

- The percent of children aged 2 years with complete immunization coverage (including tetanus, diphtheria, pertussis, polio, mumps, rubella and Haemophilus influenza type b (Hib) was 72.4% in Winnipeg and 73.7% in Churchill in 2007/08; these percentages are similar to previous measures of immunization coverage.
- Complete immunization coverage at age 2 years varied across the Winnipeg Regional Health Authority (the Region). Complete immunizations in Point Douglas and Downtown community areas (CAs) were consistently lower than the provincial average.
- Children from low income communities were less likely to be vaccinated: in 2007/08, complete immunization coverage for children aged 2 years in the highest income CA (Assiniboine S) was 1.25 times of that in the lowest income CA (Downtown). Complete immunization coverage for the highest income quintile of the Region's residents was 1.3 times that of the lowest income quintile in 2007/08.

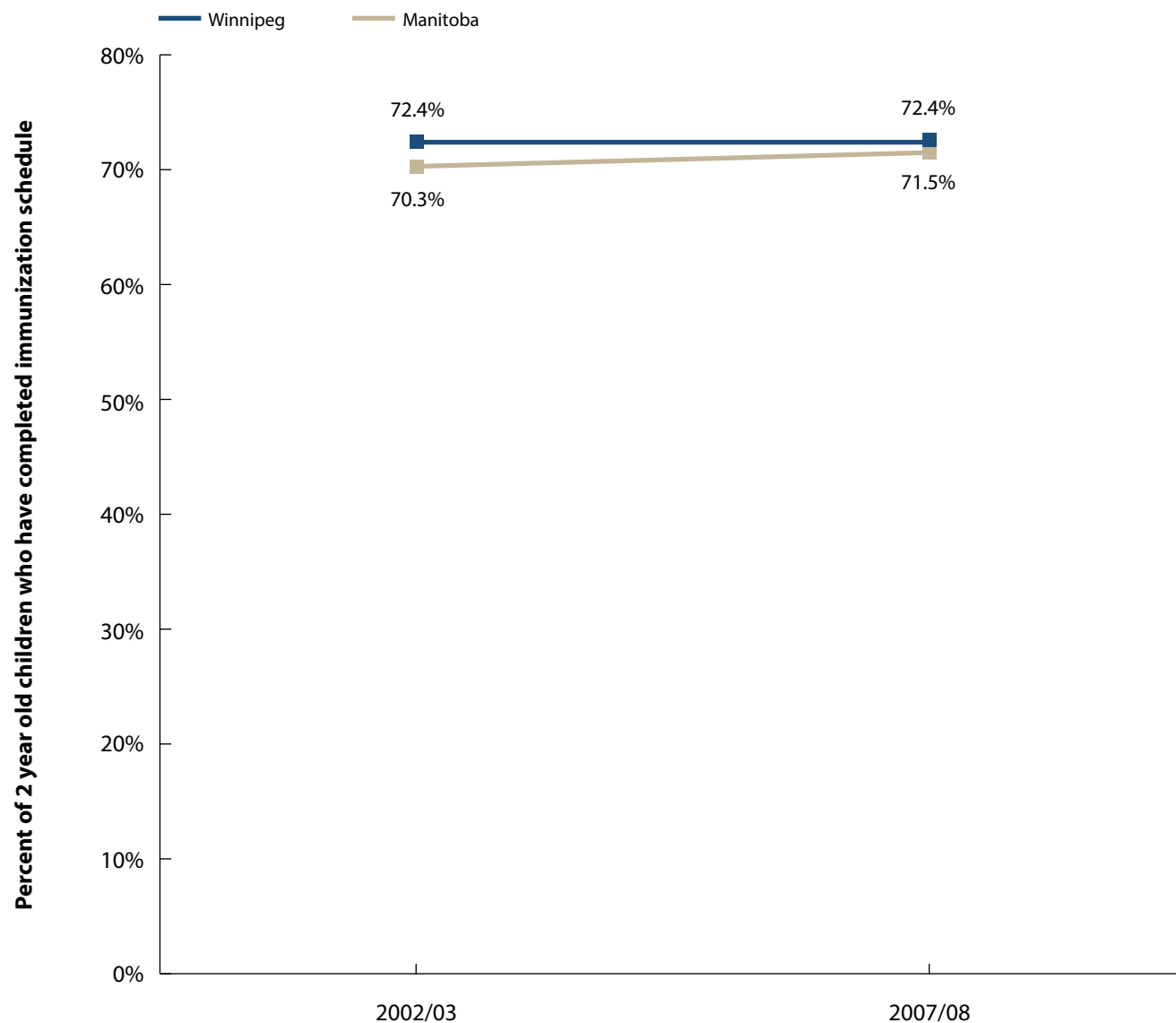
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Immunization is an effective way to protect against vaccine-preventable diseases and the extent of immunization coverage in the population is a measure of the success of immunization programs.
- Improving complete immunization coverage is a public health challenge particularly in low income communities in the Region.

Figure A4.2.1.a1

Trends in Immunization Rates for Children Aged 2 Years in Winnipeg & Manitoba

Sex-adjusted percent of 2-year old children who have completed immunization schedules, 2002/03–2007/08



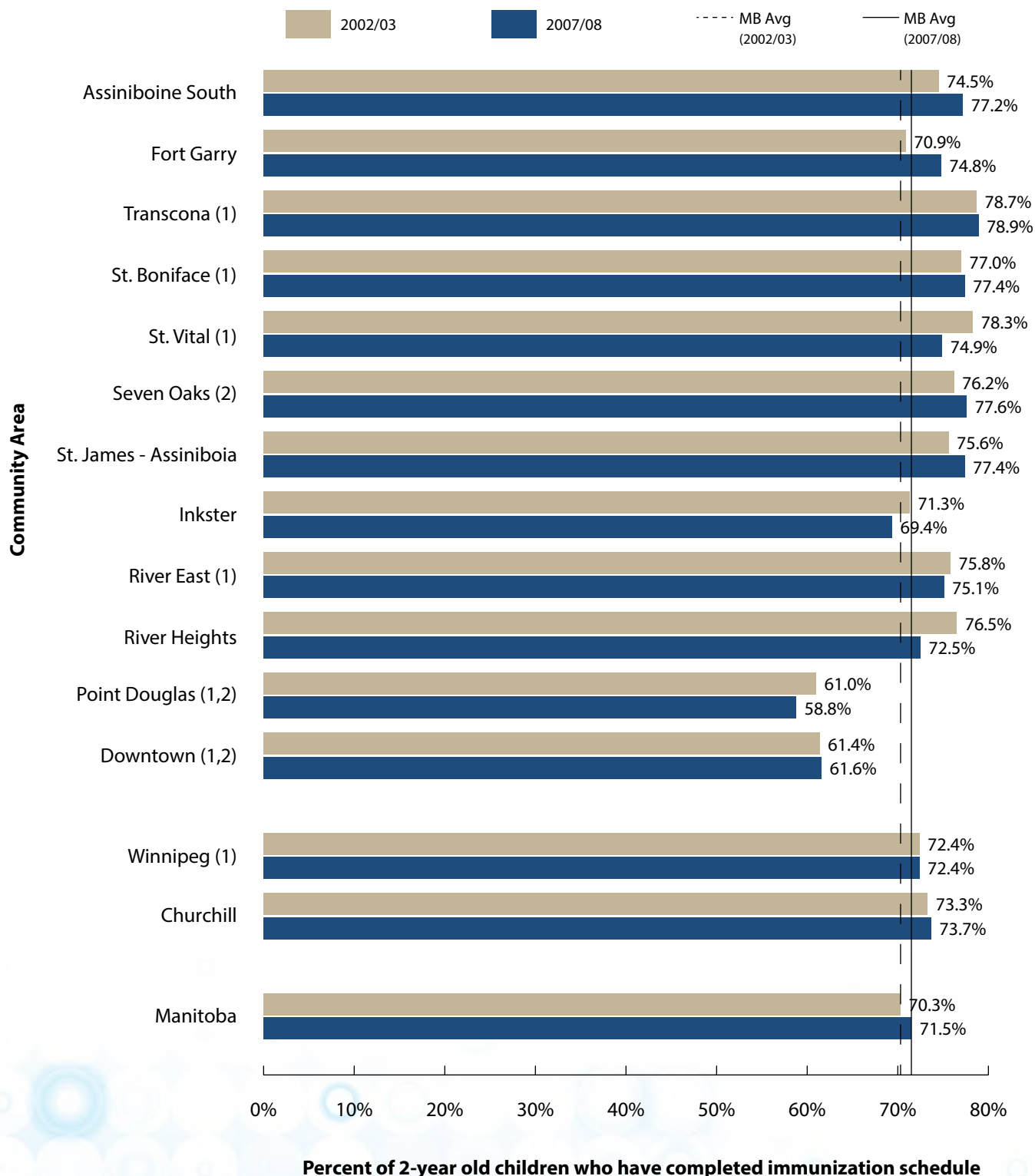
Source: Manitoba Center for Health Policy, 2011

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A4.2.1.a2

Immunization Rates for Children Aged 2 Years by Winnipeg Community Area

Sex-adjusted percent of 2-year old children who have completed immunization schedules, 2002/03 & 2007/08



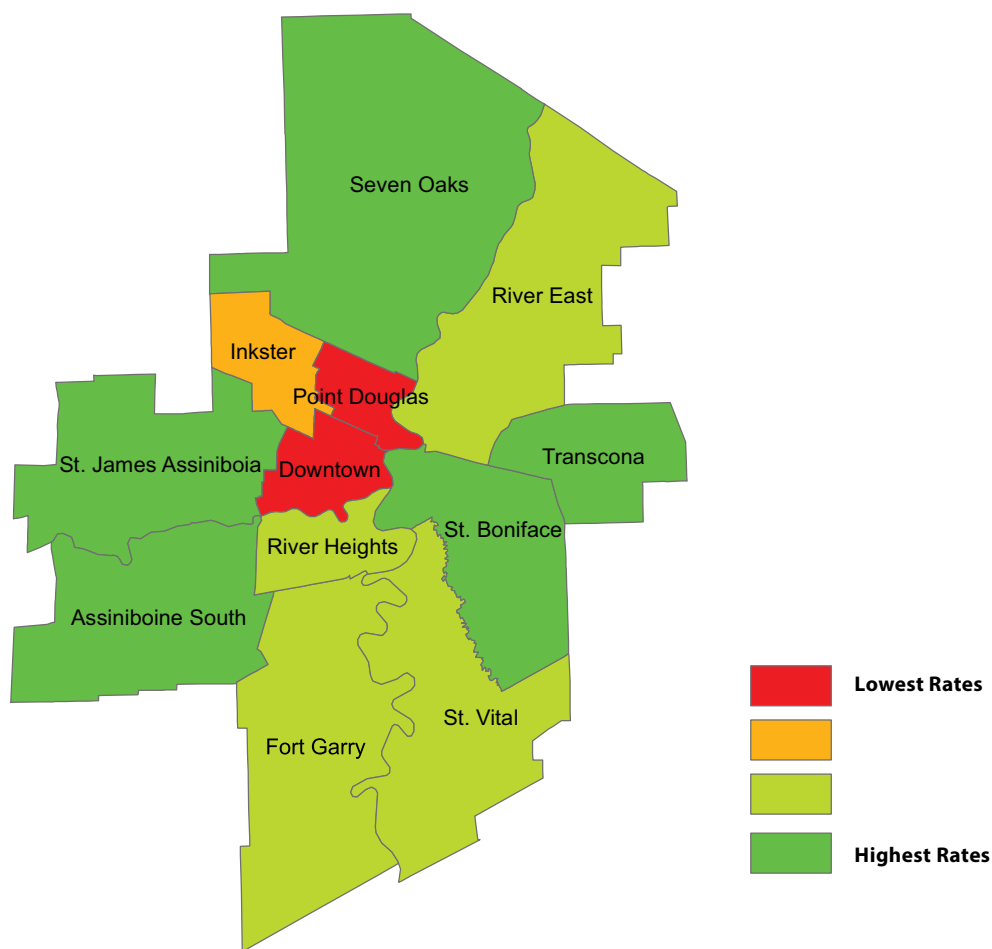
Source: Manitoba Center for Health Policy, 2011

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Immunization Rate for Children Aged 2 Years by Winnipeg Community Area

Sex-adjusted percent of 2-year old children who have completed immunization schedules, 2007/08



Source: Manitoba Center for Health Policy, 2011

Table A4.2.1.a1

Health Inequality in Child Immunization at Age 2, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03 % children age 2 with complete coverage	2007/08 % children age 2 with complete coverage
Child Immunization at Age 2 by <i>Community Area (CA)</i> <i>median household Income</i>		
Highest income CA (Assiniboine South)	74.5%	77.2%
Lowest income CA (Downtown)	61.4%	62.0%
Absolute difference (Highest income CA – Lowest income CA)	13.1%	15.2%
Ratio (Highest income CA / Lowest income CA)	1.21	1.25
Child Immunization at Age 2 by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	78.5%	77.5%
U4	78.2%	80.5%
U3	75.2%	74.5%
U2	71.6%	73.0%
Lowest Urban Income Quintile (U1)	62.1%	59.8%
Absolute difference (U5-U1)	16.4%	17.7%
Ratio (U5/U1)	1.26	1.30

Source: Manitoba Center for Health Policy, 2011



Indicator: Immunization Rates for Children Aged 7

DEFINITION: The percentage of children with complete immunizations at age 7 years. Immunization is considered to be complete when a child has received all of the recommended doses for given antigen(s) according to the provincial immunization schedule.

NUMERATOR: Number of children at age 7 years with complete immunization coverage.

DENOMINATOR: Number of children at age 7 years.

CALCULATION: Rates were calculated for 2002/03 and 2007/08 and were sex-adjusted to the Manitoba population aged 7 years as of December 31 of the year of interest.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2011

KEY FINDINGS:

- Complete immunization coverage (including tetanus, diphtheria, pertussis, polio, mumps, rubella and Haemophilus influenza type b (Hib)) at age 7 years in the Winnipeg Regional Health Authority (the Region) declined from 72.3% in 2002/03 to 66.9% in 2007/08.
- The overall complete immunization coverage in the Region for children age 7 years was lower than the provincial average.
- Complete immunization coverage at age 7 years varied across the Region. Complete immunizations in community areas (CAs) including Fort Garry, Point Douglas, and Downtown were consistently lower than the provincial average.
- Children from low income communities were less likely to be vaccinated: in 2007/08, the complete immunization coverage for children aged 7 years in the highest income CA (Assiniboine S) was 1.28 times of that in the lowest income CA (Downtown). Complete immunization coverage for the highest income quintile of the Region's residents was 1.28 times that of the lowest income quintile in 2007/08.

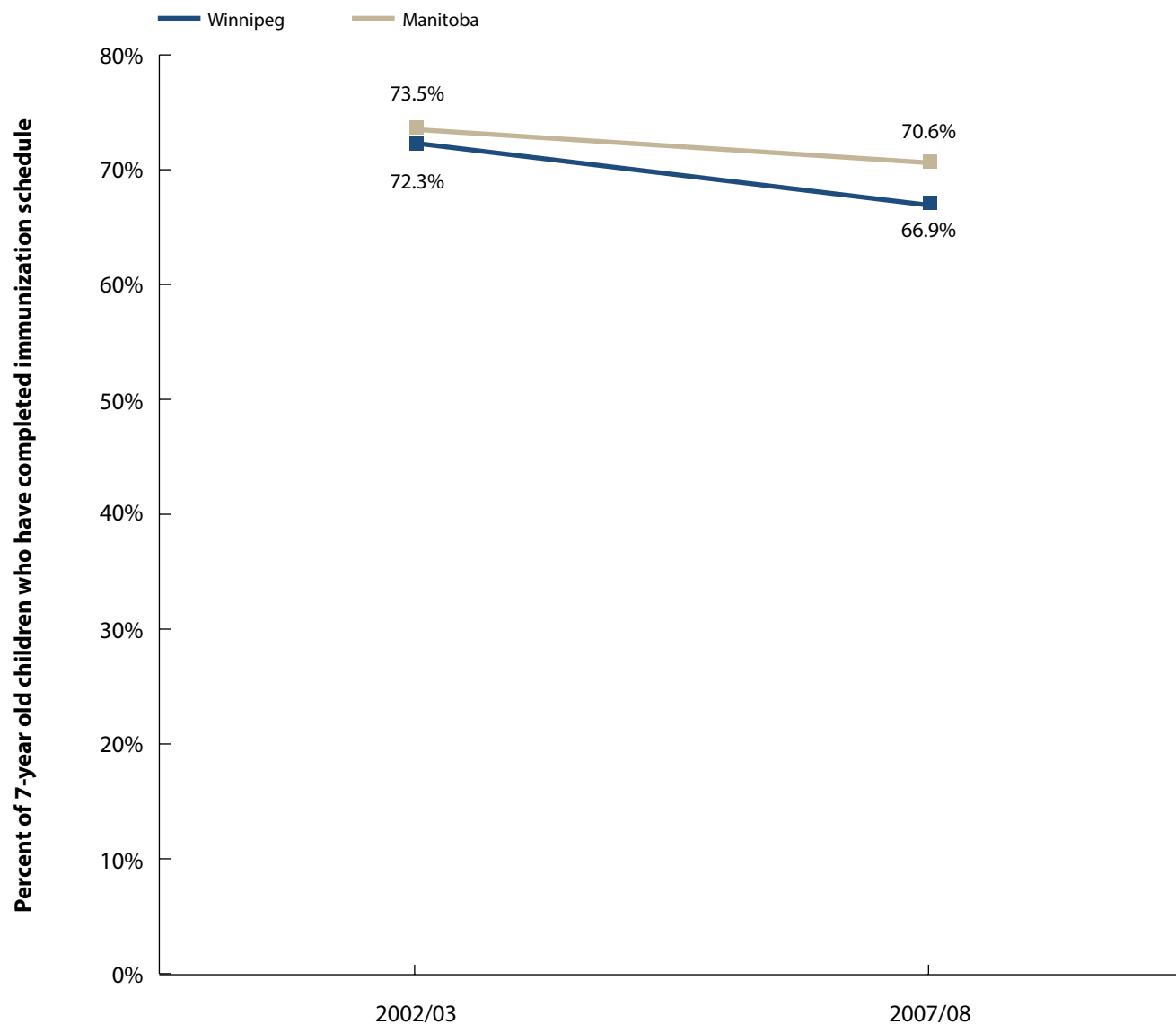
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Immunization is an effective way to protect against vaccine-preventable diseases and the extent of immunization coverage in the population is a measure of the success of immunization programs.
- Improving complete immunization coverage is a public health challenge particularly in low income communities in the Region.
- The declining coverage at age 7 years raises a public health concern.

Figure A4.2.1.b1

Trends in Immunization Rates for Children Aged 7 Years in Winnipeg & Manitoba

Sex-adjusted percent of 7-year old children who have completed immunization schedules, 2002/03–2007/08



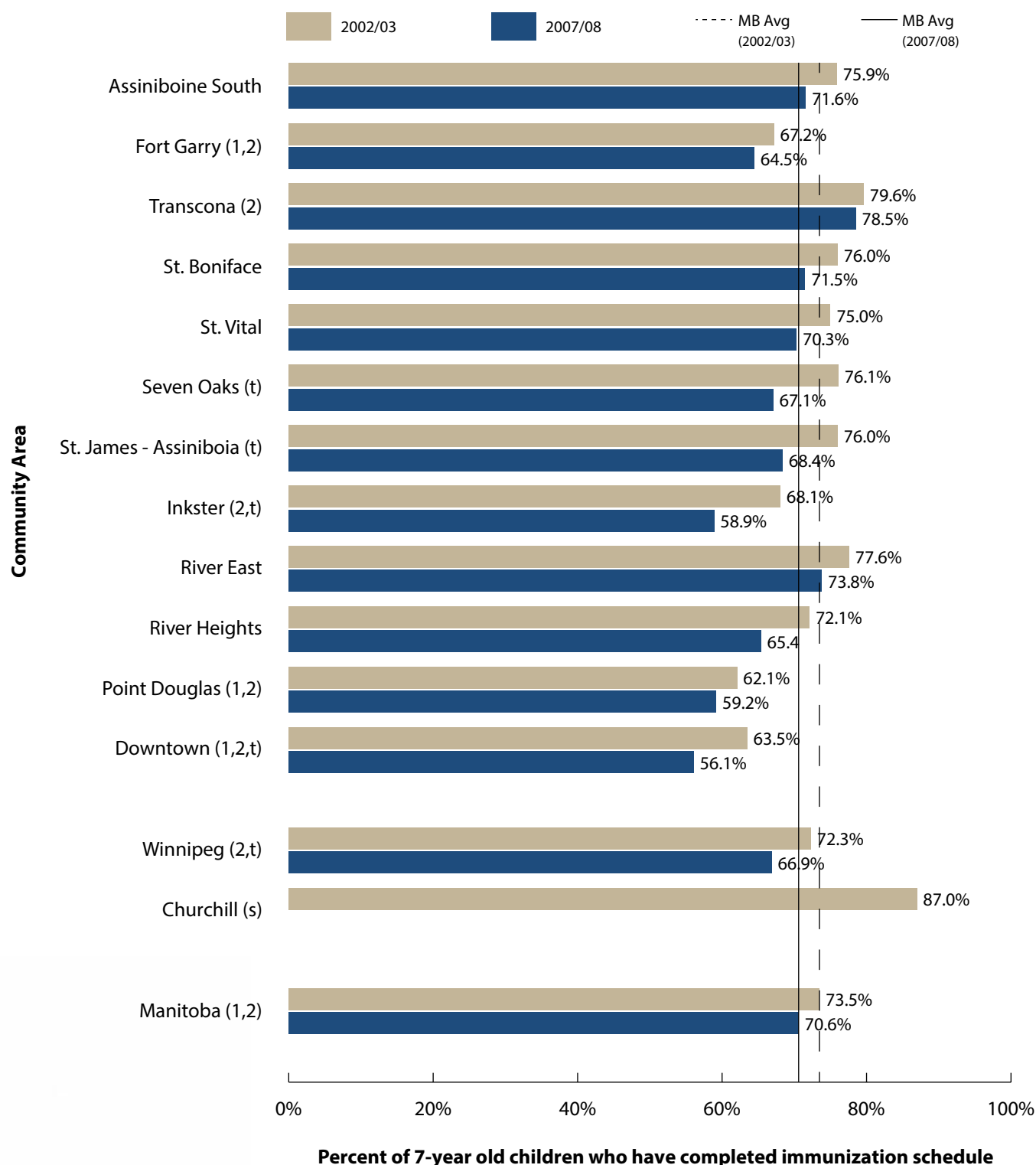
Source: Manitoba Center for Health Policy, 2011

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A4.2.1.b2

Immunization Rates for Children Aged 7 Years by Winnipeg Community Area

Sex-adjusted percent of 7-year old children who have completed immunization schedules, 2002/03 & 2007/08



Source: Manitoba Center for Health Policy, 2011

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

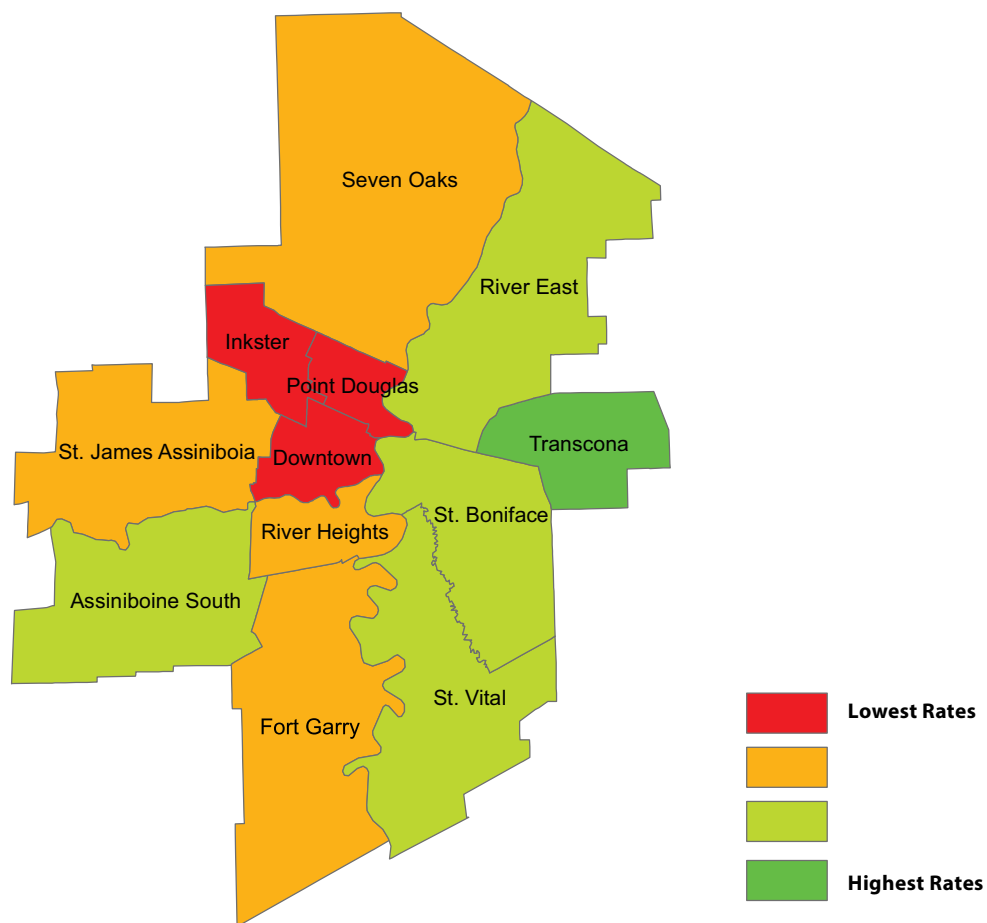
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates change over time was statistically significant for that area

's' indicates data suppressed due to small numbers

Immunization Rates for Children Aged 7 Years by Winnipeg Community Area

Sex-adjusted percent of 7-year old children who have completed immunization schedules, 2007/08



Source: Manitoba Center for Health Policy, 2011

Table A4.2.1.b1

Health Inequality in Child Immunizations at Age 7, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03 % children age 7 with complete coverage	2007/08 % children age 7 with complete coverage
Child Immunization at Age 7 by <i>Community Area (CA)</i> <i>median household income</i>		
Highest income CA (Assiniboine South)	75.9%	71.6%
Lowest income CA (Downtown)	63.5%	56.1%
Absolute difference (Highest income CA – Lowest income CA)	12.4%	15.5%
Ratio (Highest income CA / Lowest income CA)	1.20	1.28
Child Immunization at Age 7 by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	79.1%	73.8%
U4	78.9%	73.2%
U3	75.4%	69.0%
U2	70.3%	63.9%
Lowest Urban Income Quintile (U1)	61.2%	57.8%
Absolute difference (U5-U1)	17.9%	16.0%
Ratio (U5/U1)	1.29	1.28

Source: Manitoba Centre for Health Policy, 2011



Indicator: Immunization Rates for Children Aged 17

DEFINITION: The percentage of children with complete immunizations at age 17 years. Immunization is considered to be complete when a child has received all of the recommended doses for given antigen(s) according to the provincial immunization schedule.

NUMERATOR: Number of children at age 17 years with complete immunization coverage.

DENOMINATOR: Number of children at age 17 years.

CALCULATION: Rates were calculated for 2002/03 and 2007/08 and were sex-adjusted to the Manitoba population aged 17 years as of December 31 of the year of interest.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2011

KEY FINDINGS:

- Only 54.3% of 17-year olds in the Winnipeg Regional Health Authority (the Region) had complete immunization coverage (including tetanus, diphtheria, pertussis, polio, mumps, rubella and Haemophilus influenza type b (Hib)) in 2007/08, an increase from 49.3% in 2002/03.
- Complete immunization coverage at age 17 years in Winnipeg was consistently lower than the provincial average.
- Complete immunization coverage at age 17 years varied across the Region. Complete immunization coverage in community areas (CAs) including Inkster, Point Douglas, and Downtown were consistently lower than the provincial average.
- Children from low income communities were less likely to be vaccinated: in 2007/08, the complete immunization coverage for children aged 17 years in the highest income CA (Assiniboine S) was 1.40 times of that in the lowest income CA (Downtown). Complete immunization coverage for the highest income quintile of the Region's residents was 1.63 times that of the lowest income quintile in 2007/08.

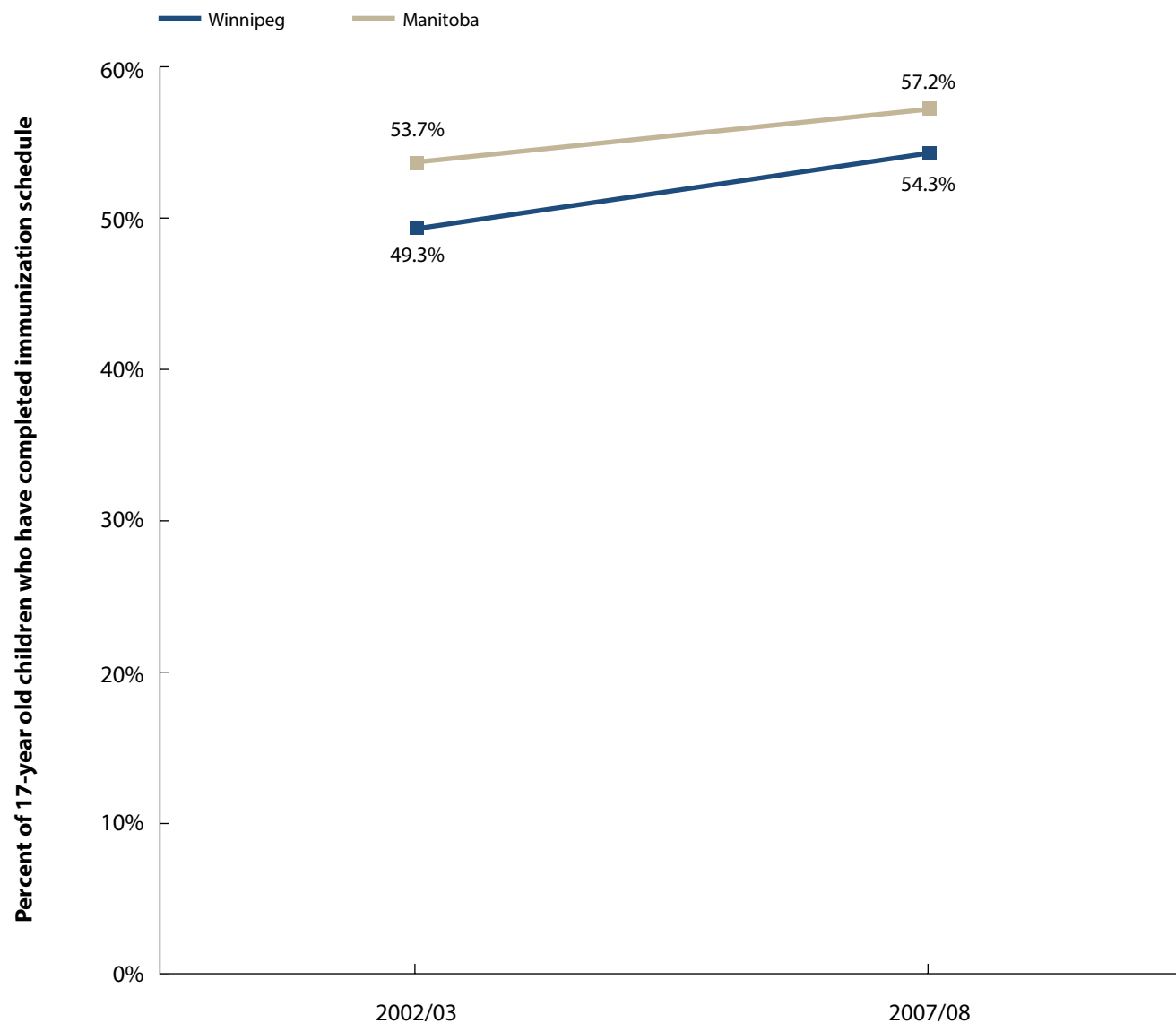
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Immunization is an effective way to protect against vaccine-preventable diseases and the extent of immunization coverage in the population is a measure of the success of immunization programs.
- Improving complete immunization coverage is a public health challenge particularly in low income communities in the Region.

Figure A4.2.1.c1

Trends in Immunization Rates for Children Aged 17 Years in Winnipeg & Manitoba

Sex-adjusted percent of 17-year old children who have completed immunization schedules, 2002/03–2007/08

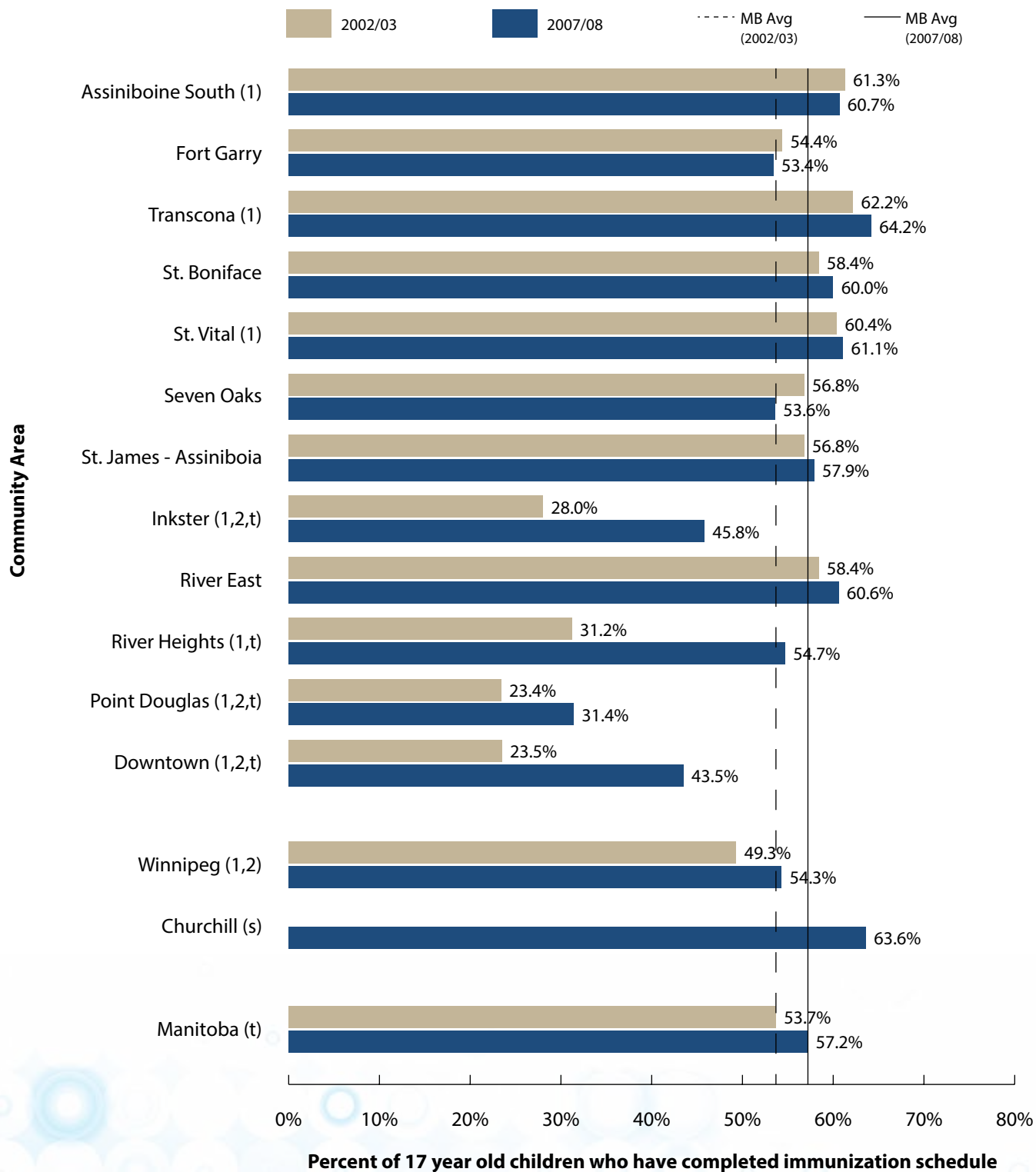


Source: Manitoba Center for Health Policy, 2011

Figure A4.2.1.c2

Immunization Rates for Children Aged 17 Years by Winnipeg Community Area

Sex-adjusted percent of 17-year old children who have completed immunization schedules, 2002/03 & 2007/08



Source: Manitoba Center for Health Policy, 2011

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

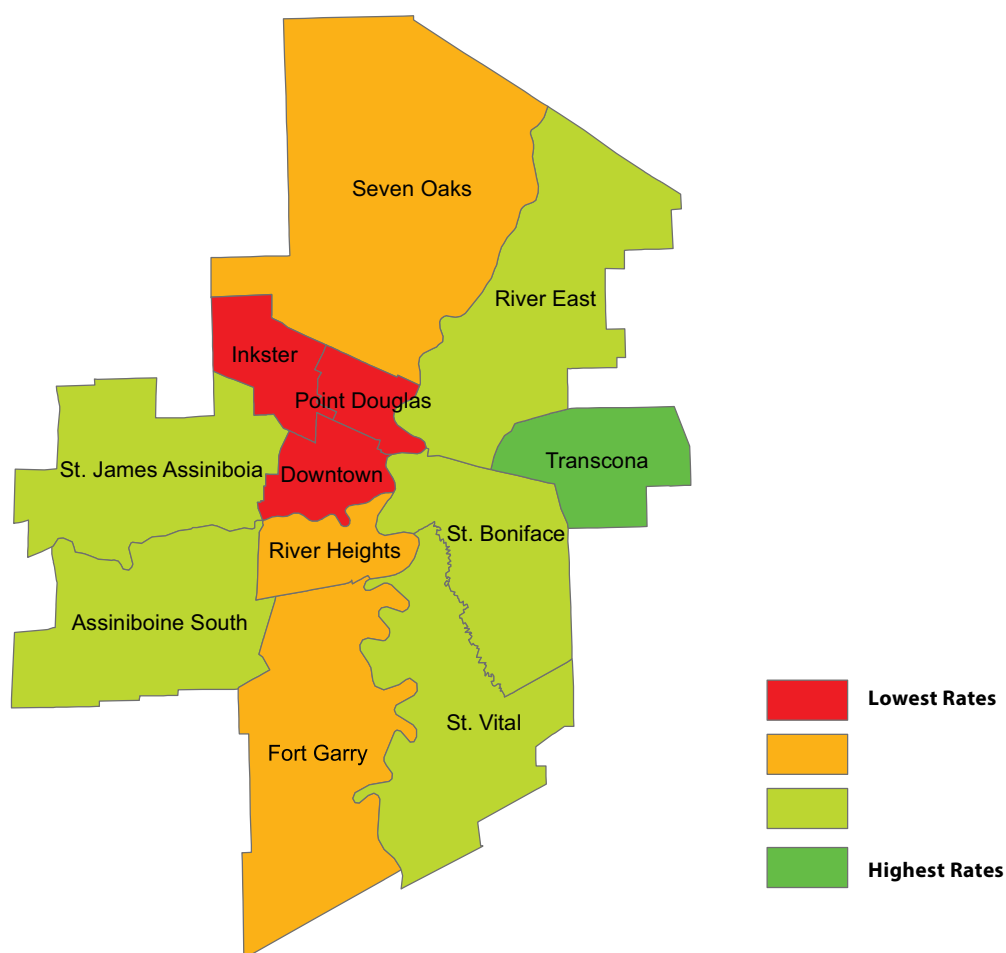
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates change over time was statistically significant for that area

's' indicates data suppressed due to small numbers

Immunization Rates for Children Aged 17 Years by Winnipeg Community Area

Sex-adjusted percent of 17-year old children who have completed immunization schedules, 2007/08



Source: Manitoba Center for Health Policy, 2011

Table A4.2.1.c1

Health Inequality in Child Immunizations at Age 17, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/03 % children age 17 with complete coverage	2007/08 % children age 17 with complete coverage
Child Immunization at Age 17 by <i>Community Area (CA)</i> <i>median household income</i>		
Highest income CA (Assiniboine South)	61.3%	60.7%
Lowest income CA (Downtown)	23.5%	43.5%
Absolute difference (Highest income CA – Lowest income CA)	37.8%	17.2%
Ratio (Highest income CA / Lowest income CA)	2.61	1.40
Child Immunization at Age 17 by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	59.3%	63.2%
U4	57.5%	62.7%
U3	52.5%	56.8%
U2	43.4%	49.7%
Lowest Urban Income Quintile (U1)	31.2%	38.8%
Absolute difference (U5-U1)	28.1%	24.4%
Ratio (U5/U1)	1.90	1.63

Source: Manitoba Centre for Health Policy, 2011



Indicator: Adult Influenza Immunization

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents aged 65 and older who received an influenza immunization (“flu shot”) in a given year. Flu shots were defined by physician tariff codes 8791, 8792, 8793, or 8799 in the Manitoba Immunization Monitoring System (MIMS) data.

NUMERATOR: All of the Region’s residents aged 65 and older who received influenza immunization.

DENOMINATOR: All of the Region’s residents aged 65 and older.

CALCULATION: Percentages were age– and sex–adjusted to the Manitoba population aged 65 and older in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The percent of Manitoba residents aged 65 and older receiving a flu shot increased from 56% in 2000/01 to 68% in 2005/06 and then went on to decrease to 59% in 2011/12.
- Decreases in percentages were seen in all communities in Winnipeg from 2006/07 to 2011/12 except Churchill.
- The percent of influenza immunization ranged from 48% in Point Douglas South neighborhood cluster (NC) to 63% in Fort Garry North, Assiniboine South, and St James-Assiniboia East NCs in 2011/12. Fifty-five percent (55%) of elderly residents of Churchill received influenza vaccination in 2011/12.
- Adult influenza vaccine coverage was not closely associated with household income.

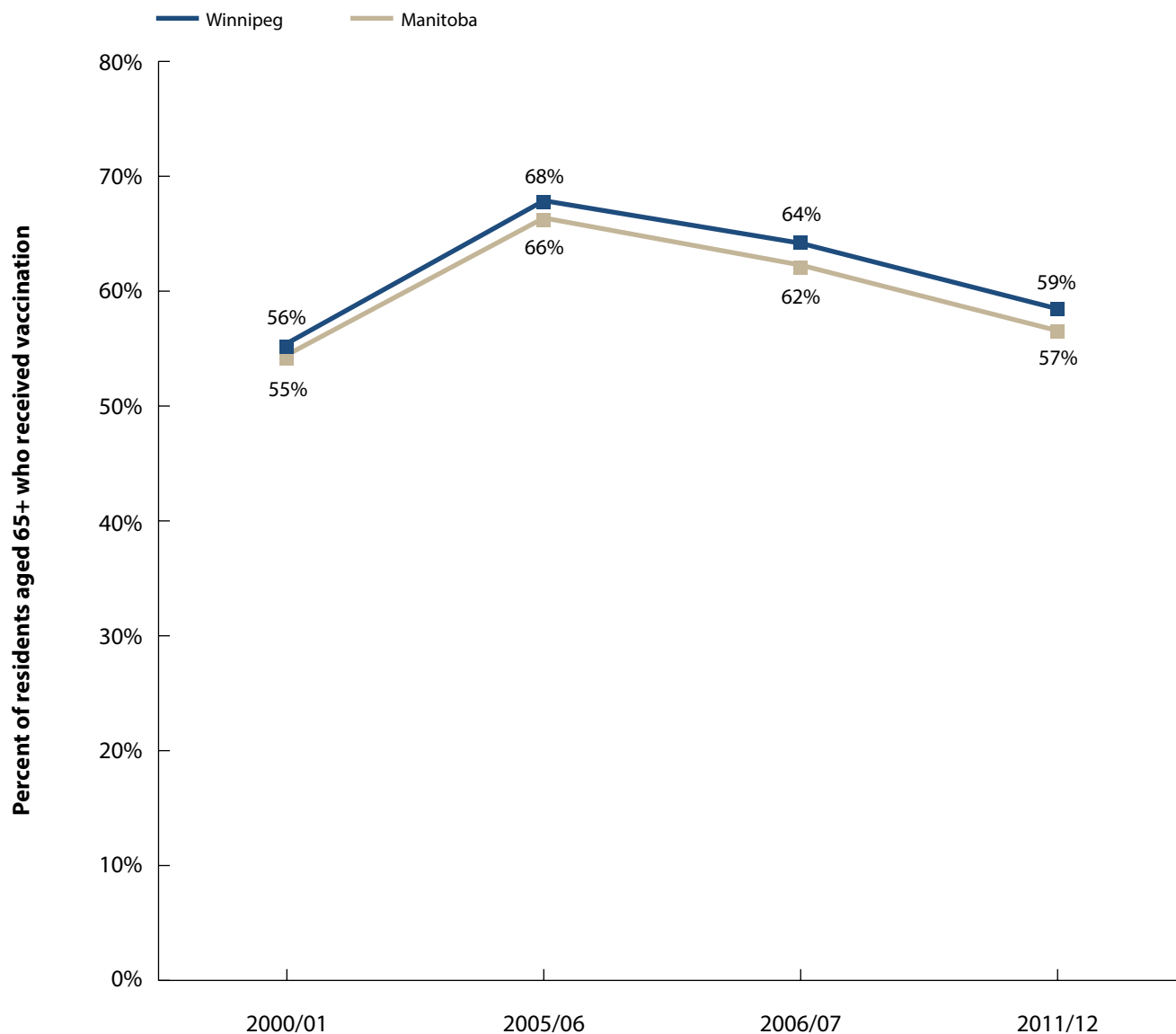
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Seniors are at high risk of seasonal influenza. A single dose of influenza vaccine is recommended for all individuals aged 65 years and older to protect against influenza-related hospitalizations and deaths.
- Nearly one-half of seniors do not get seasonal influenza vaccine, indicating that more public health education and promotion efforts are needed.

Figure A4.2.1.d1

Trends in Adult Influenza Immunization Rates in Winnipeg & Manitoba

Age- & sex-adjusted rate of adults aged 65+ who received influenza immunization shots, 2000/01–2011/12

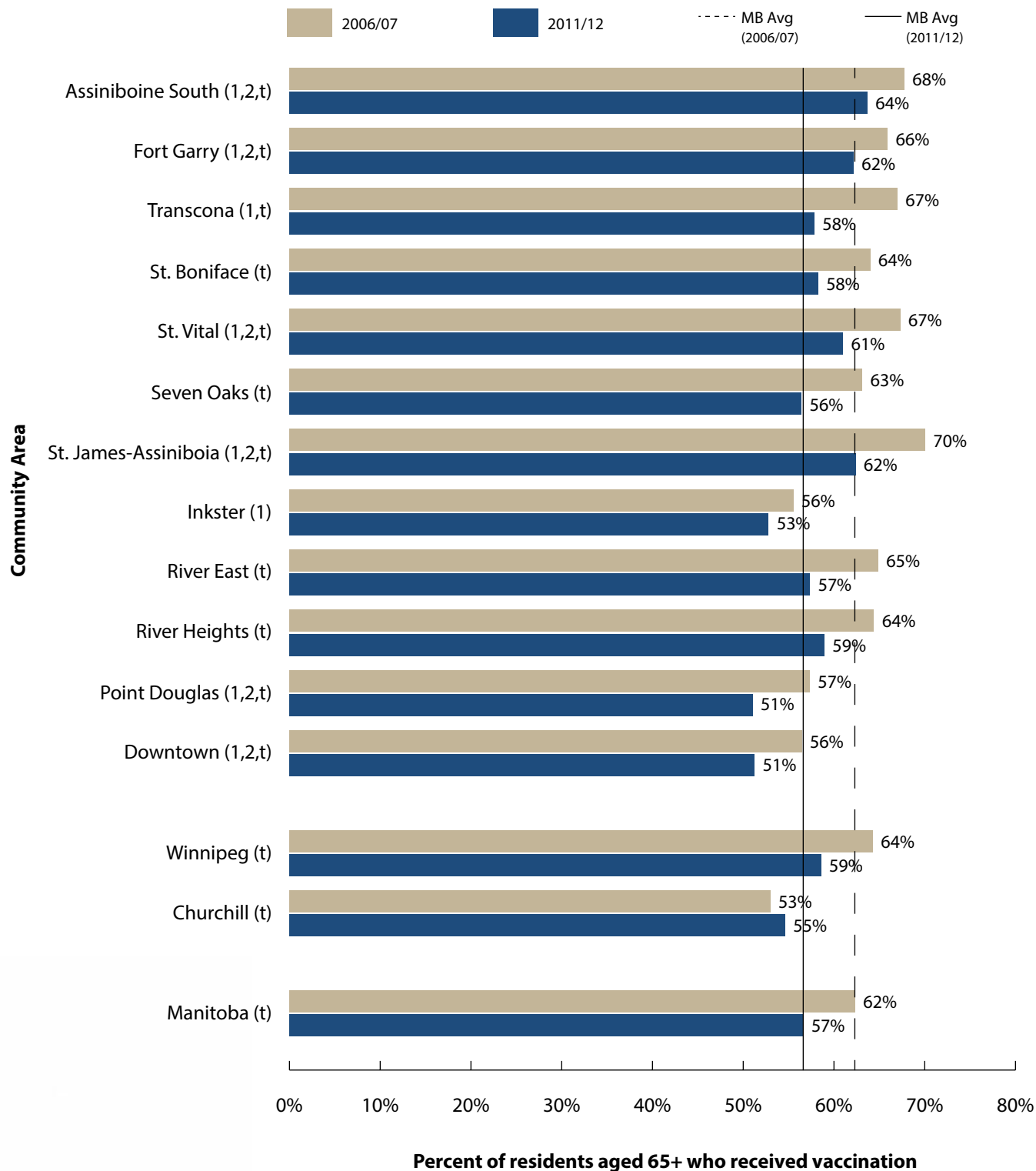


Sources: Manitoba Center for Health Policy, 2009 & 2013

Figure A4.2.1.d2

Adult Influenza Immunization Rates by Winnipeg Community Area

Age- & sex-adjusted rate of adults aged 65+ who received influenza immunization shots, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

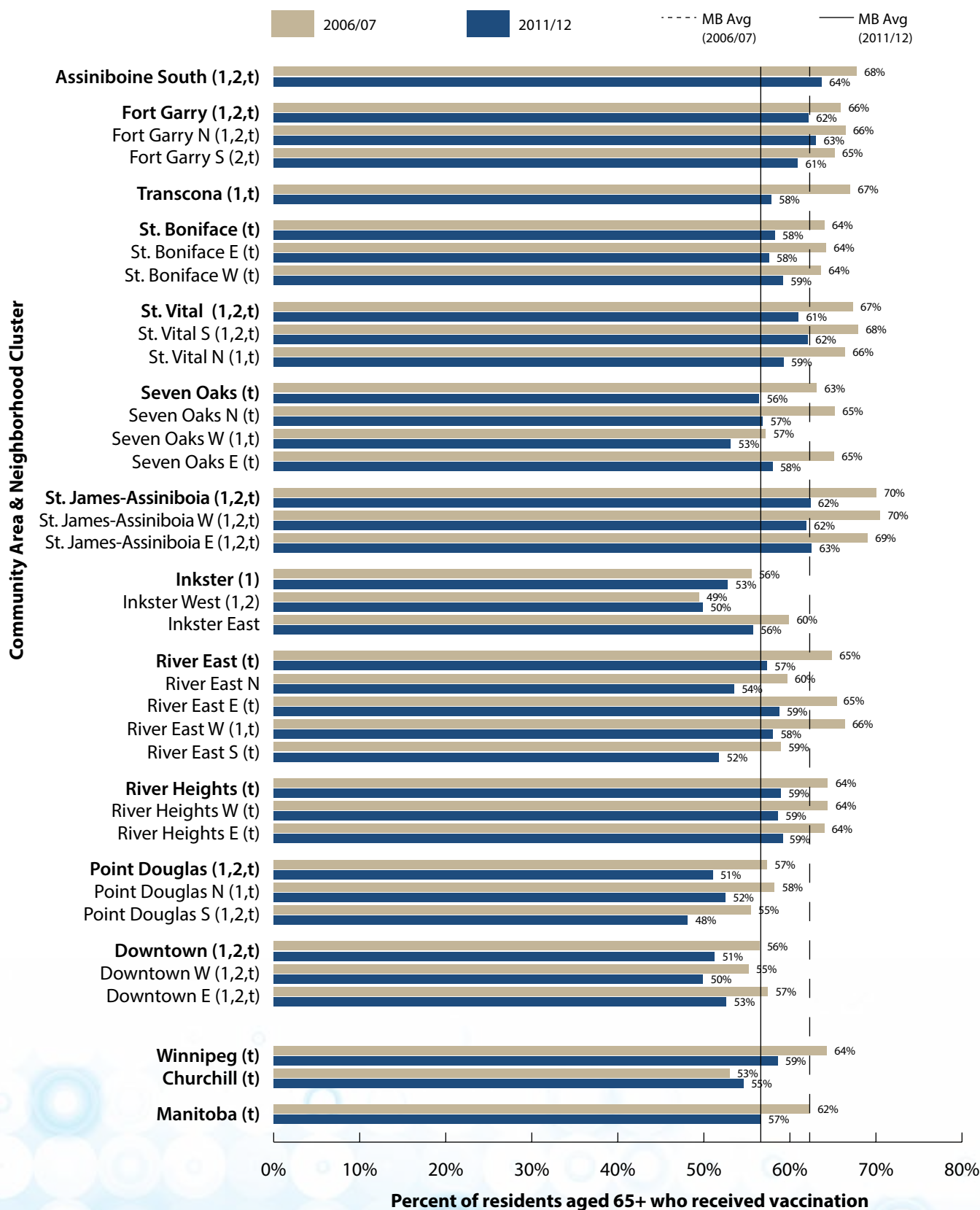
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates change over time was statistically significant for that area

Figure A4.2.1.d3

Adult Influenza Immunization Rates by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted rate of adults aged 65+ who received influenza immunization shots, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

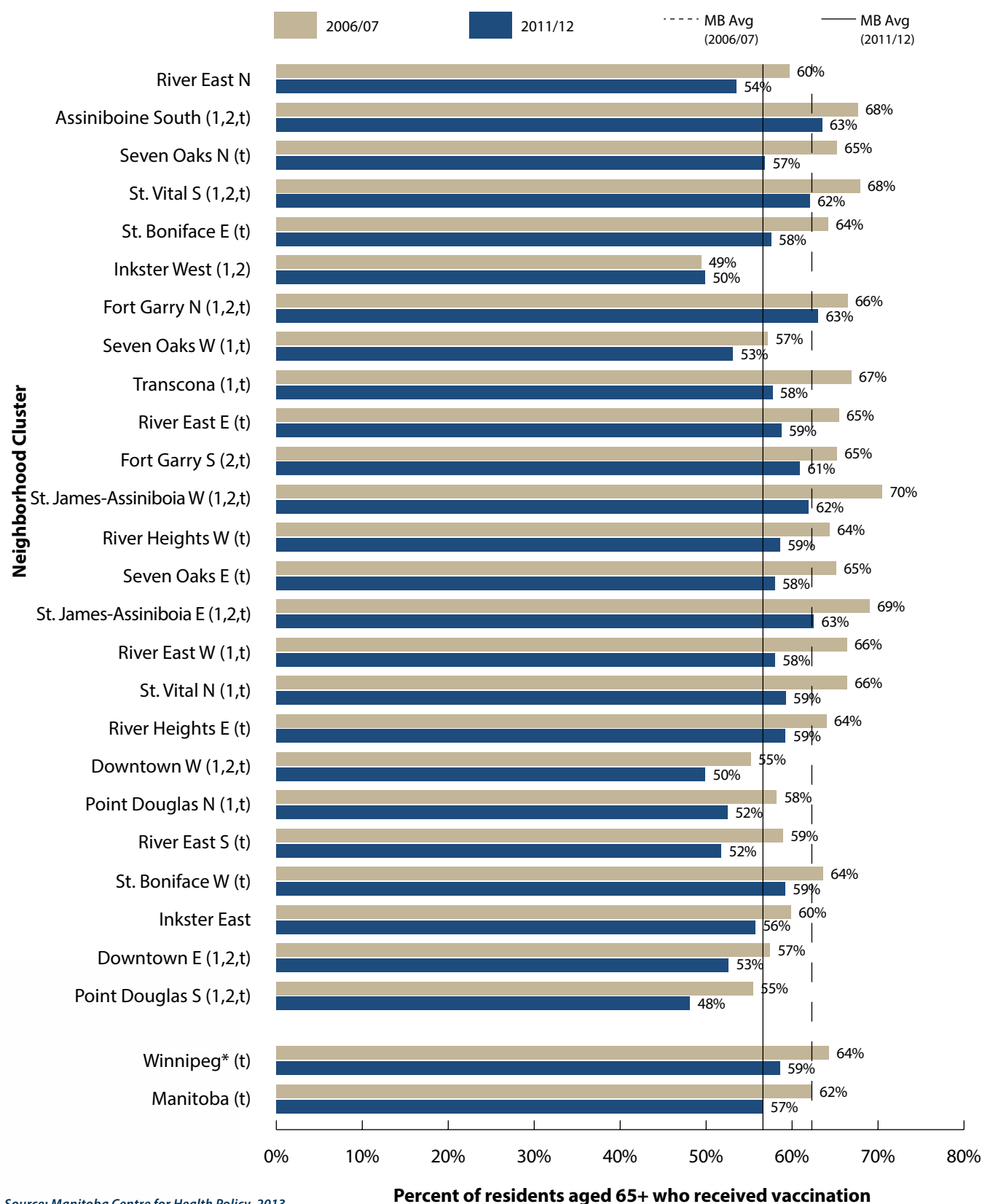
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates change over time was statistically significant for that area

Figure A4.2.1.d4

Adult Influenza Immunization Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted rate of adults aged 65+ who received influenza immunization shots, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

*Excluding Churchill

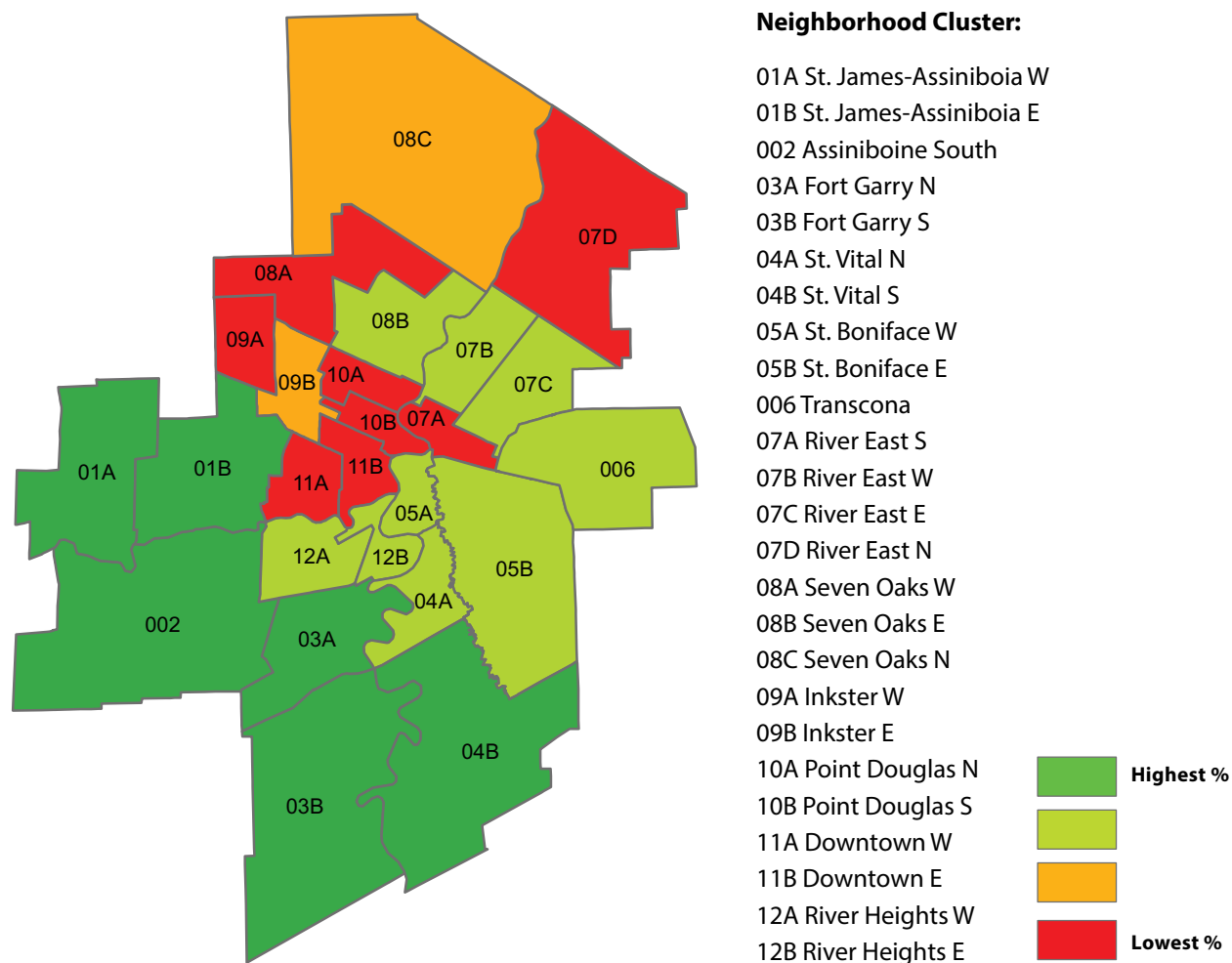
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates change over time was statistically significant for that area

Adult Influenza Immunization Rates by Winnipeg Neighborhood Cluster

Age- & sex-adjusted rate of adults aged 65+ who received influenza immunization shots, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A4.2.1.d1

Health Inequality in Adult Influenza Immunization, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 % adults aged 65+ who received an influenza vaccine	2011/12 % adults aged 65+ who received an influenza vaccine
Adult Influenza Immunization by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	60%	54%
Lowest income NC (Point Douglas S)	55%	48%
Absolute difference (Highest income NC – Lowest income NC)	5%	6%
Ratio (Highest income NC / Lowest income NC)	1.09	1.13
Adult Influenza Immunization by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile U5	65%	60%
U4	65%	59%
U3	64%	57%
U2	62%	56%
Lowest Urban Income Quintile U1	63%	56%
Absolute difference (U1-U5)	2%	4%
Ratio (U1/U5)	1.03	1.07

Source: Manitoba Centre for Health Policy, 2013

Indicator: Breast Cancer Screening (Mammography)

DEFINITION: The percentage of women aged 50-69 years who had a screening mammogram in the past two years (2010/11 and 2011/12). A screening mammogram is defined as at least one physician claim with a tariff code of 7104 in the Winnipeg Regional Health Authority (the Region).

NUMERATOR: Number of the Region's female residents aged 50-69 years who had a screening mammogram during 2010/11 and 2011/12.

DENOMINATOR: All of the Region's female residents aged 50 to 69 as of June 1, 2011.

CALCULATION: (Female residents aged 50-69 who had a screening mammogram during 2010/11 and 2011/12 /All female residents aged 50 to 69 as of June 1, 2011) ×100.

DATA SOURCE: Manitoba Health, 2012

KEY FINDINGS:

- During 2010/11-2011/12, 51.4% of the Region's women aged 50-69 years and 52% of Churchill women aged 50-69 years had a screening mammography.
- Two central community areas (Downtown and Point Douglas CAs) had lower than average participation percents. During 2010/11 and 2011/12, only 30.3% of Point Douglas South and 33.4% of Downtown East (both neighborhood clusters) women aged 50-69 years had a screening mammography in the past 2 years.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The actual participation rate may be underestimated because women who are currently not eligible for screening (i.e., women who have had breast cancer, women with breast symptoms and/or women with breast implants and/or with prophylactic bilateral mastectomies) are not removed from the denominator.
- The Canadian Task Force on Preventive Health Care recommends that average-risk women¹ aged 40-49 years do not have mammography screening, but women aged 50-69 years (with moderate quality evidence) or 60-74 years (with low quality evidence) have a mammography screening every 2 or 3 years.²
- Adequate participation in breast cancer screening is essential for reductions in mortality to occur in the targeted population. Based on principles of screening and extrapolation from randomized controlled trials, Canadian screening programs have established 70% as the target participation rate.³

¹ Average-risk women are those who do not have personal history of breast cancer, history of breast cancer in first-degree relatives, known mutations of the BRCA1/BRCA2 genes or previous exposure of the chest wall to radiation.

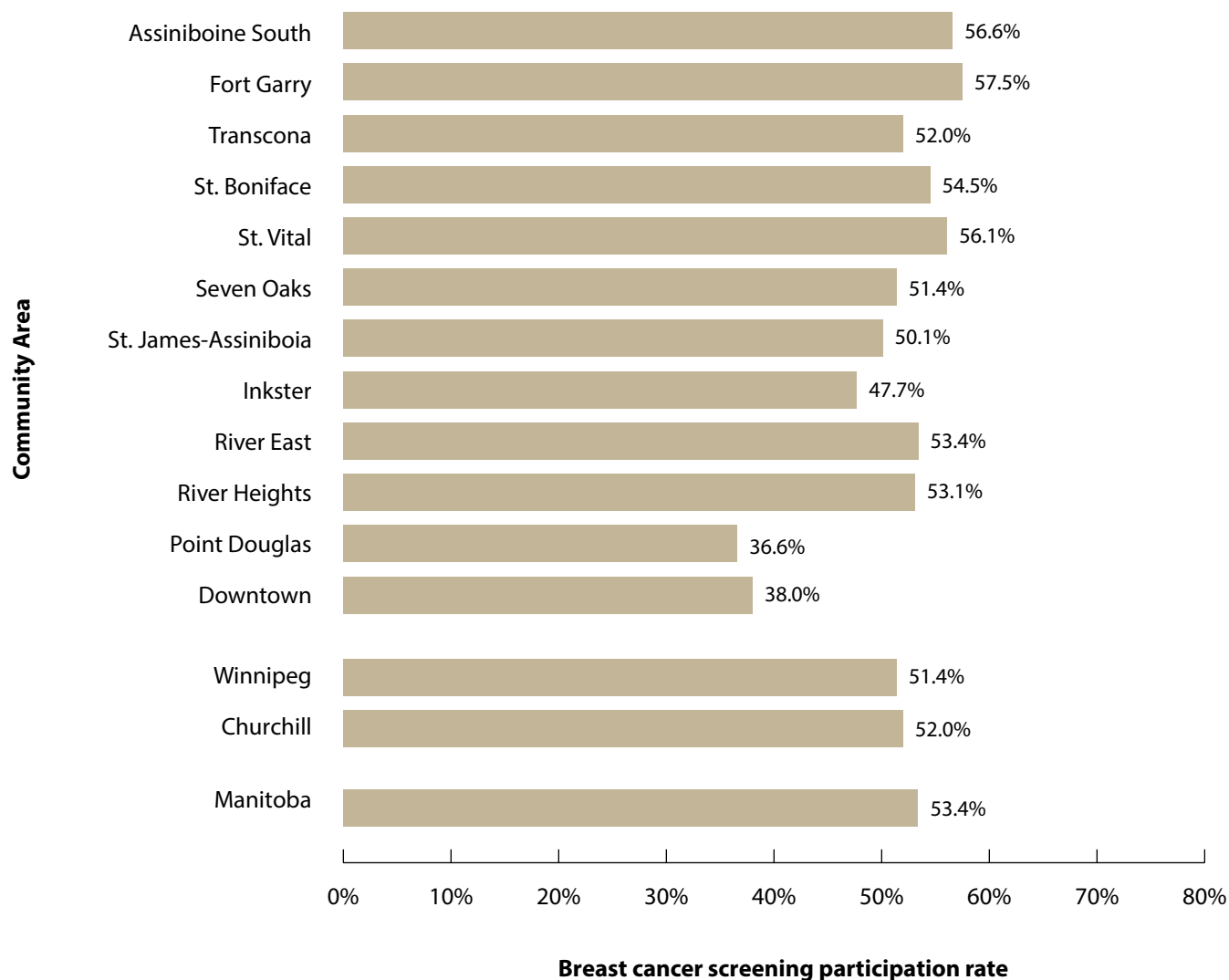
² The Canadian Task Force on Preventive Health Care. Recommendations on screening for breast cancer in average-risk women aged 40–74 years. CMAJ, 2011, 183(17) 1991-2001.

³ Public Health Agency of Canada. 2012. Report from the Evaluation Indicators Working Group: Guidelines for Monitoring Breast Cancer Screening Program Performance (Third Edition).

Figure A4.2.2.a1

Breast Cancer Screening (Mammography) Participation Rates by Winnipeg Community Area

Females aged 50–69, April 2010 to March 2012

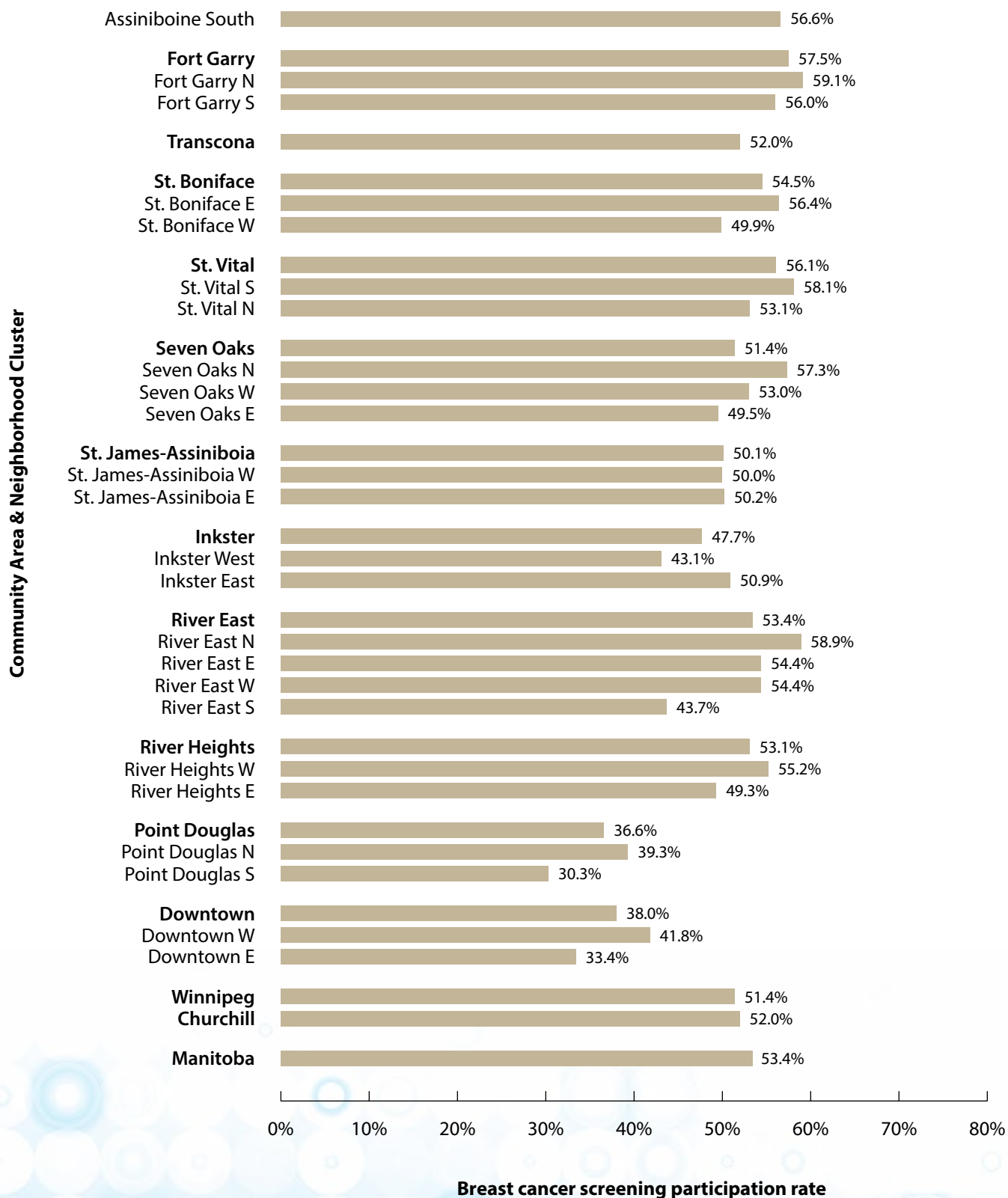


Source: Manitoba Health, 2012

Figure A4.2.2.a2

Breast Cancer Screening (Mammography) Participation Rates by Winnipeg Community Area & Neighborhood Cluster

Females aged 50–69, April 2010 to March 2012

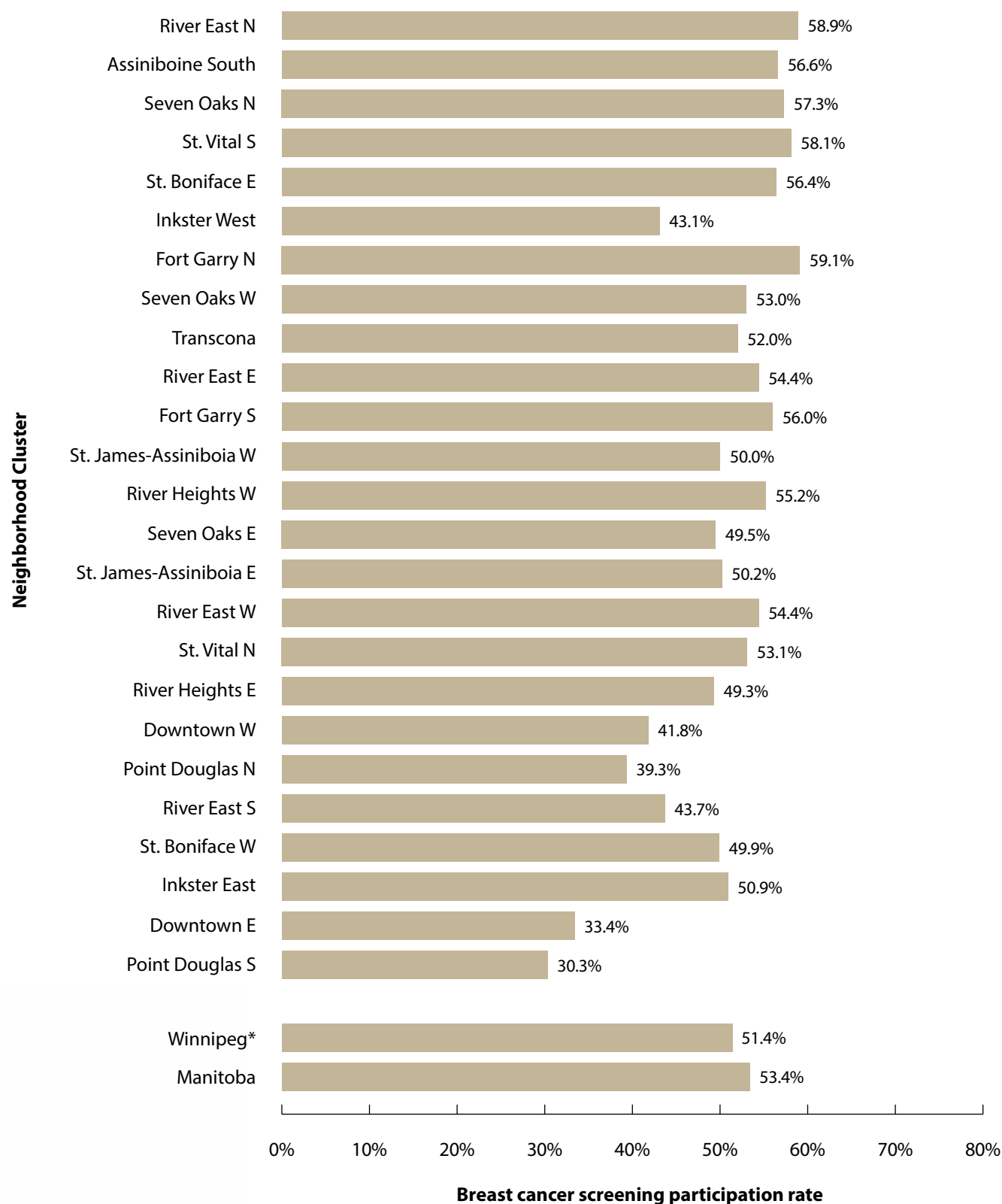


Source: Manitoba Health, 2012

Figure A4.2.2.a3

Breast Cancer Screening (Mammography) Participation Rates by Winnipeg Neighborhood Cluster

Females aged 50–69, April 2010 to March 2012

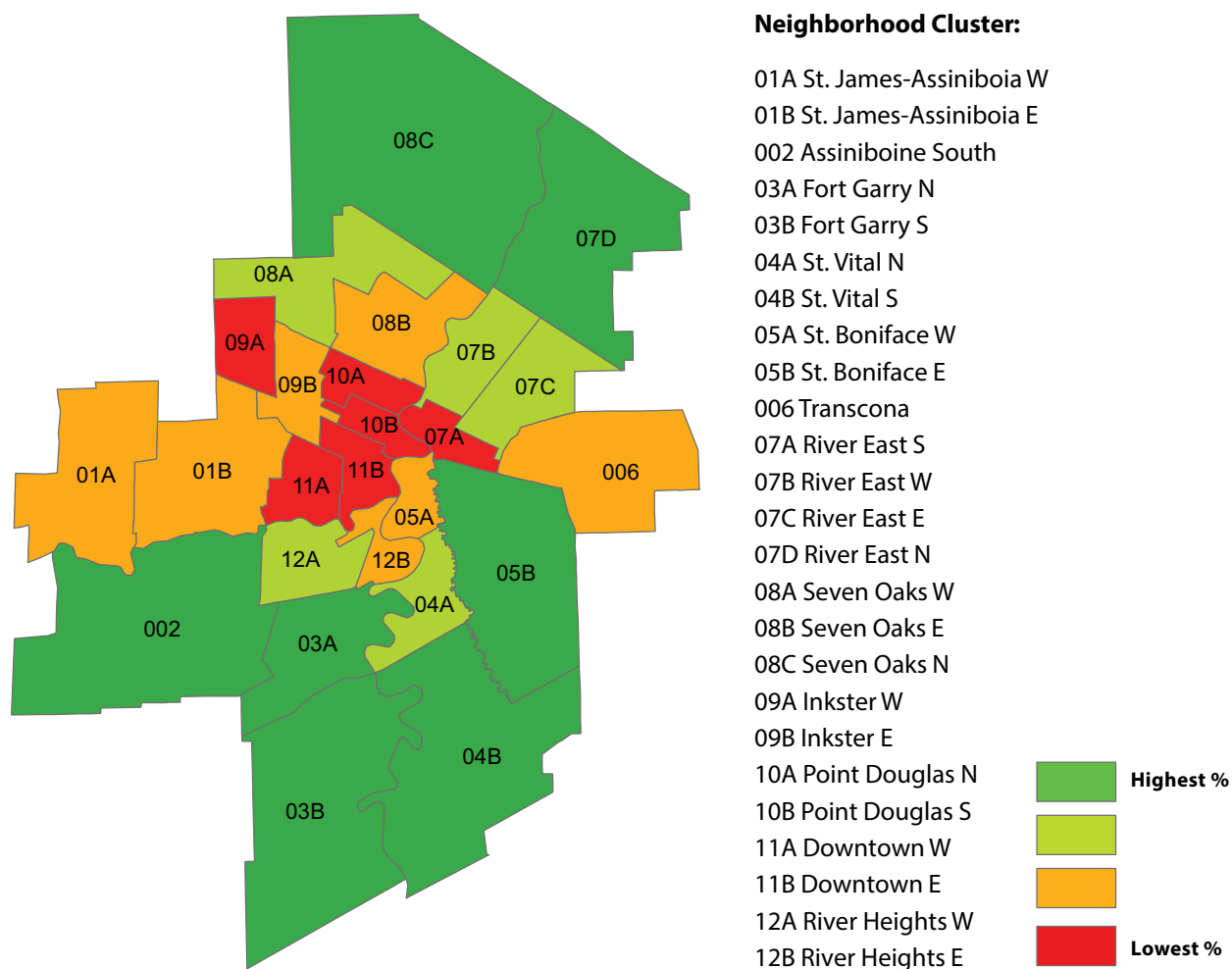


Source: Manitoba Health, 2012

*Excluding Churchill

Breast Cancer Screening (Mammography) Participation Rates by Winnipeg Neighborhood Cluster

Females aged 50–69, April 2010 to March 2012



Source: Manitoba Health, 2012



Indicator: Cervical Cancer Screening (Pap Test)

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) female residents aged 15 years and older who received at least one Papanicolaou (Pap) test in a three-year period between 2009/10 to 2011/12. A Pap test is defined as a physician visit with a tariff code of 8470, 8495, 8496, 8498 or 9795, including a visit for a physical or regional exam with a Pap test, or a visit for Pap testing only.

NUMERATOR: Number of the Region's female residents aged 15 years and older who had a Pap test between 2009/10 to 2011/12.

DENOMINATOR: All of the Region's female residents aged 15 years and older on June 1, 2010.

CALCULATION: (Number of female residents aged 15 years and older who had a Pap test between 2009/10 to 2011/12 divided by all of the Region's female residents aged 15 years and older on June 1, 2010)×100. The proportion was age-adjusted to the Manitoba female population aged 15 years and older.

DATA SOURCE: Manitoba Health, 2012

KEY FINDINGS:

- During 2009/10-2011/12, 53.4% of the Region's women aged 15 and older had a cervical cancer screening.
- The percentage of screening ranged from 41.8% in neighborhood clusters (NC) Point Douglas South to 62.1% in St Boniface East.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

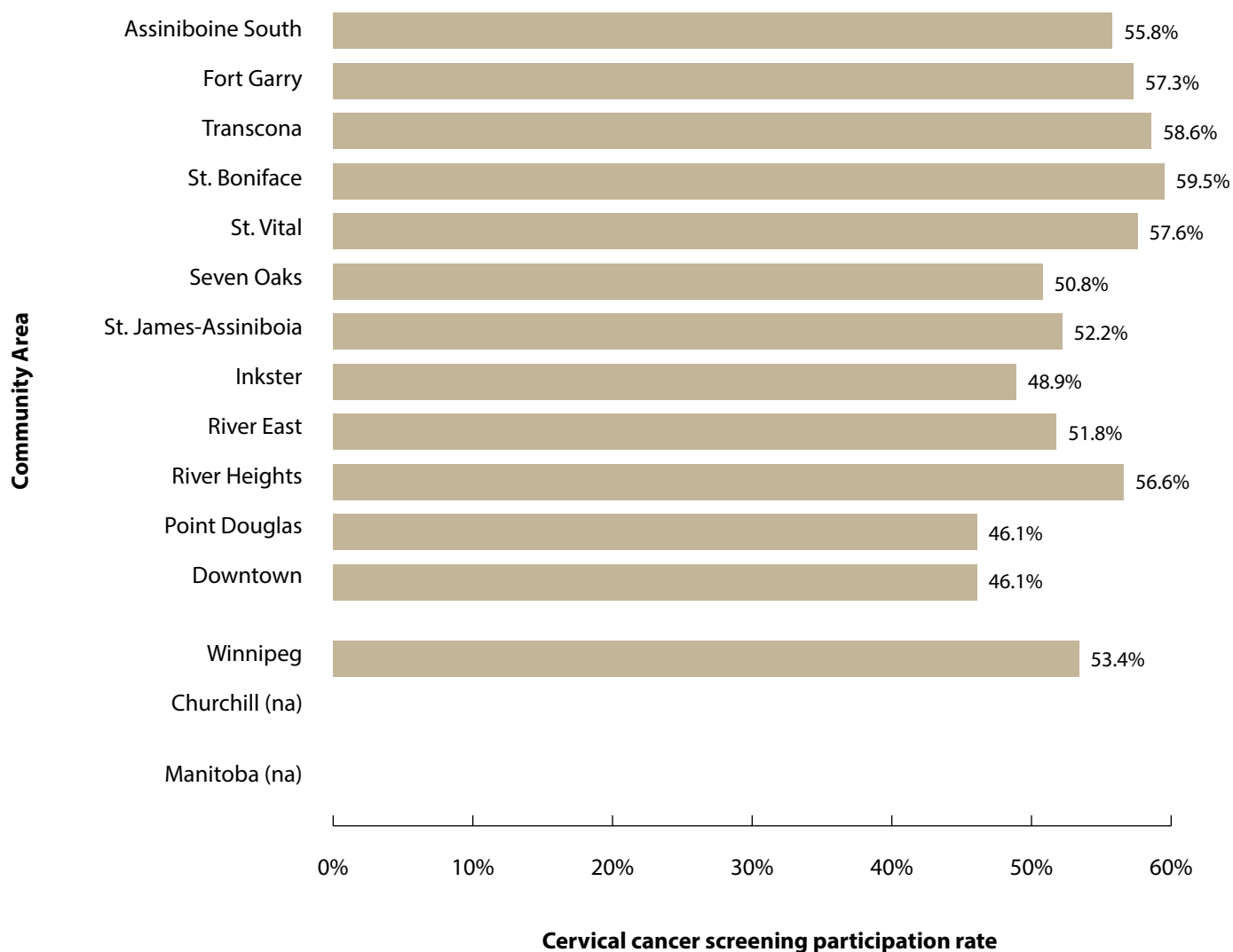
- The actual participation rate may be underestimated because women who are currently not eligible for the screening (i.e., those who have been diagnosed invasive cervical cancer or have had complete hysterectomy) are not removed from the denominator.
- Pap tests (every 3 years) are strongly recommended to women aged 30-69 years by the Canadian Task Force on Preventive Health Care.¹

¹ The Canadian Task Force on Preventive Health Care Recommendations on screening for cervical cancer. *CMAJ*, 2013, 185(1), 35-45.

Figure A4.2.2.b1

Cervical Cancer Screening (Pap Test) Participation Rates by Winnipeg Community Area

Females aged 15 and over, April 2009 to March 2012



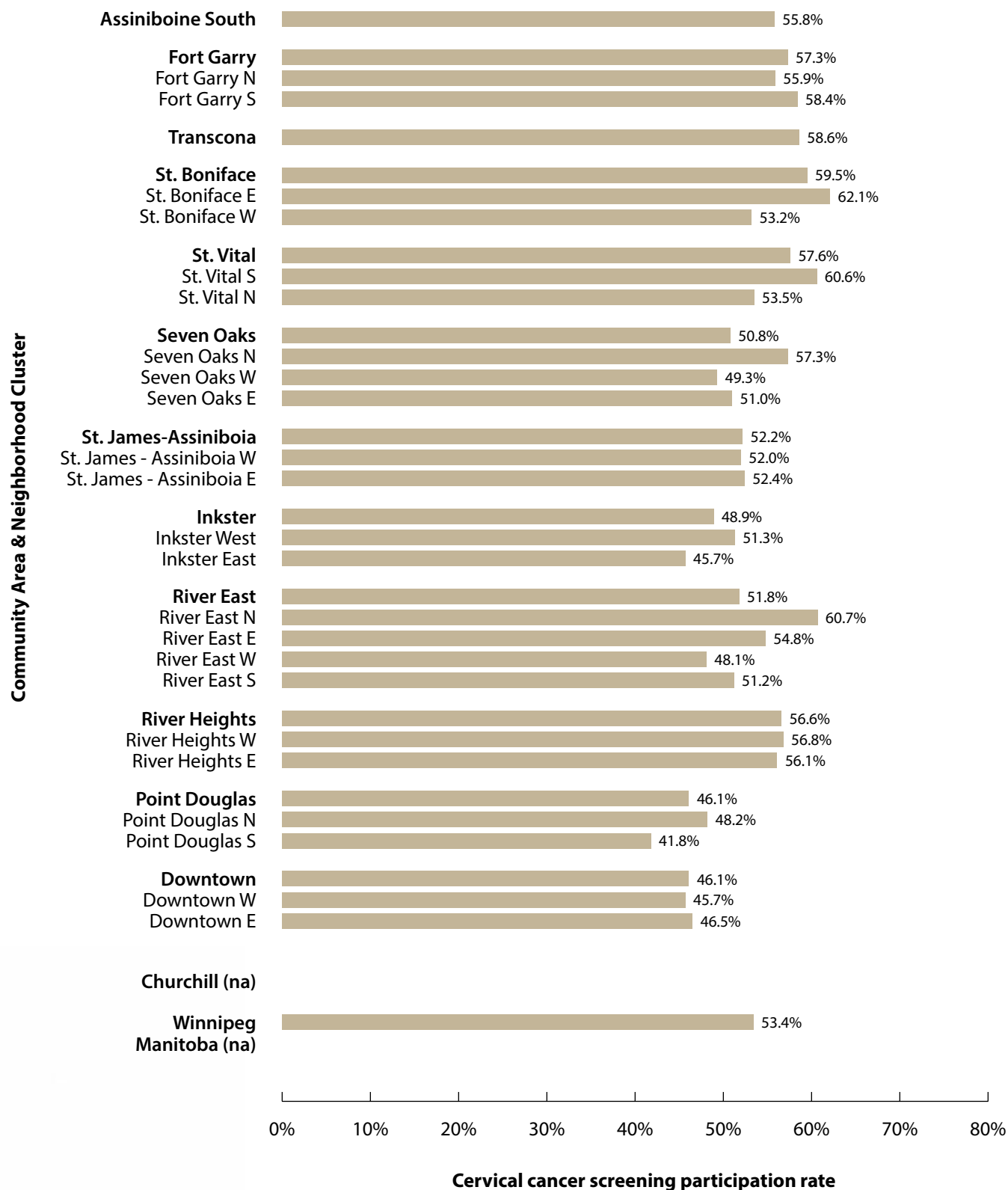
Source: Manitoba Health, 2012

(na) - data unavailable

Figure A4.2.2.b2

Cervical Cancer Screening (Pap Test) Participation Rates by Winnipeg Community Area & Neighborhood Cluster

Females aged 15 and over, April 2009 to March 2012



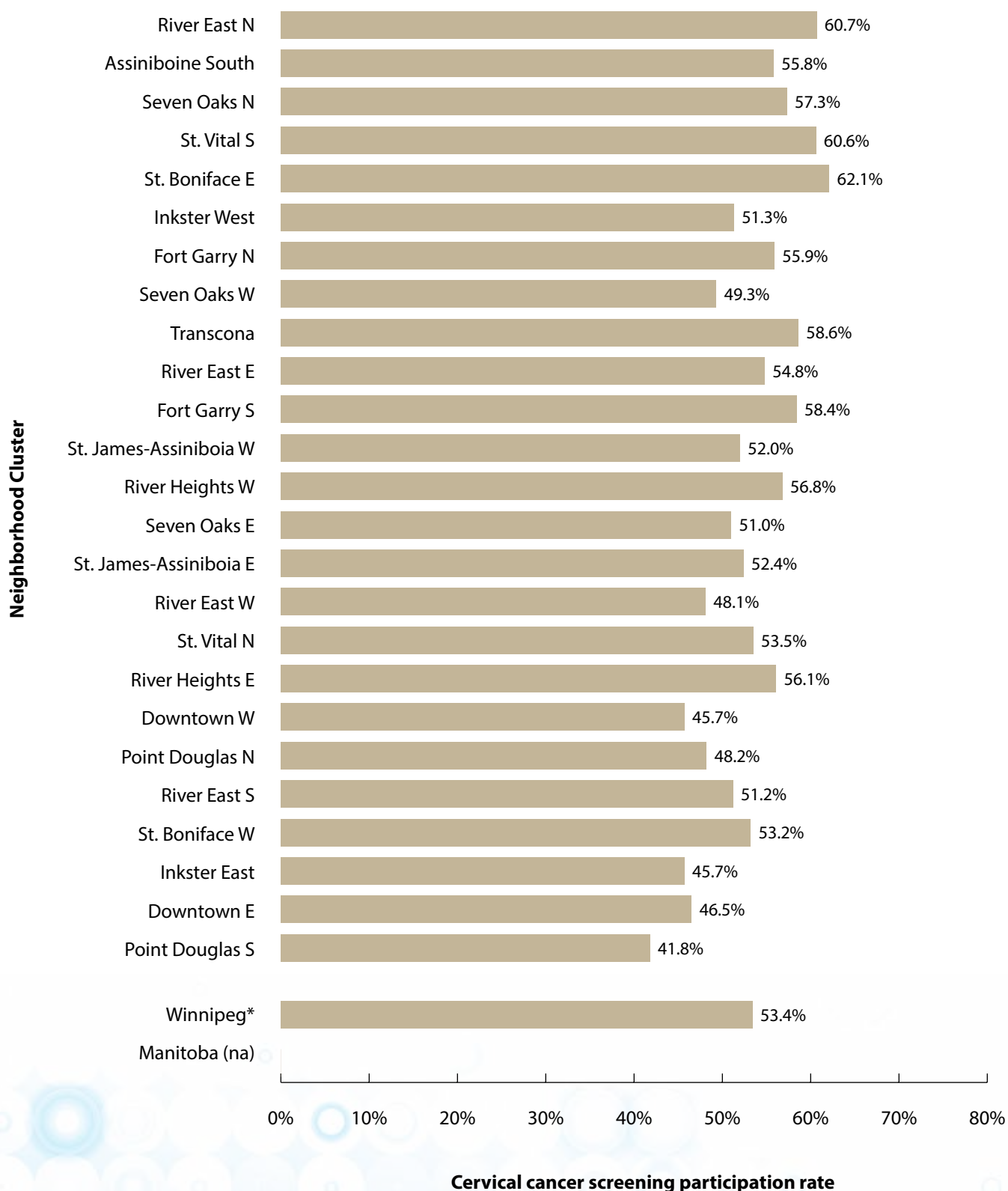
Source: Manitoba Health, 2012

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Figure A4.2.2.b3

Cervical Cancer Screening (Pap Test) Participation Rates by Winnipeg Neighborhood Cluster

Females aged 15 and over, April 2009 to March 2012



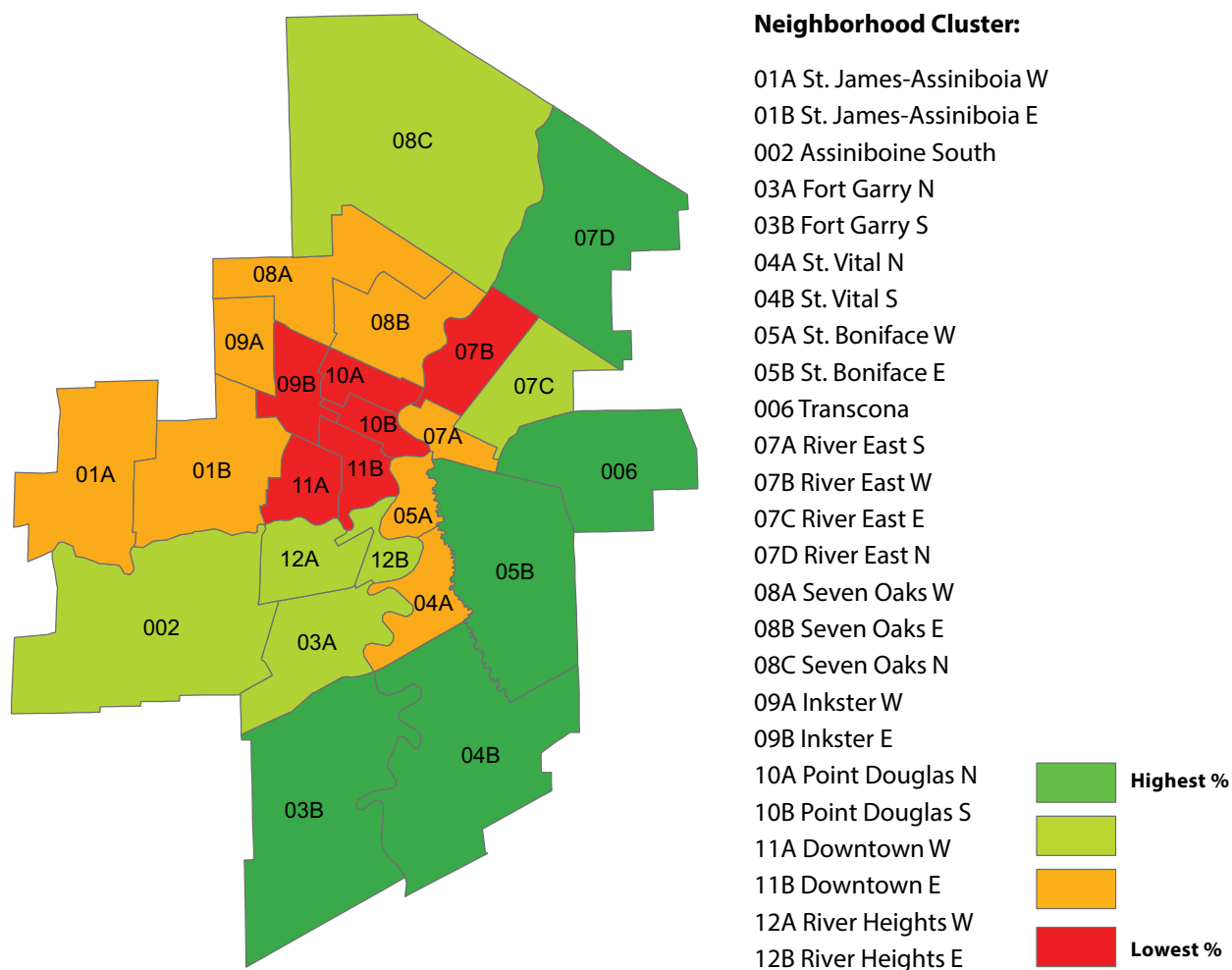
Source: Manitoba Health, 2012

*Excluding Churchill

(na) - data unavailable

Cervical Cancer Screening (Pap Test) Participation Rates by Winnipeg Neighborhood Cluster

Females aged 15 and over, April 2009 to March 2012



Source: Manitoba Health, 2012



Indicator: Inadequate Prenatal Care

DEFINITION: The percentage of pregnant women with inadequate prenatal care according to the Revised-Graduated Prenatal Care Utilization Index (R-GINDEX). The analysis was limited to hospital births as prenatal care was not well recorded on the midwifery data forms. Cases with missing prenatal care or R-GINDEX values were also excluded. Maternal delivery records that could not be linked to a newborn birth record, those with a recorded gestation period out of range, those with a recorded birth weight out of range, and those where the maternal PHIN was not found on the Manitoba Health Registry or covered by Manitoba Health Registry during pregnancy were excluded.

NUMERATOR: Number of women with inadequate prenatal care as per *R-GINDEX*.

DENOMINATOR: Number of women giving birth.

CALCULATION: Crude proportion is calculated.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2012

KEY FINDINGS:

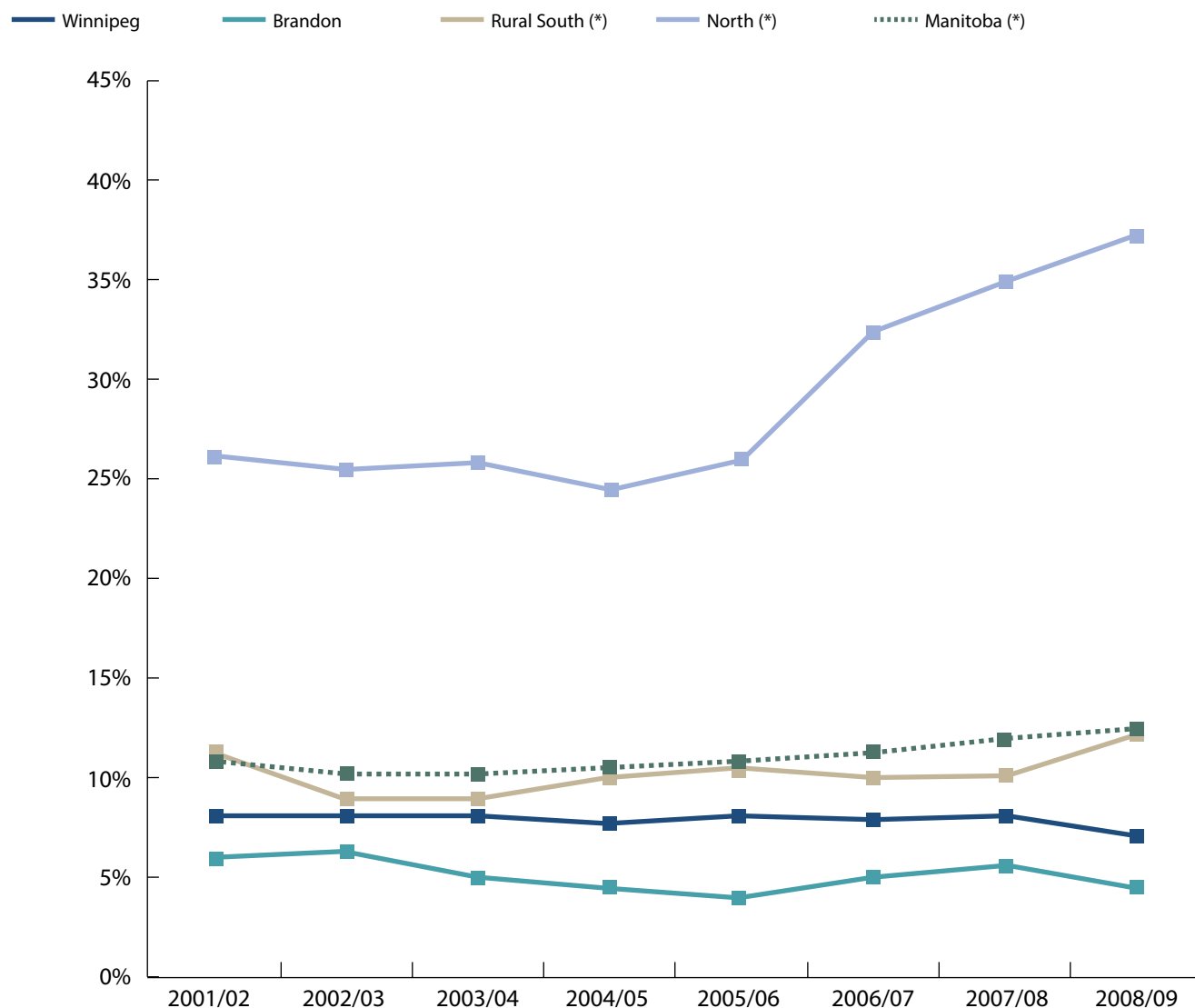
- In 2007/08-2008/09, 7.7% of Winnipeg pregnant women had inadequate prenatal care. The proportion of women with inadequate prenatal care has been relatively stable in the Winnipeg Regional Health Authority (the Region).
- Point Douglas community area (CA) had the highest proportion of women having inadequate prenatal care (19.1%), followed by Downtown CA (14.8%).

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Prenatal care is important preventive care to achieve a healthy pregnancy and birth and which positively impacts child health in the early years of life.
- Pregnant women are encouraged to initiate prenatal care in the first trimester and to continue the care throughout pregnancy to term.
- More efforts are needed to improve prenatal care in central areas of the Region such as Point Douglas and Downtown CAs.

Figure A4.2.3.a1

Trends in Proportion of Women with Inadequate Prenatal Care in Manitoba by Region, 2001/02-2008/09



Source: Manitoba Centre for Health Policy, 2012

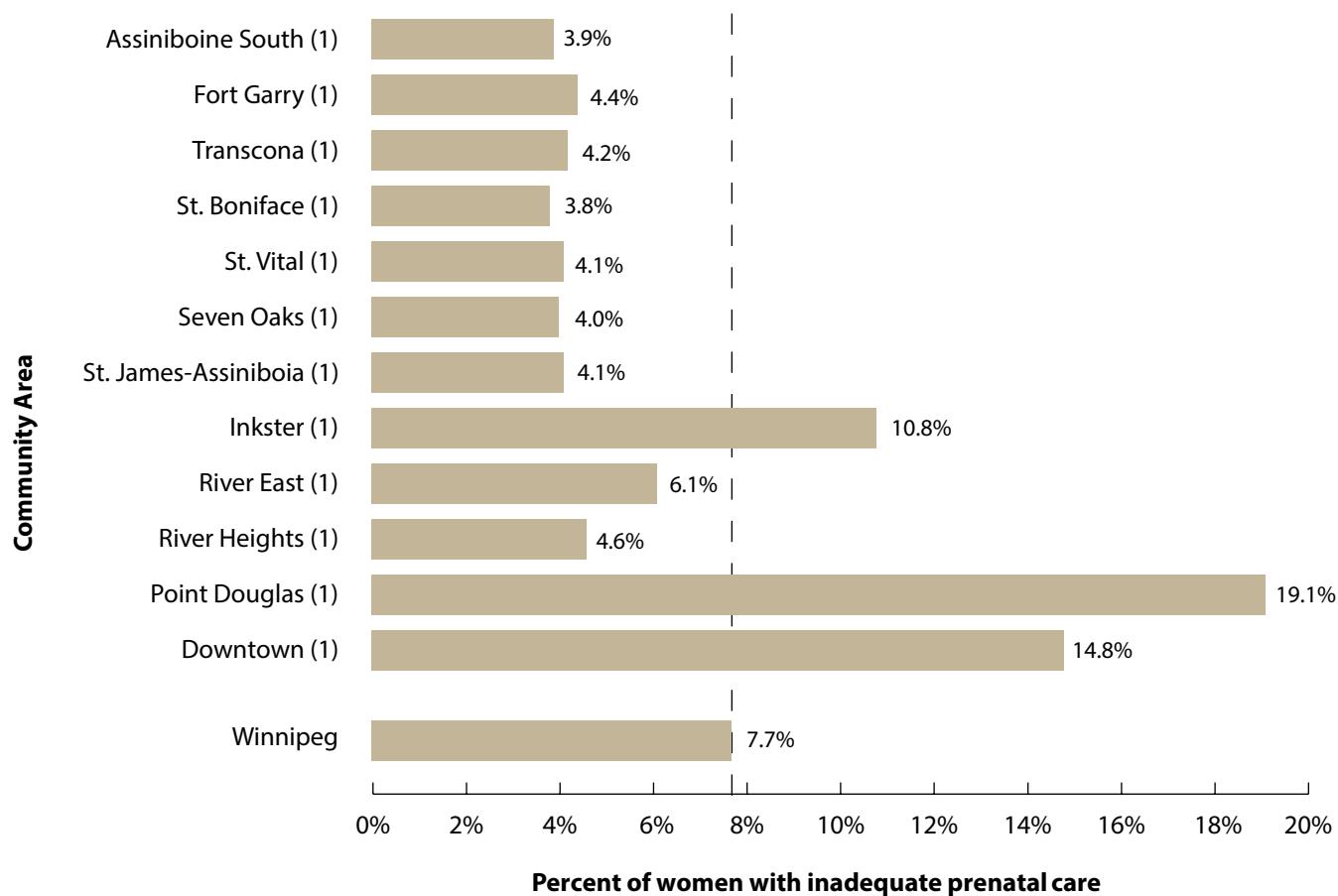
* indicates that the linear trend over time is significant at $p < 0.05$

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A4.2.3.a2

Proportion of Women with Inadequate Prenatal Care by Winnipeg Community Area

Crude proportion of women with inadequate prenatal care, 2007/08–2008/09



Source: Manitoba Centre for Health Policy, 2012

'1' indicates the area's rate was statistically different from the Winnipeg rate ($p < 0.01$)

HEALTHCARE ACCESS, UTILIZATION, AND QUALITY
ACROSS THE WINNIPEG HEALTH REGION

Winnipeg Regional Health Authority



Indicator: Looking for a Regular Medical Doctor

DEFINITION: The percent of respondents (residents) aged 12 years and older who answered 'No' to the question "Do you have a regular medical doctor?" and answered 'Yes' to the question "Why do you not have a regular medical doctor? – Have not tried to contact one" in the Canadian Community Health Survey (CCHS). As a result, respondents were grouped into two categories: not looking for a doctor or looking for a doctor.

NUMERATOR: Residents aged 12 years and older who do not have a regular medical doctor and are looking for one.

DENOMINATOR: Residents aged 12 years and older who do not have a regular medical doctor.

CALCULATION: Age- and sex-adjusted percent of a weighted sample of Winnipeg residents aged 12 and over.

DATA SOURCE: Canadian Community Health Survey (CCHS) (Combined CCHS cycles 2007-2008, 2009-2010, and 2011-2012)

KEY FINDINGS:

- During 2007-2012, 53% of Winnipeg Regional Health Authority (the Region) residents reported not having a regular medical doctor and were looking for one.
- The percentage varied across community areas and ranged from 41% in Fort Garry to 70% in Assiniboine South.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

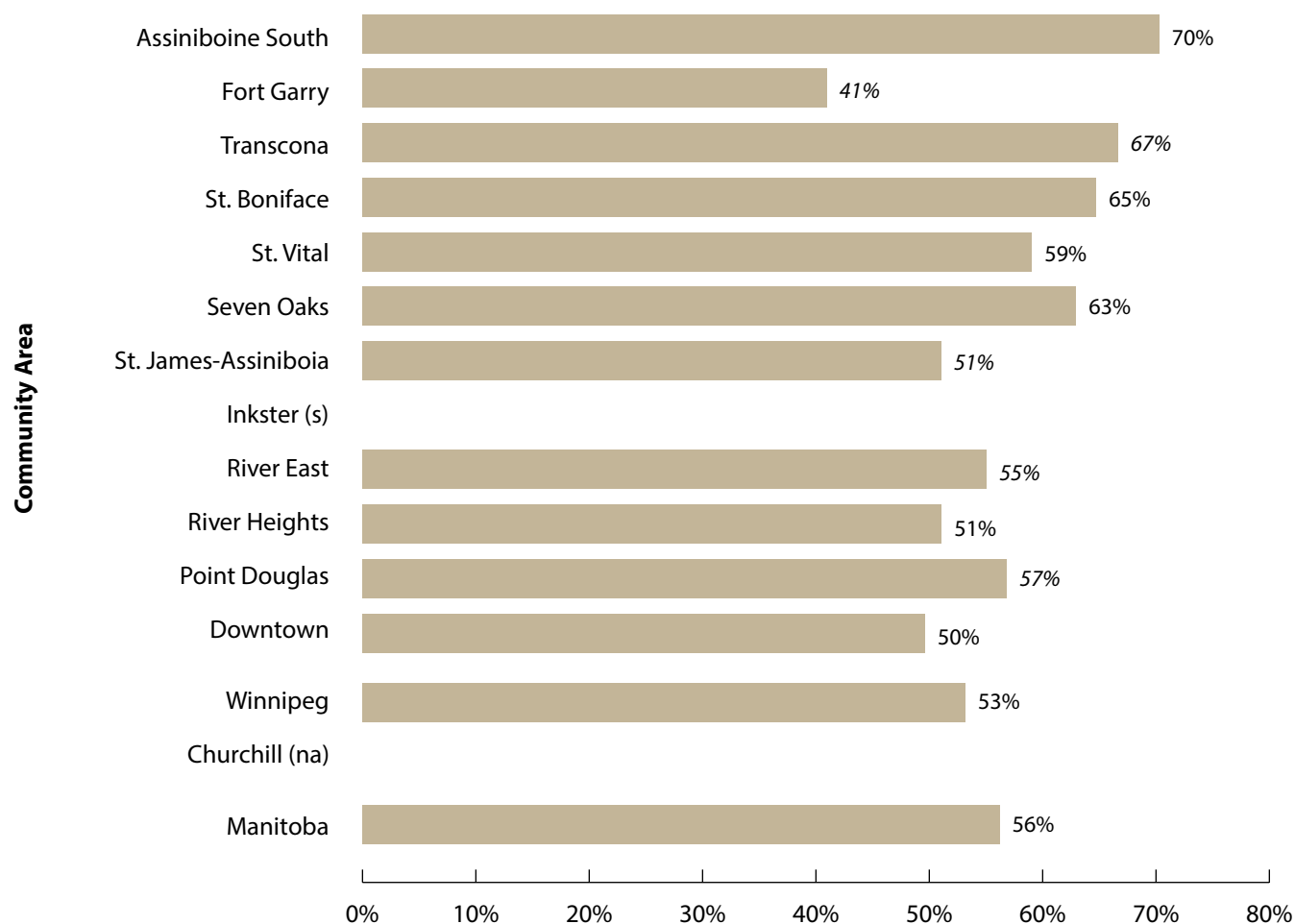
- In 2011/12, 14.6% of residents in the Region and 15.3% of Canadians aged 12 years and older reported that they did not have a regular medical doctor.¹
- The most common reason respondents gave for not having a regular doctor was that they had not looked for one (46.1%).¹

¹ Statistics Canada. Access to a regular medical doctor, 2011. <http://www.statcan.gc.ca/pub/82-625-x/2012001/article/11656-eng.htm> (Accessed October 2014)

Figure A5.1.1.a1

Looking for a Regular Medical Doctor by Winnipeg Community Area

Age- & sex-standardized percentages of residents aged 12+ in need of regular physician from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

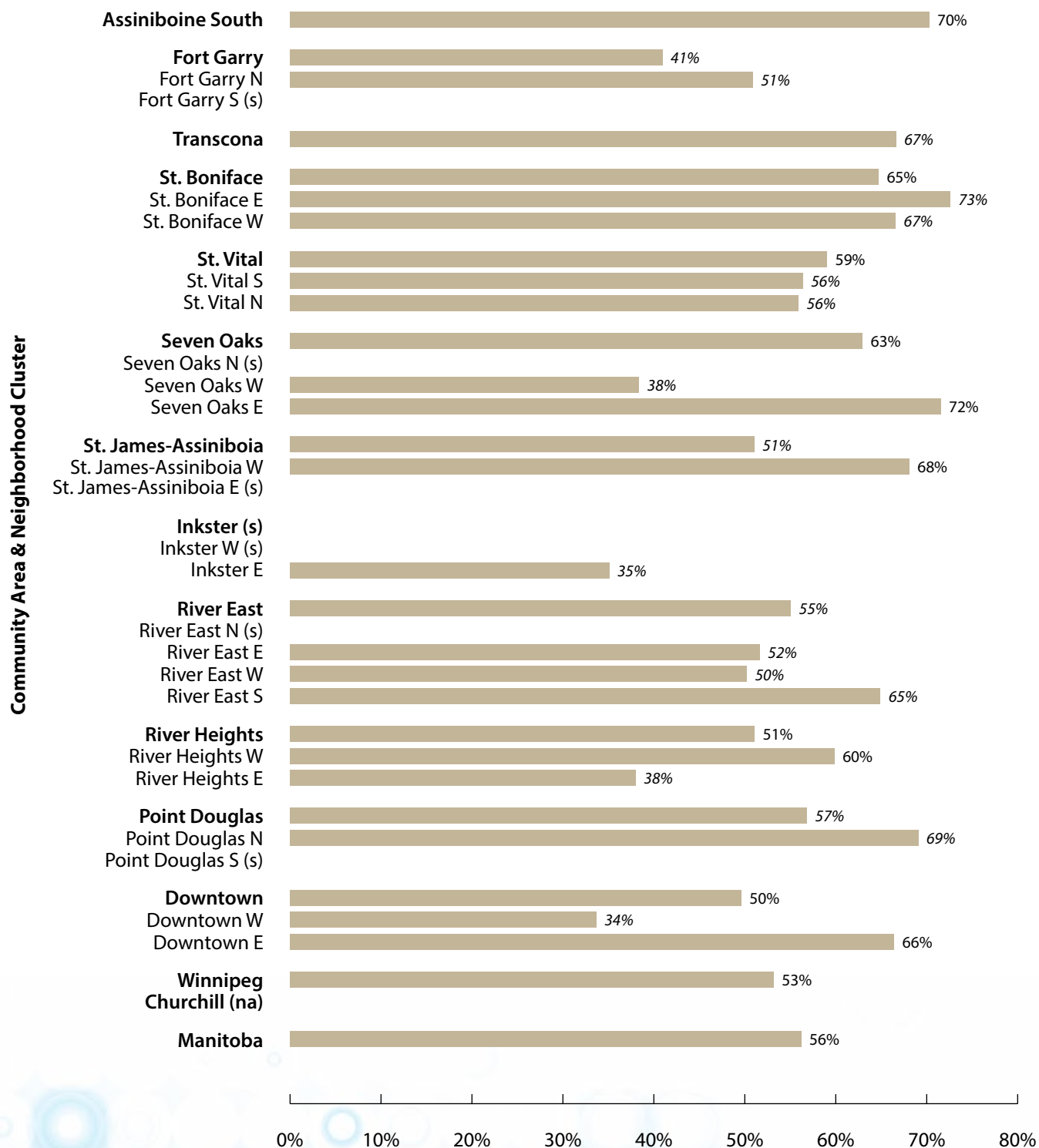
's' indicates that the results were suppressed to ensure confidentiality

(na) - data unavailable

Figure A5.1.1.a2

Looking for a Regular Medical Doctor by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-standardized percentages of residents aged 12+ in need of regular physician from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

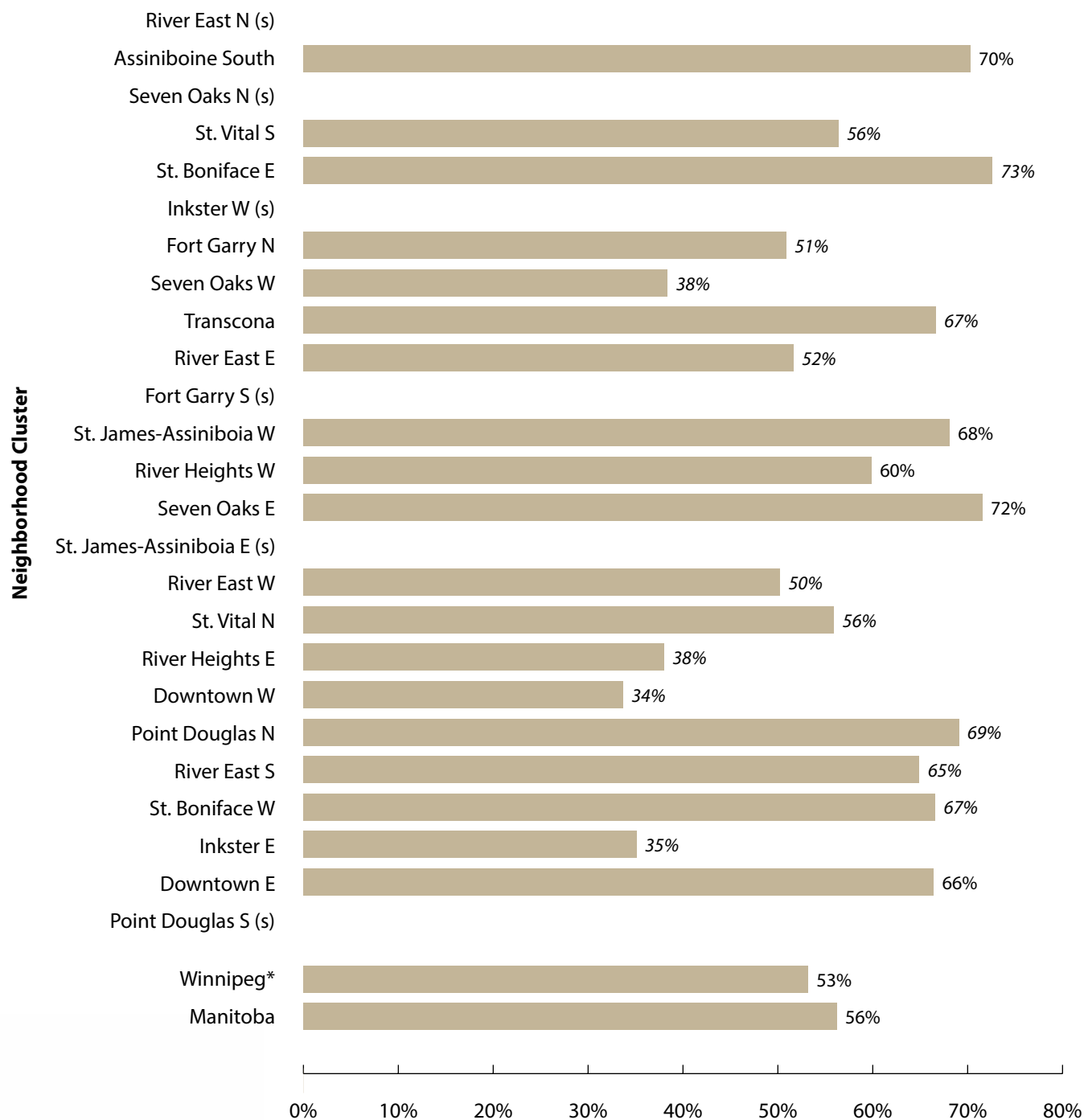
's' indicates that the results were suppressed to ensure confidentiality

(na) - data unavailable

Figure A5.1.1.a3

Looking for a Regular Medical Doctor by Winnipeg Neighborhood Cluster

Age- & sex-standardized percentages of residents aged 12+ in need of regular physician from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012

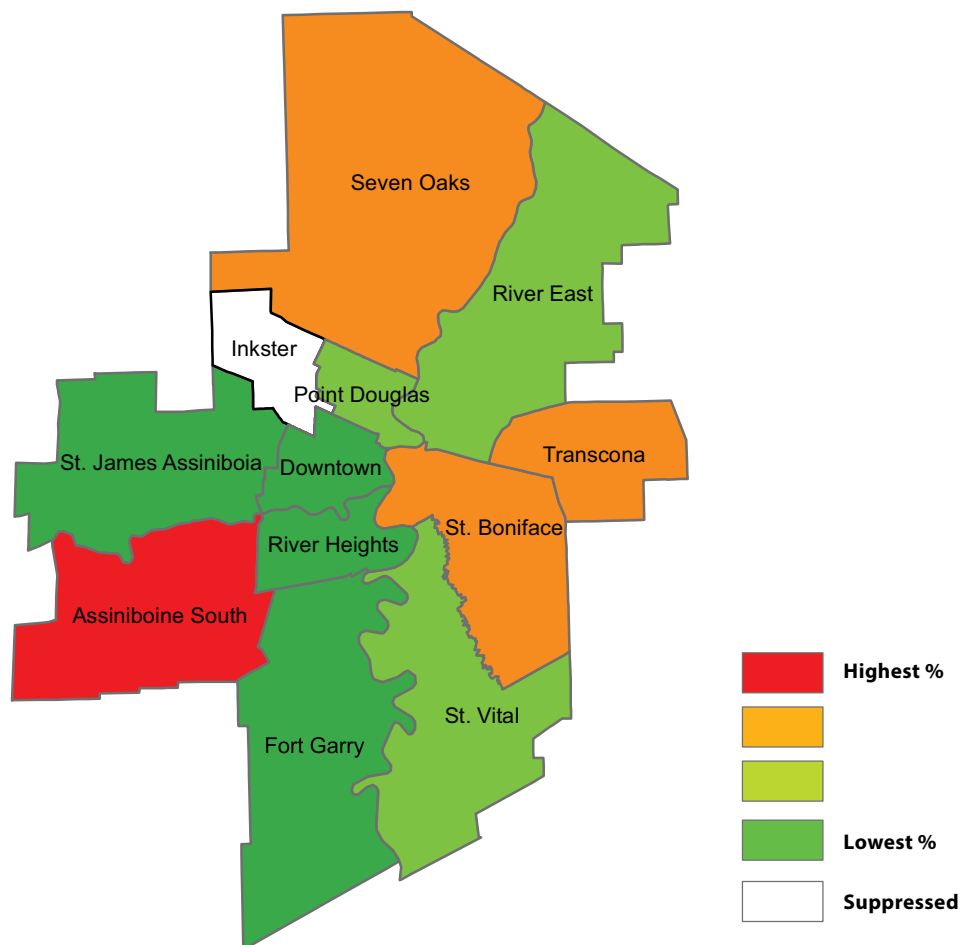
*Excluding Churchill

italics - indicates a warning - the area's rate is highly variable and should be interpreted with caution

's' indicates that the results were suppressed to ensure confidentiality

Looking for a Regular Medical Doctor by Winnipeg Community Area

Age- & sex-standardized percentages of residents aged 12+ in need of regular physician from combined CCHS cycles 2007–2008, 2009–2010, & 2011–2012



Source: Canadian Community Health Survey, 2007–2012



Indicator: Use of Physicians

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents (all ages) who attended at least one ambulatory visit in a given year. Ambulatory visits include almost all contacts with physicians (general practitioners, family practitioners, and specialists) regardless of site: office visits, walk-in clinics, home visits, personal care home (nursing home) visits, and visits to outpatient hospital departments. Due to improved coding practices, prenatal visits are also included into the calculations for 2006/07 and 2011/12. Services provided to patients while admitted to hospital and emergency department visits are excluded.

NUMERATOR: Number of the Region's residents (all ages) who had at least one ambulatory visit in a given year.

DENOMINATOR: Number of the Region's residents (all ages) in a year who could have had one ambulatory visit.

CALCULATION: (Number of residents who attended at least one ambulatory visit/ Number of residents) ×100. Values were age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The percent of the Region's residents with at least one ambulatory visit in a year has decreased slightly from 84.7% in 2000/01 (prenatal visits not included) to 81.2% in 2011/12 (prenatal visits included) in the Region.
- There was little variation in the percentage of ambulatory visits across community areas/neighborhood clusters in Winnipeg; Churchill had a consistently lower percentage of residents with at least one ambulatory visit than did Winnipeg.

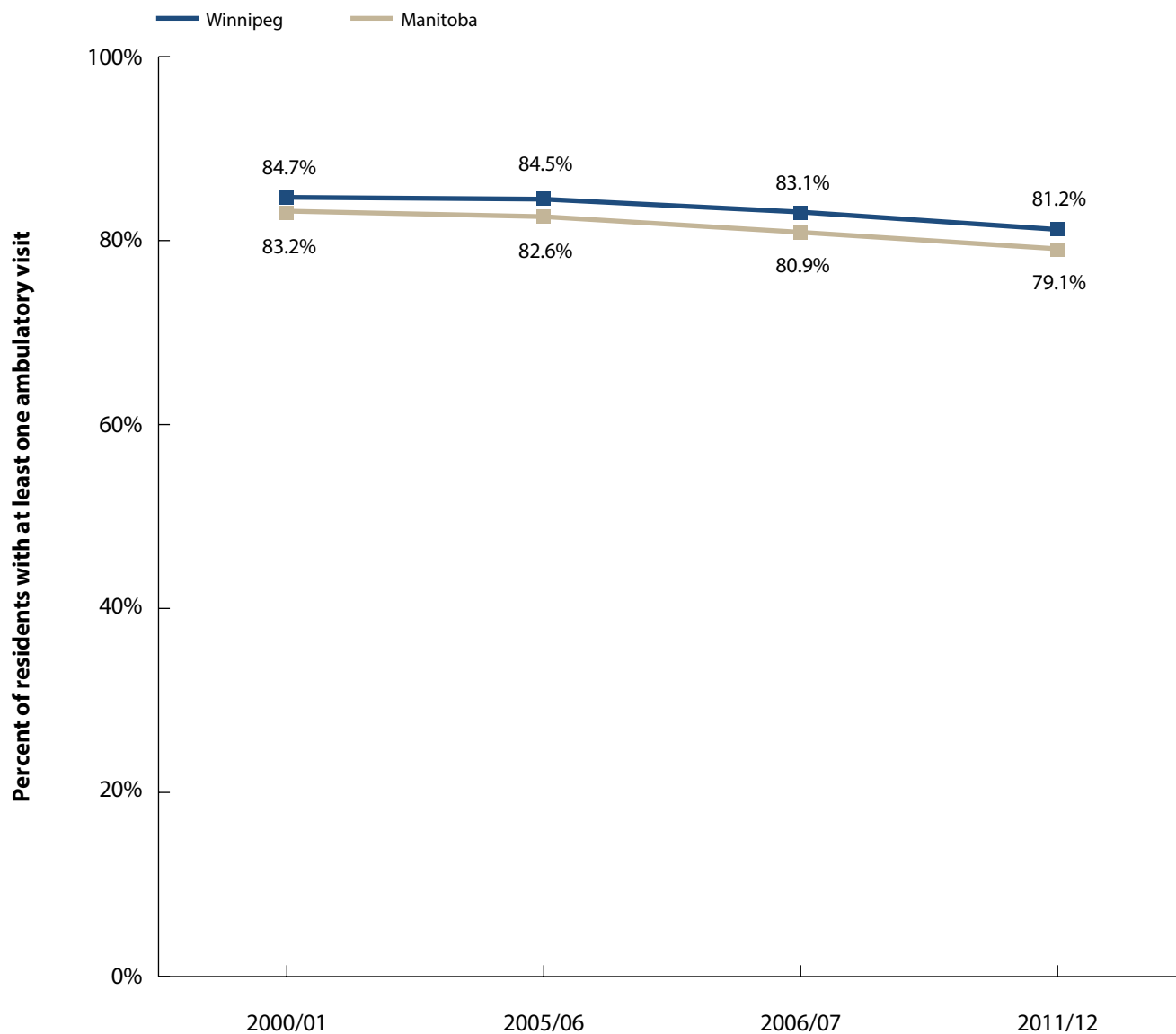
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Considering the inclusion of prenatal visits in the most recent calculation, the decrease in the use of physicians might have been more significant than it appears to be.

Figure A5.1.2.a1

Trends in Use of Physicians in Winnipeg & Manitoba

Age- & sex-adjusted percentage of residents with at least one ambulatory visit per year to any physician, 2000/01–2011/12

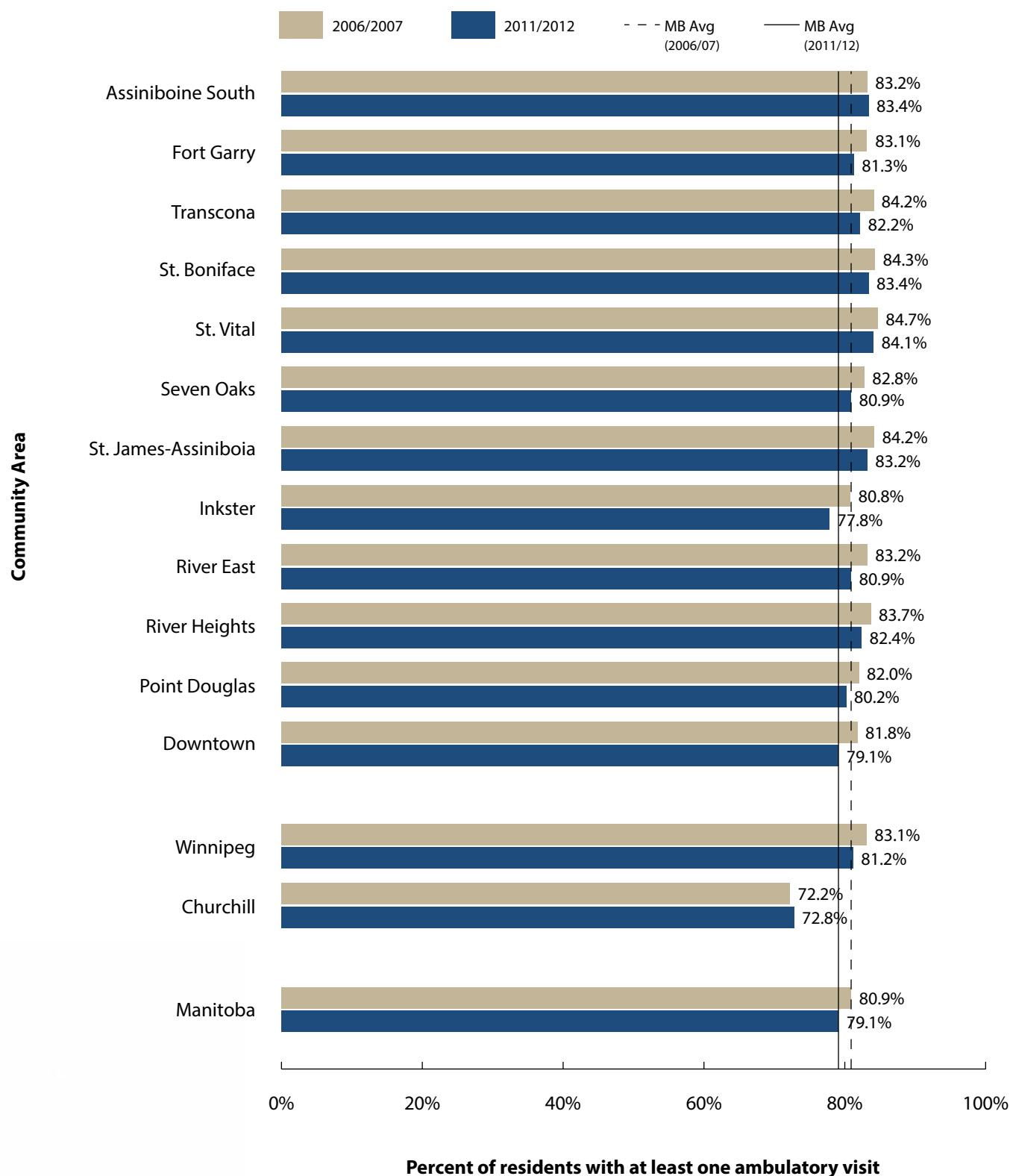


Sources: Manitoba Center for Health Policy, 2009 & 2013

Figure A5.1.2.a2

Use of Physicians by Winnipeg Community Area

Age- & sex-adjusted percentage of residents with at least one ambulatory visit per year to any physician, 2006/07 & 2011/12

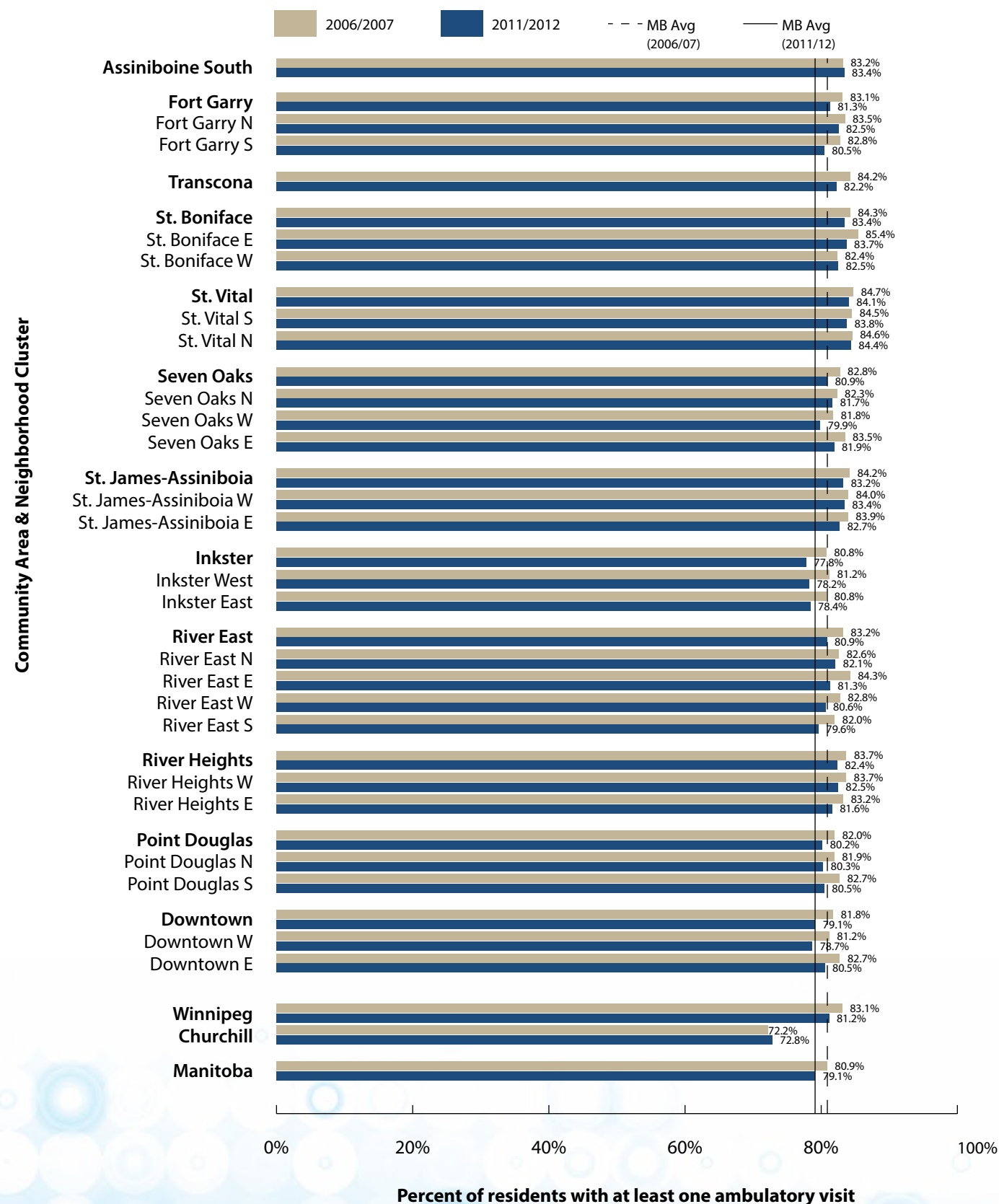


Source: Manitoba Center for Health Policy, 2013

Figure A5.1.2.a3

Use of Physicians by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percentage of residents with at least one ambulatory visit per year to any physician, 2006/07 & 2011/12

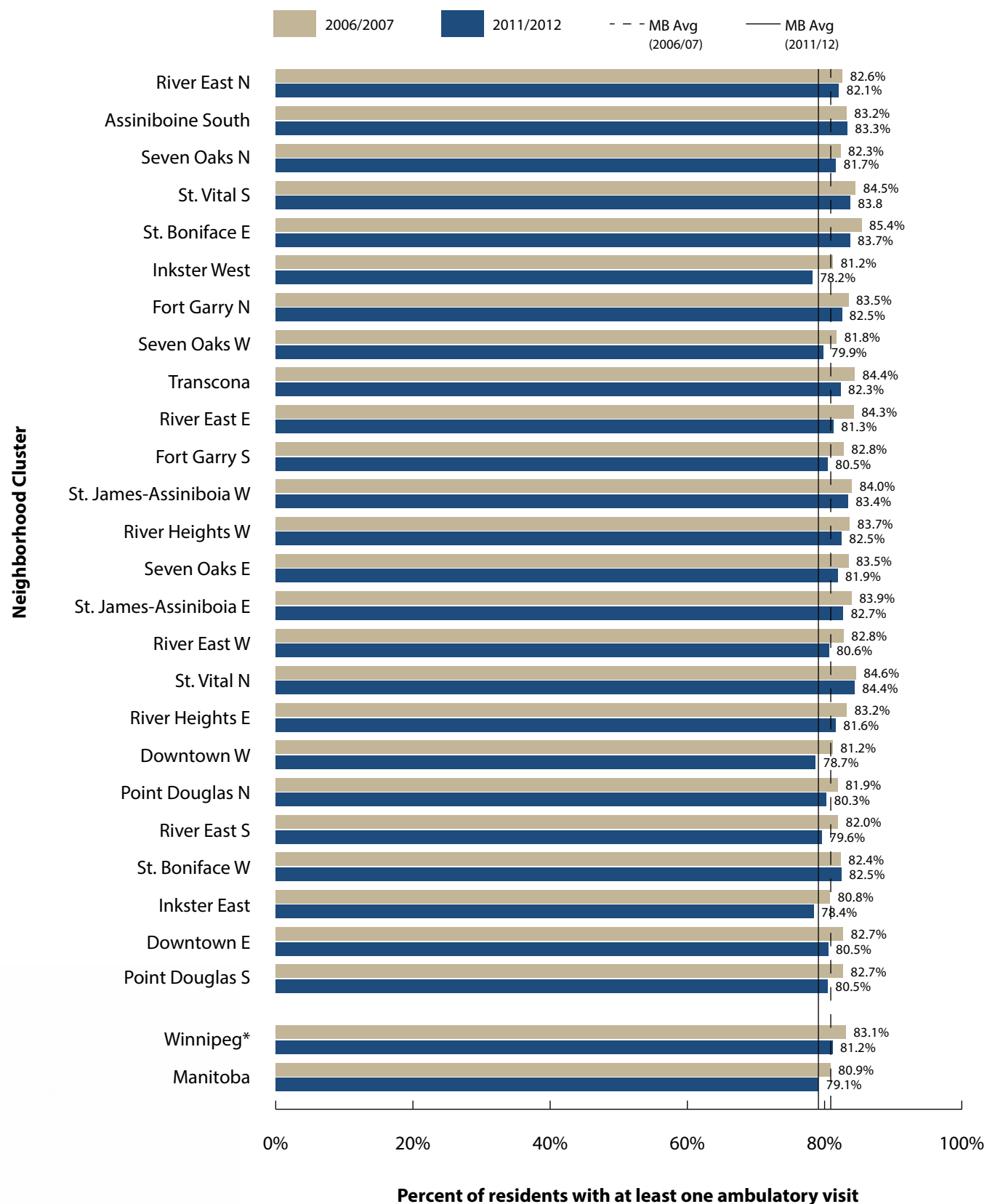


Source: Manitoba Center for Health Policy, 2013

Figure A5.1.2.a4

Use of Physicians by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percentage of residents with at least one ambulatory visit per year to any physician, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill



Indicator: Ambulatory Visits

DEFINITION: The average number of ambulatory visits per Winnipeg Regional Health Authority (the Region) resident (all ages) in a given year. Ambulatory visits include almost all contacts with physicians (general practitioners, family practitioners, and specialists) regardless of site: office visits, walk-in clinics, home visits, personal care home (nursing home) visits, and visits to outpatient departments. Due to improved coding practices, prenatal visits are also included into the calculations for 2006/07 and 2011/12. Services provided to patients while admitted to hospital and emergency department visits are excluded.

NUMERATOR: Number of ambulatory visits made by all the Region's residents in a given year.

DENOMINATOR: Number of the Region's residents in the given year.

CALCULATION: (Number of ambulatory visits by all the Region's residents/Number of the Region's residents). Average numbers were age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The number of ambulatory visits per resident in the Region appeared to decrease over time from 5.4 visits per resident in 2000/01 to 4.7 visits in 2011/12; these averages are consistently higher than the provincial average.
- Churchill had the lowest number of ambulatory visits (3.7 visits per resident in 2006/07 and 3.1 visits per resident in 2011/12) in the Region.
- There was little variation across the communities in Winnipeg: the lowest income NC residents (Point Douglas S) had 2.1 more ambulatory visits (or 1.52 times the number of ambulatory visits) than those from the highest income NC (River East N).

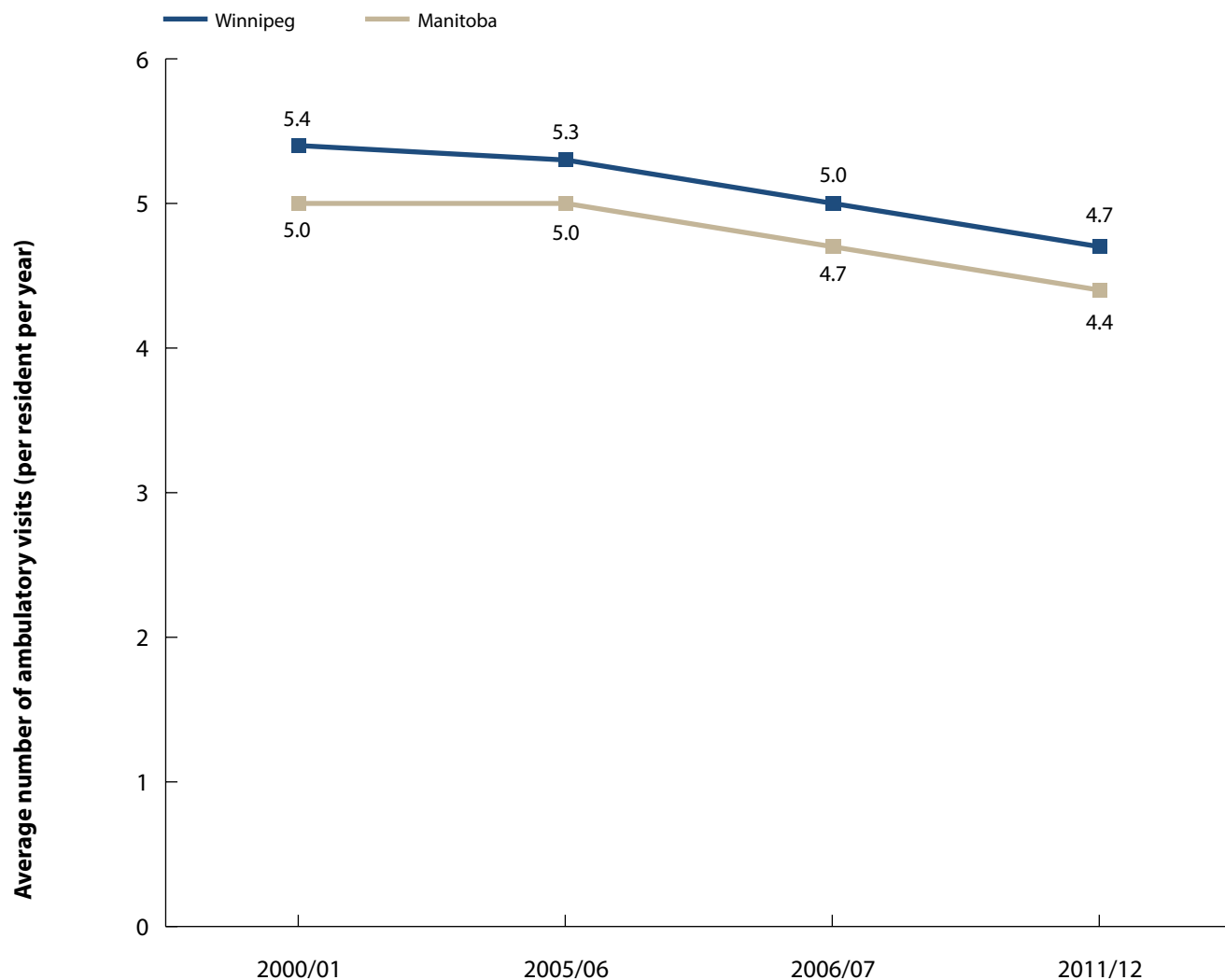
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The number of ambulatory visits appear to be associated with health status and access to care. Given the inclusion of prenatal visits in the second period, the decline in number of ambulatory visits might have been larger.

Figure A5.1.3.a1

Trends in Ambulatory Visits in Winnipeg & Manitoba

Age- & sex-adjusted average number of ambulatory visits to all physicians per resident per year, 2000/01–2011/12

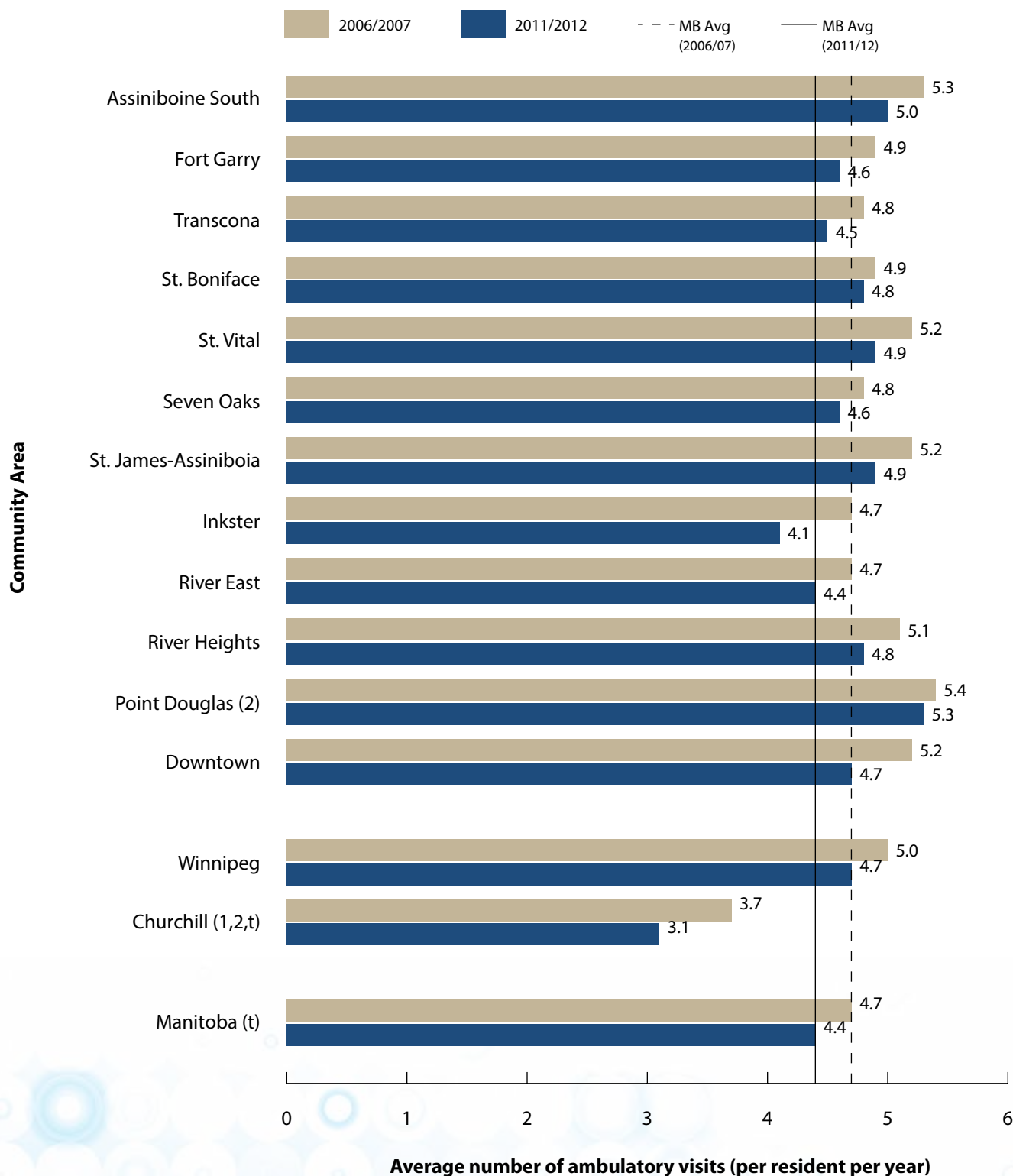


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.1.3.a2

Ambulatory Visits by Winnipeg Community Area

Age- & sex-adjusted average number of ambulatory visits to all physicians per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

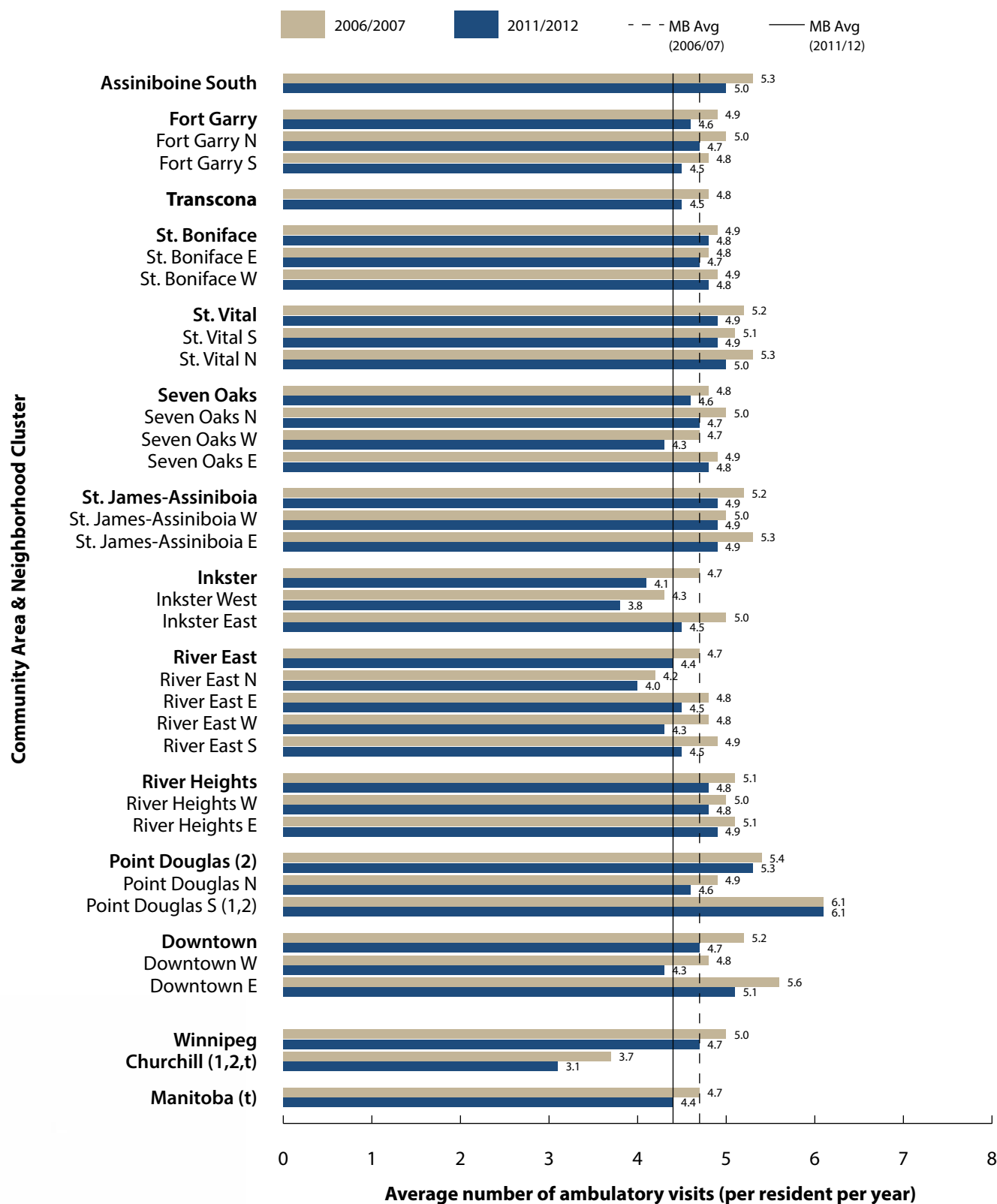
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.3.a3

Ambulatory Visits by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory visits to all physicians per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

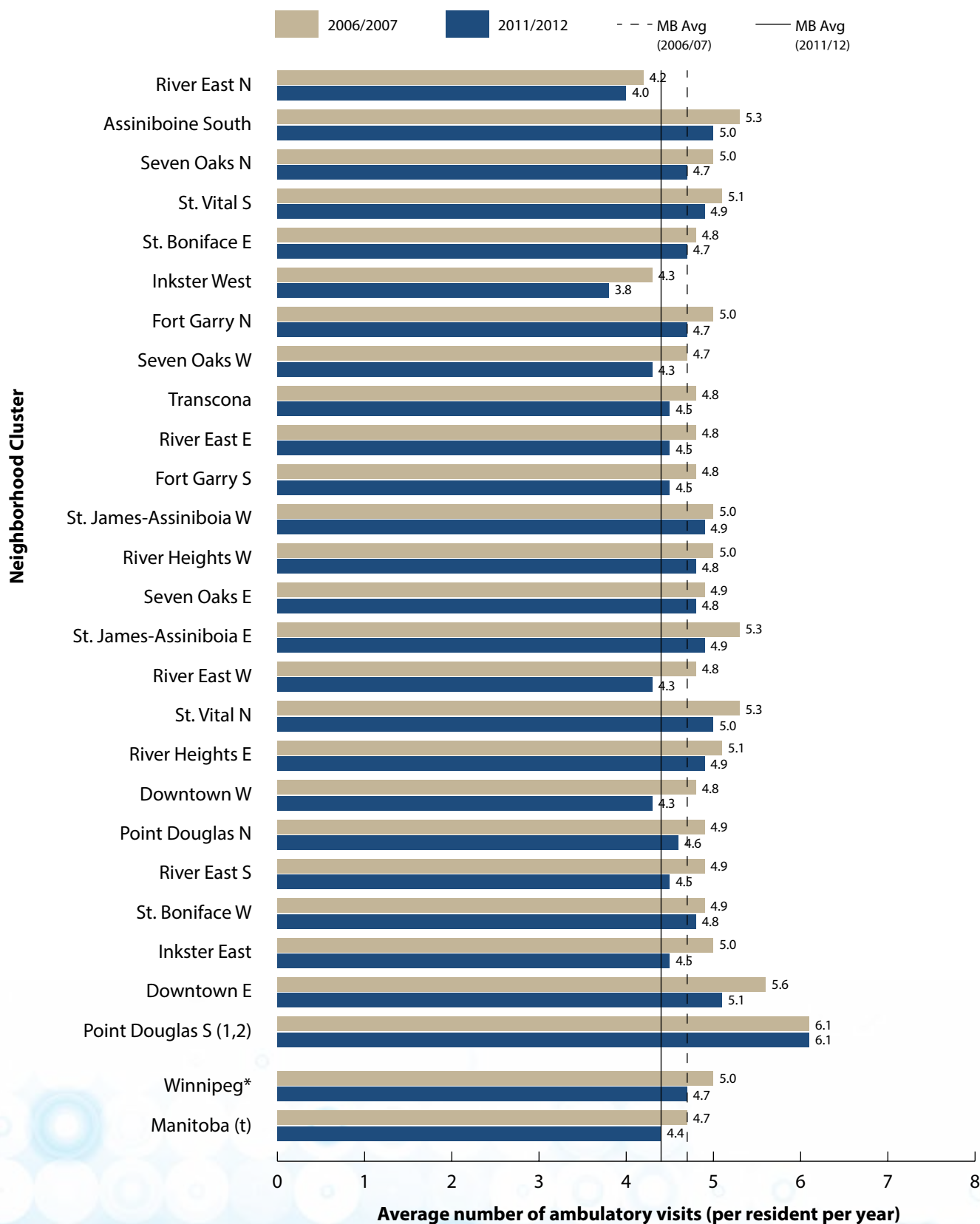
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.3.a4

Ambulatory Visits by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory visits to all physicians per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

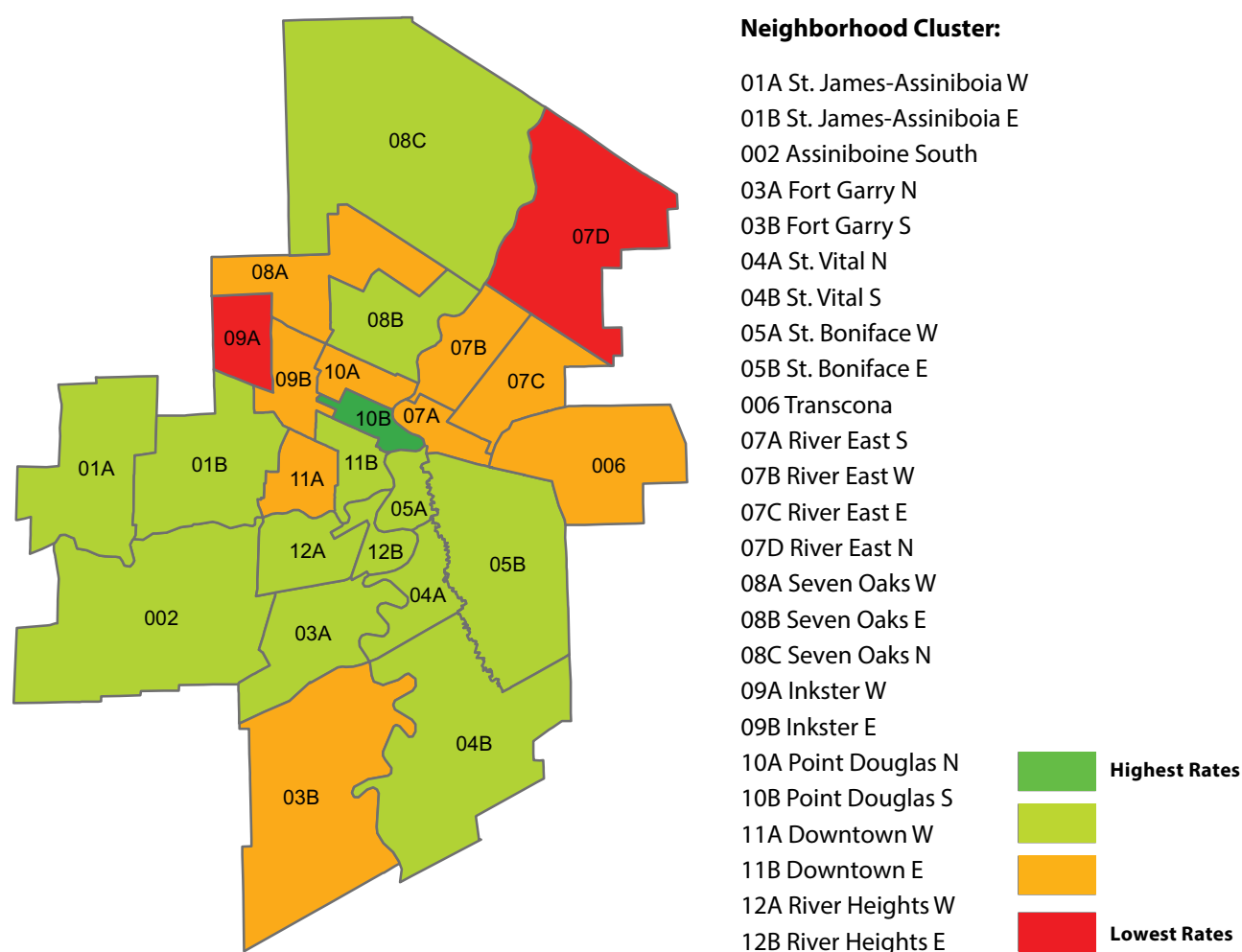
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Ambulatory Visits by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory visits to all physicians per resident per year, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A5.1.3.a1

Health Inequality in Number of Ambulatory Visits (per resident per year), by Median Household Income

Health Inequality Measures	Time Period	
	2006/07 # of ambulatory visits per resident per year	2011/12 # of ambulatory visits per resident per year
Number of Ambulatory Visits (per resident per year) by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	4.2	4.0
Lowest income NC (Point Douglas S)	6.1	6.1
Absolute difference (Lowest income NC – Highest income NC)	1.9	2.1
Ratio (Lowest income NC/ Highest income NC)	1.45	1.52

Source: Manitoba Centre for Health Policy, 2013



Indicator: Ambulatory Consultations

DEFINITION: The average number of ambulatory consultations (first referral) per Winnipeg Regional Health Authority (the Region) resident (all ages) in a given year. Ambulatory consultation is a subset of ambulatory visits that occurs when one physician refers a patient to another physician (usually a specialist or surgeon) because of the complexity, obscurity, or seriousness of the condition or when the patient requests a second opinion. After the consultation, patients usually return to their general practitioners, family practitioners or pediatricians for ongoing management.

NUMERATOR: Number of ambulatory consultations by all the Region's residents in a given year.

DENOMINATOR: Number of the Region's residents (all ages) in the given year.

CALCULATION: (Number of ambulatory consultations by all residents/Number of residents). Average numbers were age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The average number of ambulatory consultations per resident per year stabilized over the past 10 years in the Region. In 2011/12, each resident had, on average, 0.31 ambulatory consultations (or, for every 100 residents 31 ambulatory consultations took place).
- There was little variation in the average number of ambulatory consultations across the Region.
- There was no close association between ambulatory consultation rate and household income.

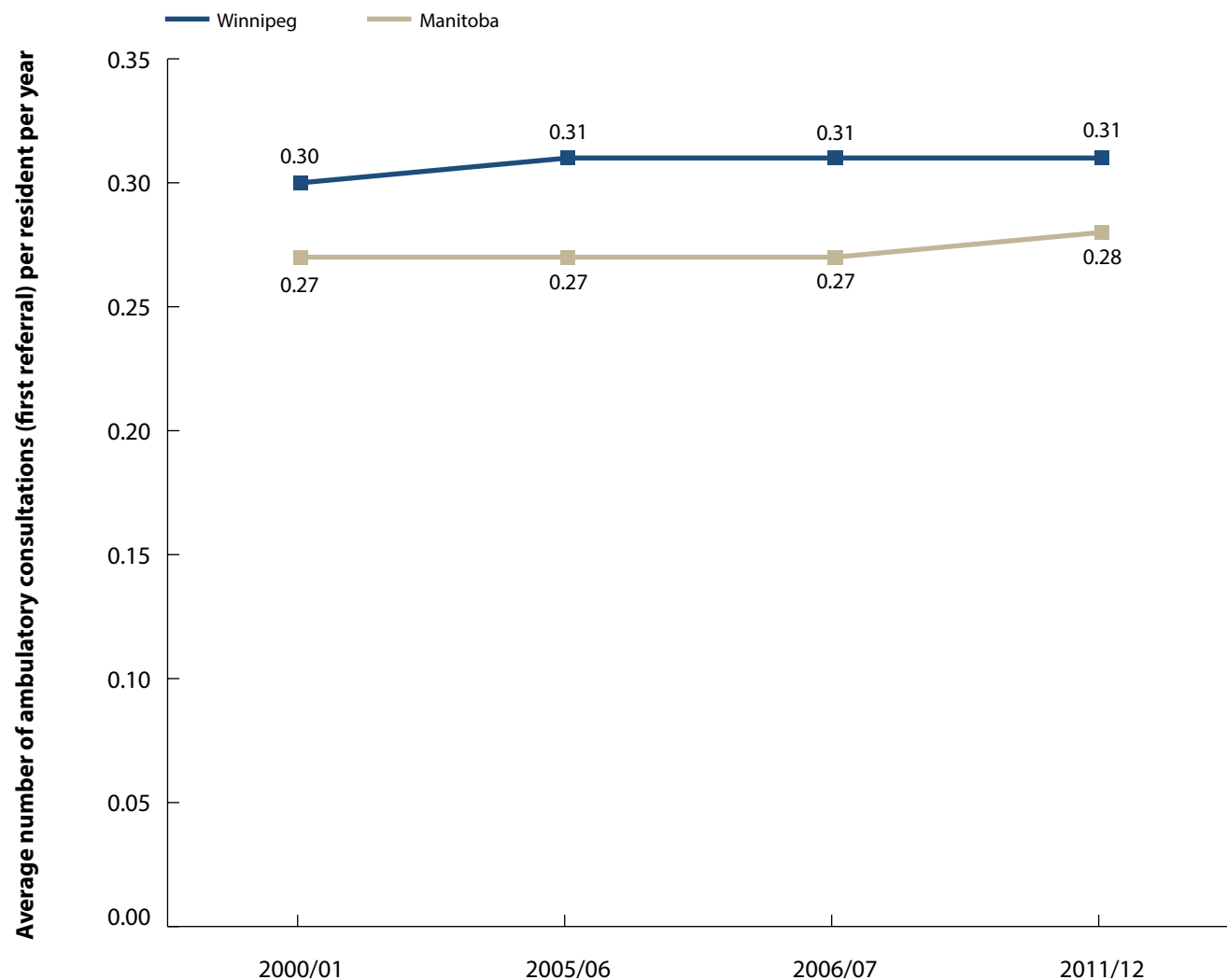
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This indicator is a measure of access to specialist care.

Figure A5.1.4.a1

Trends in Ambulatory Consultations in Winnipeg & Manitoba

Age- & sex-adjusted average number of ambulatory consultations (first referral) per resident per year, 2000/01–2011/12

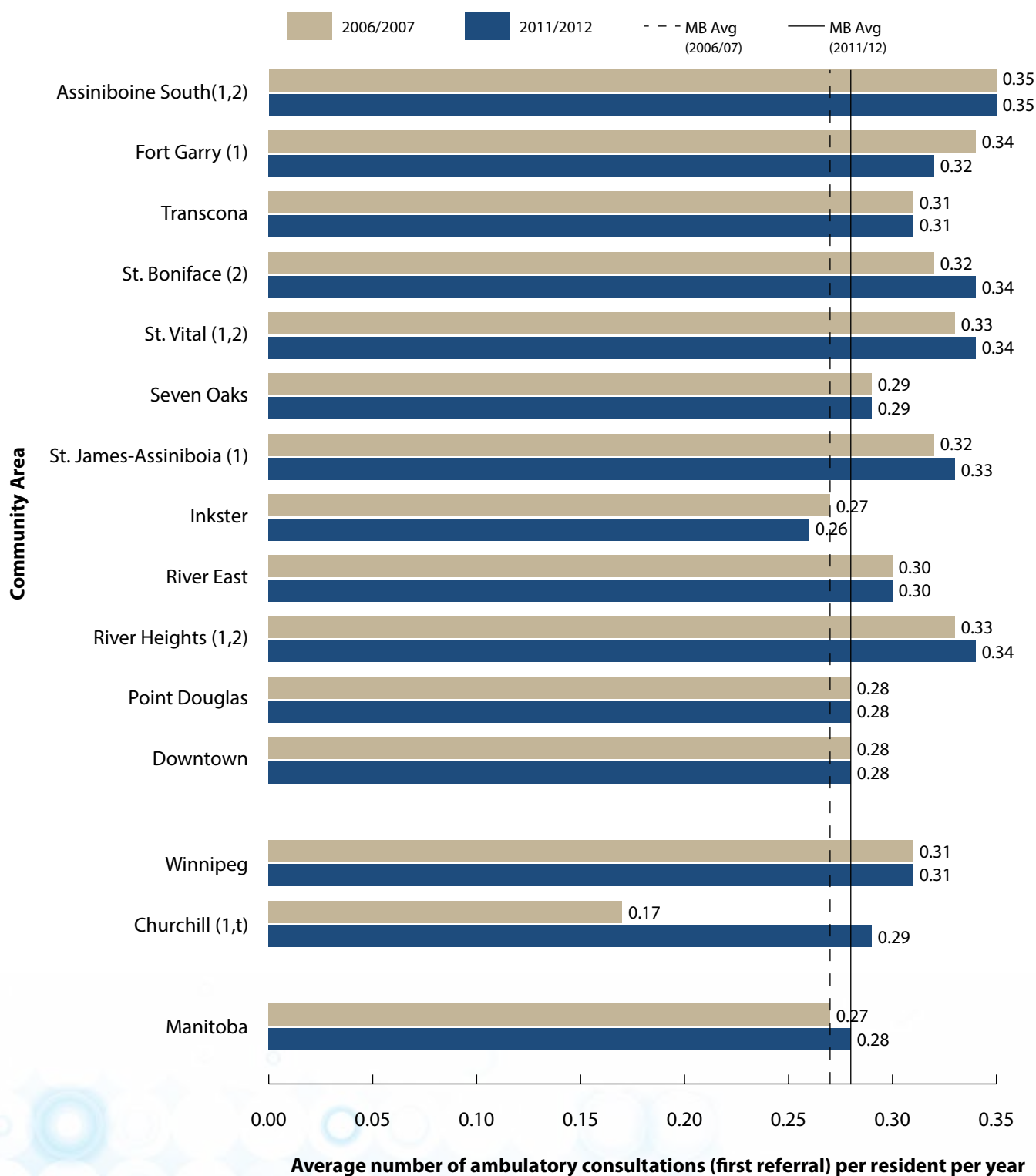


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.1.4.a2

Ambulatory Consultations by Winnipeg Community Area

Age- & sex-adjusted average number of ambulatory consultations (first referral) per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

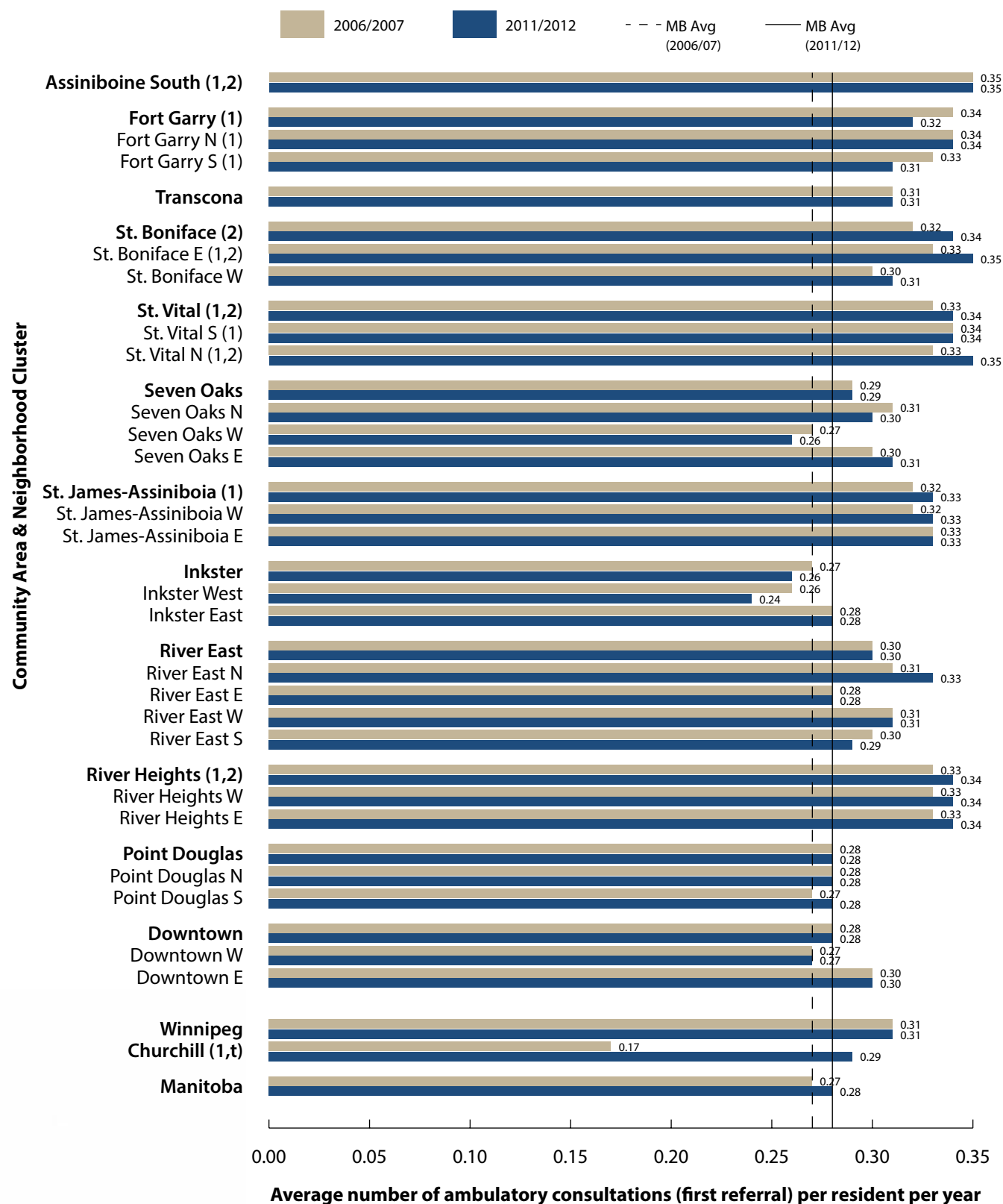
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.4.a3

Ambulatory Consultations by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory consultations (first referral) per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

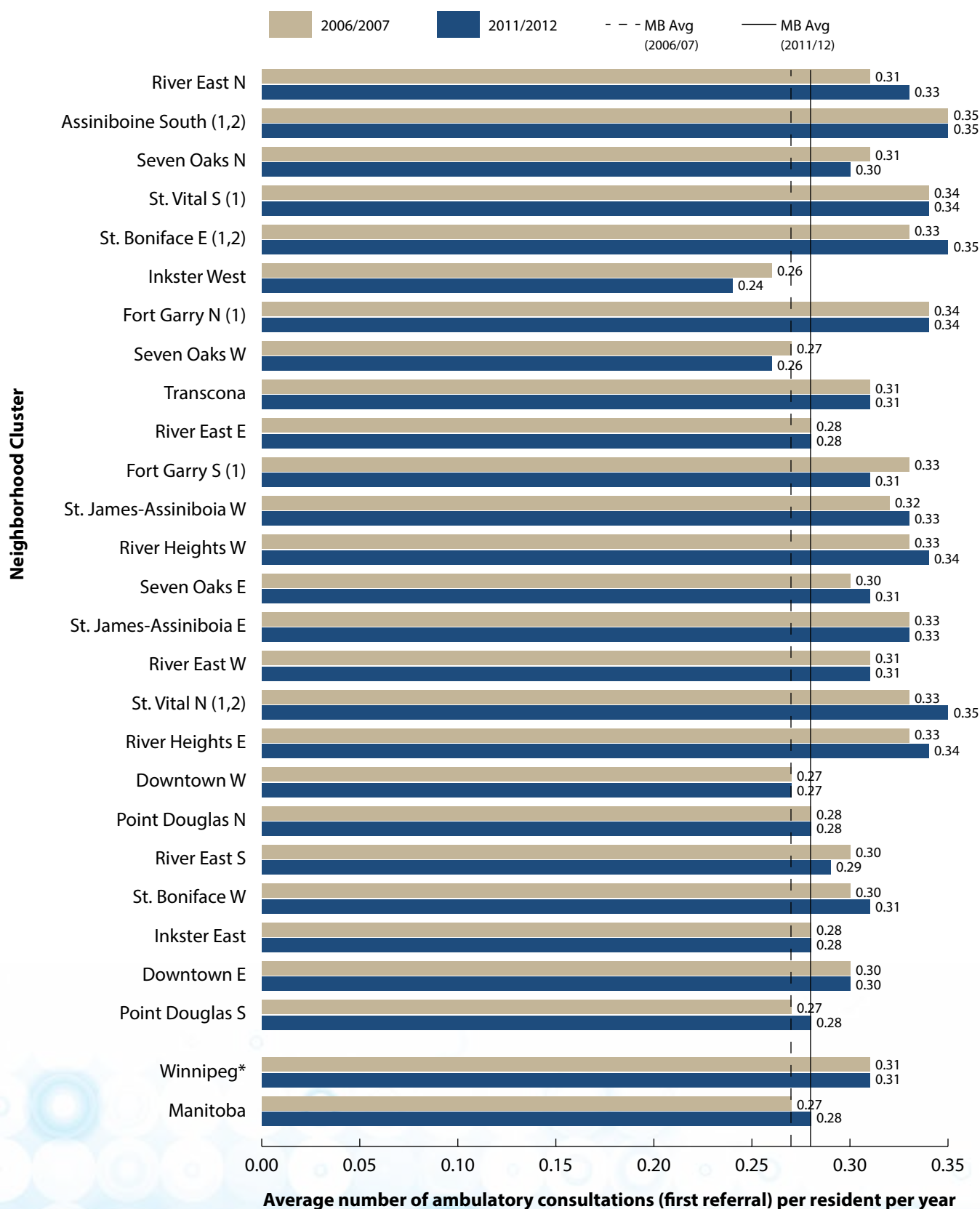
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.4.a4

Ambulatory Consultations by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory consultations (first referral) per resident per year, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

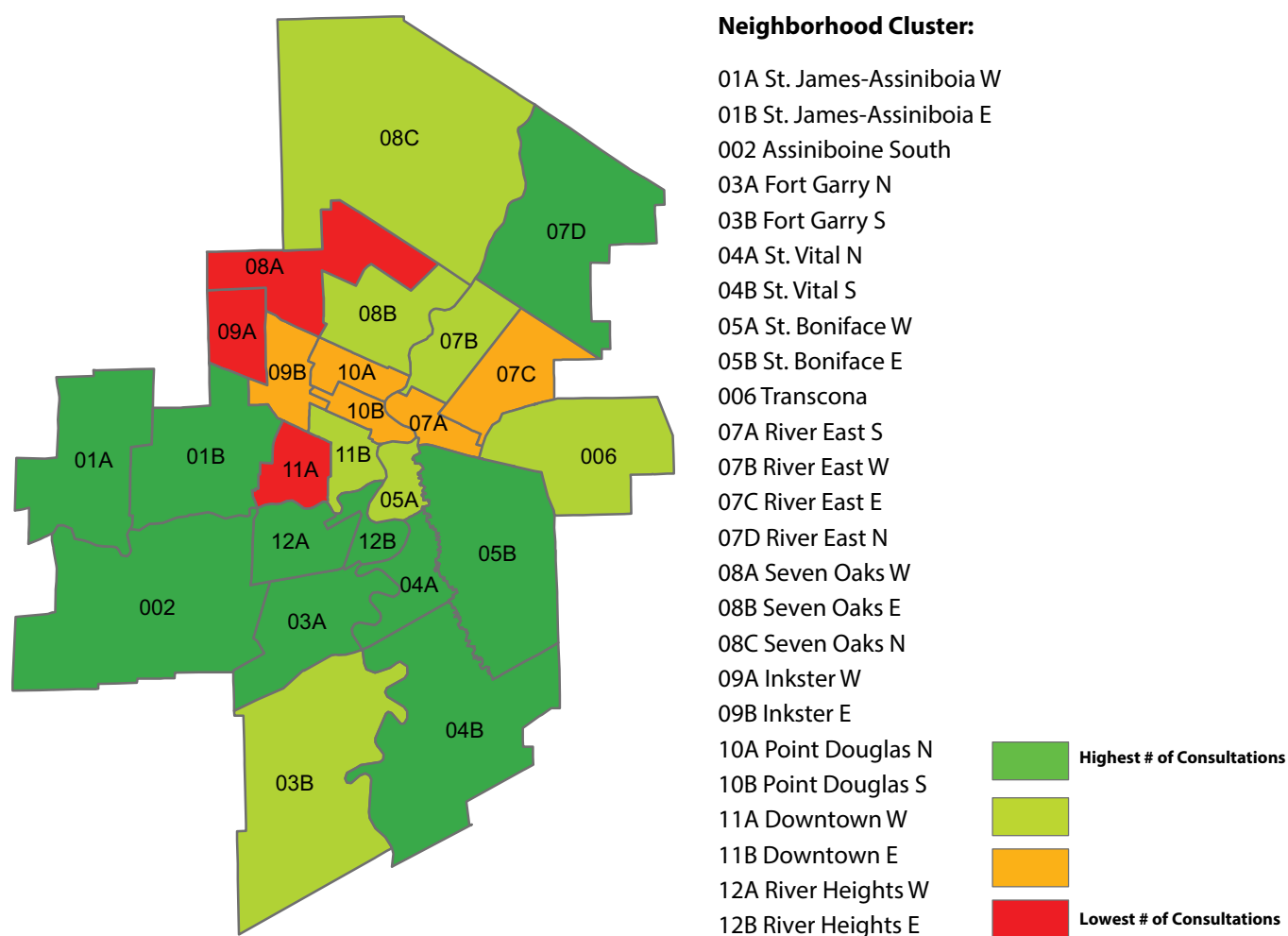
*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Ambulatory Consultations by Winnipeg Neighborhood Cluster

Age- & sex-adjusted average number of ambulatory consultations (first referral) per resident per year, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A5.1.4.a1

Health Inequality in Number of Ambulatory Consultations (per resident per year), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 # of ambulatory consultations per resident per year	2011/12 # of ambulatory consultations per resident per year
Number of Ambulatory Consultations (per residents per year) by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	0.31	0.33
Lowest income NC (Point Douglas S)	0.27	0.28
Absolute difference (Highest income NC – Lowest income NC)	0.04	0.05
Ratio (Highest income NC / Lowest income NC)	1.15	1.18
Number of Ambulatory Consultations (per resident per year) by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	0.33	0.33
U4	0.33	0.32
U3	0.30	0.31
U2	0.30	0.31
Lowest Urban Income Quintile (U1)	0.30	0.30
Absolute difference (U5-U1)	0.03	0.03
Ratio (U5/U1)	1.10	1.10

Source: Manitoba Centre for Health Policy, 2013



Indicator: Location of Visits to General Practitioners (GPs) or Family Practitioners (FPs)

DEFINITION: The percentage of ambulatory visits made by residents of each RHA to GPs and FPs in the resident's (home) RHA district (for rural regions only), elsewhere in their home RHA, in another RHA, or in the Winnipeg Regional Health Authority (the Region). For each month, every physician in Manitoba gets assigned to the area in which the majority of their patients live. If the physician and the patient are in the same area, then the visit gets assigned to that RHA area. Otherwise, the visit is assigned to the location where the physician was located that month. Only visits for Manitoba residents within Manitoba were included. Visits provided to Churchill residents by physicians in Churchill are called "within district", whereas those provided in Winnipeg were called "elsewhere in RHA".

NUMERATOR: Ambulatory visits made by residents of each RHA to GPs and FPs in the patient's RHA district, elsewhere in their home RHA, in another RHA, or in the Winnipeg RHA.

DENOMINATOR: All ambulatory visits made by residents of respective RHAs.

CALCULATION: Crude values are shown for 2006/07 and 2011/12.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- Winnipeg residents receive virtually all of their visits within the city.
- Less than 3% of Winnipeg Regional Health Authority (the Region) residents (mainly Churchill) had ambulatory visits in other RHAs.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Many residents from other RHAs are seeing GPs and FPs in Winnipeg.

Table A5.1.5.a1

Location of Visits to General/Family Practitioners by RHA

Where RHA residents went for visits to GP/FPs, 2006/07 & 2011/12

RHA	In Winnipeg	In District	Elsewhere in RHA	In Other RHA
Winnipeg 2006/07	n/a	97.3%	0.01%	2.7%
Winnipeg 2011/12	n/a	97.6%	0.01%	2.4%
Southern 2006/07	18.1%	46.0%	31.2%	4.7%
Southern 2011/12	20.3%	46.2%	30.5%	3.1%
Prairie Mountain 2006/07	2.0%	71.8%	23.7%	2.5%
Prairie Mountain 2011/12	1.8%	73.2%	23.5%	1.5%
Interlake-Eastern 2006/07	31.0%	46.6%	19.0%	3.4%
Interlake-Eastern 2011/12	27.7%	49.1%	20.7%	2.5%
Northern 2006/07	7.2%	70.4%	13.7%	8.7%
Northern 2011/12	7.9%	76.9%	11.0%	4.2%
Manitoba 2006/07	5.9%	80.8%	10.1%	3.2%
Manitoba 2011/12	5.9%	81.4%	10.3%	2.4%

Source: Manitoba Centre for Health Policy, 2013

(n/a) indicates "Not Applicable"



Indicator: Majority of Care

DEFINITION: The percentage of Winnipeg Regional Health Authority (the Region) residents (all ages) receiving at least 50% of their ambulatory visits over a two-year period from the same physician. For children aged 0 to 14 years, the primary physician could be a general practitioner (GP), a family practitioner (FP), or a pediatrician; for residents aged 15 to 59 years, only GPs and FPs; for seniors aged 60 years and older, a GP/FP or an internal medicine specialist. Residents with fewer than three ambulatory visits over the two-year period were excluded.

NUMERATOR: Number of residents (all ages) receiving at least 50% of their ambulatory visits from the same physician.

DENOMINATOR: Number of residents receiving three (3) and more ambulatory visits (all ages).

CALCULATION: (Number of residents receiving at least 50% of their ambulatory visits from the same physician/ Number of residents receiving three (3) or more ambulatory visits)×100. Values were age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2005/06-2006/07 Manitoba population as the standard population for 2005/06-2006/07 and 2010/11-2011/12).

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- The percent of residents receiving more than 50% of their ambulatory visits from the same physician has decreased slightly from 76% in 2005/06-2006/07 to 75% in 2010/11-2011/12.
- Churchill had a particularly high percent of residents receiving more than 50% of their visits from the same physician (93.4% in 2010/11-2011/12).
- In the Region, there was little variation across community areas/neighborhood clusters.

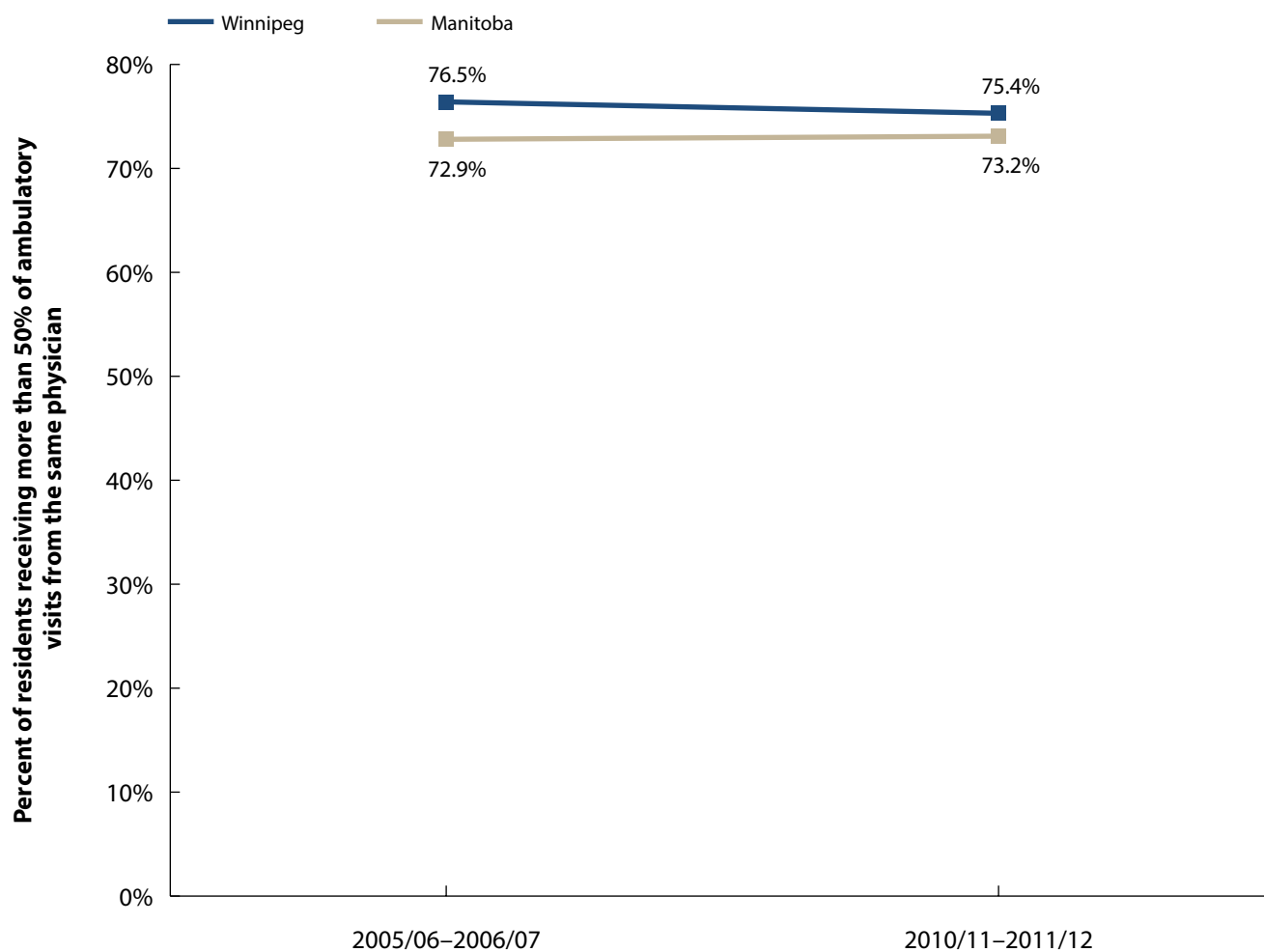
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This indicator reflects the degree of continuity of ambulatory care and the results indicate an improvement in the Region.

Figure A5.1.6.a1

Trends in Majority of Care in Winnipeg & Manitoba

The percent of residents receiving more than 50% of their ambulatory visits over a two-year period from the same physician, 2005/06–2011/12

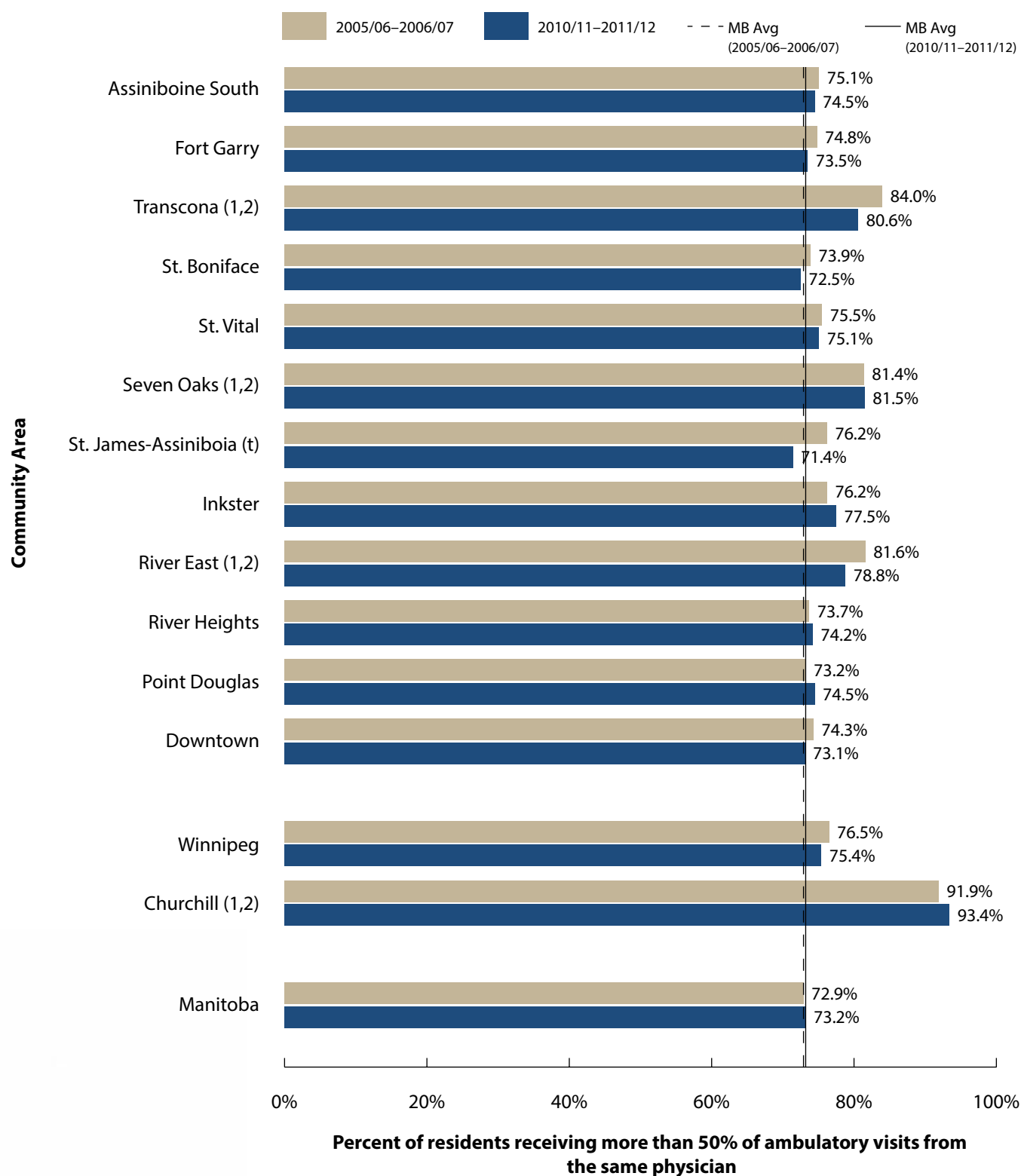


Sources: Manitoba Centre for Health Policy, 2013

Figure A5.1.6.a2

Majority of Care by Winnipeg Community Area

The percent of residents receiving more than 50% of their ambulatory visits over a two-year period from the same physician, 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

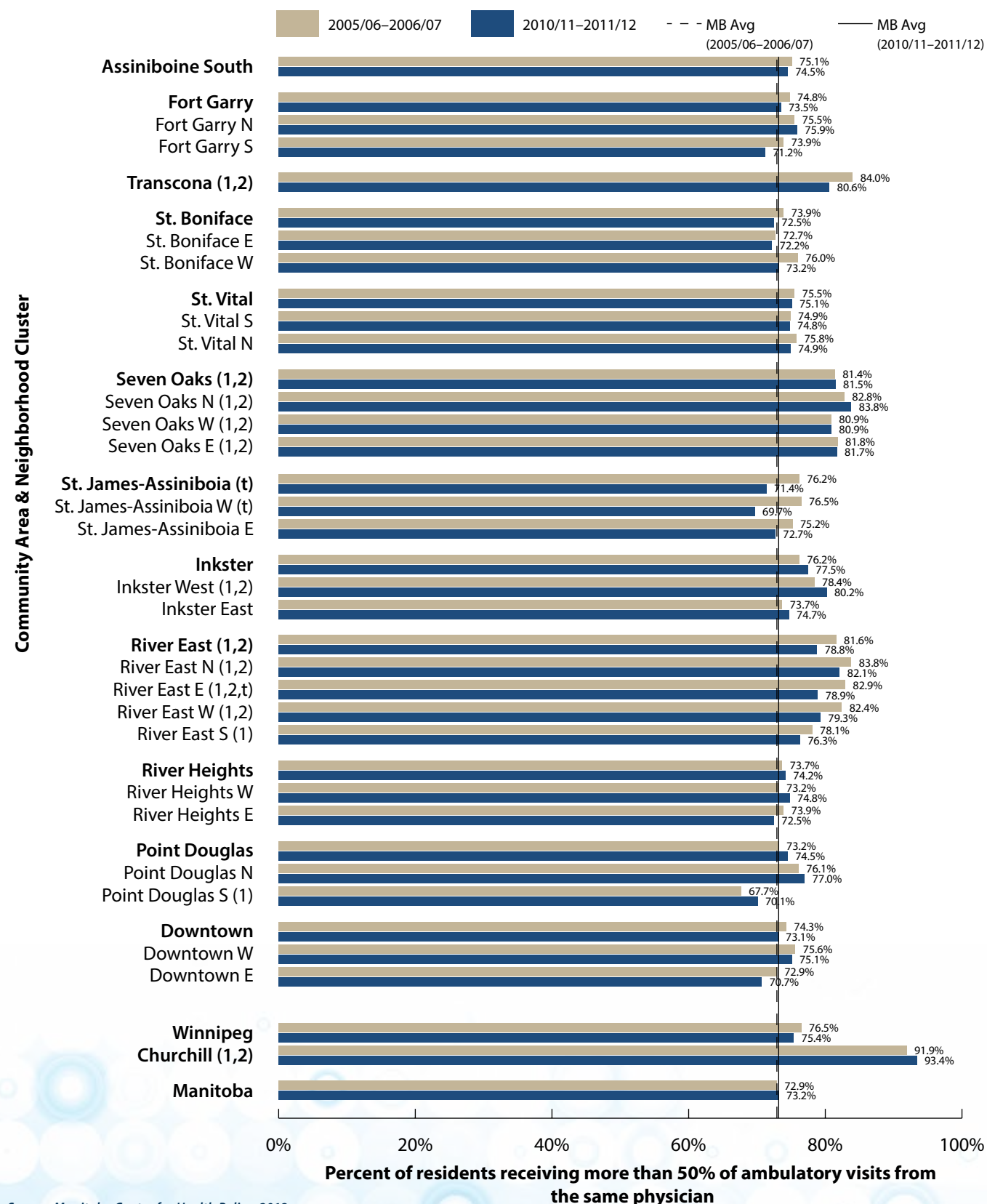
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.6.a3

Majority of Care by Winnipeg Community Area & Neighborhood Cluster

The percent of residents receiving more than 50% of their ambulatory visits over a two-year period from the same physician, 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

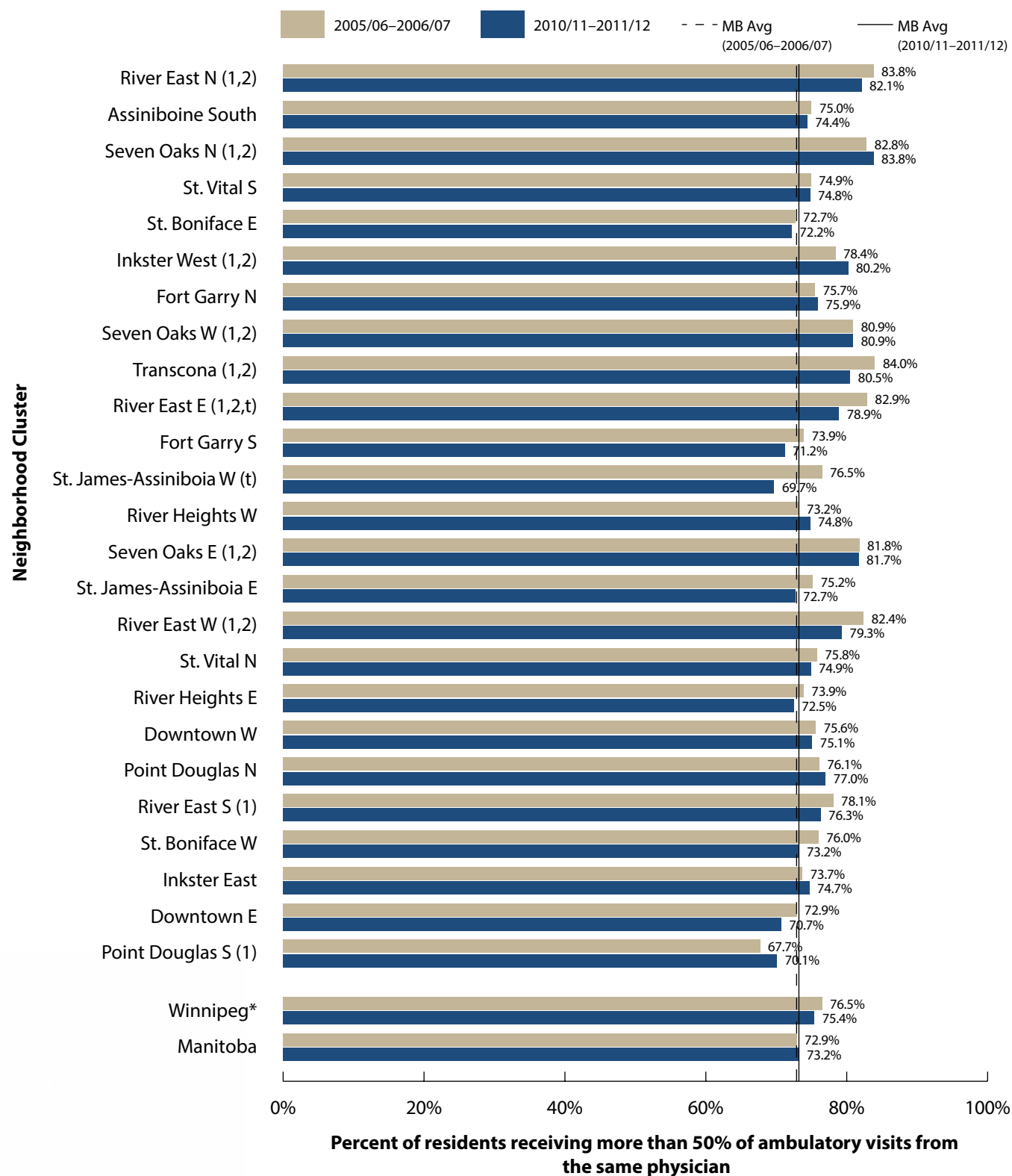
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.6.a4

Majority of Care by Winnipeg Neighborhood Cluster

The percent of residents receiving more than 50% of their ambulatory visits over a two-year period from the same physician, 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

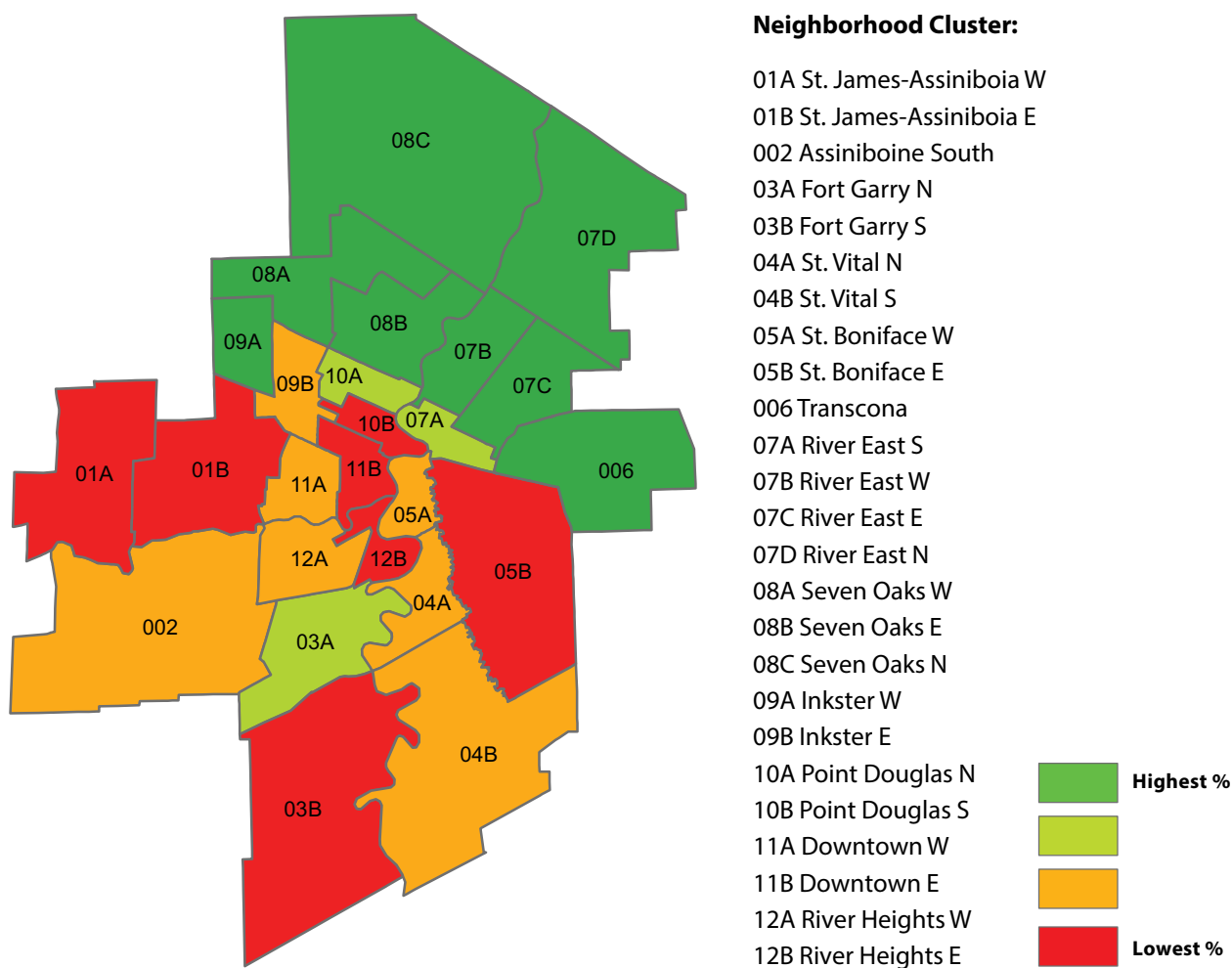
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates that for that area, the change in rates from Time 1 to Time 2 was significant

Majority of Care by Winnipeg Neighborhood Cluster

The percent of residents receiving more than 50% of their ambulatory visits over a two-year period from the same physician, 2010/11–2011/12



Source: Manitoba Centre for Health Policy, 2013



Indicator: Most Frequent Reasons for Physician Visits

DEFINITION: The most frequent reasons for ambulatory visits are reported for fiscal years 2006/07 and 2011/12. Only one diagnosis code is recorded for each ambulatory visit which is assumed to be the “reason” for the visit.

NUMERATOR: Number of ambulatory physician visits for a specific reason (diagnosis code) in a given year.

DENOMINATOR: Number of ambulatory physician visits in the year.

CALCULATION: Reasons for physician visits are shown as average annual crude percentages.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- The reasons for physician visits were spread across many diseases, at nearly equal proportions (about 10%) for the top five conditions.
- The same diseases: Mental illness, health status and contact, respiratory, musculoskeletal, and circulatory comprise the top five categories in each time period, even though their exact rankings change.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

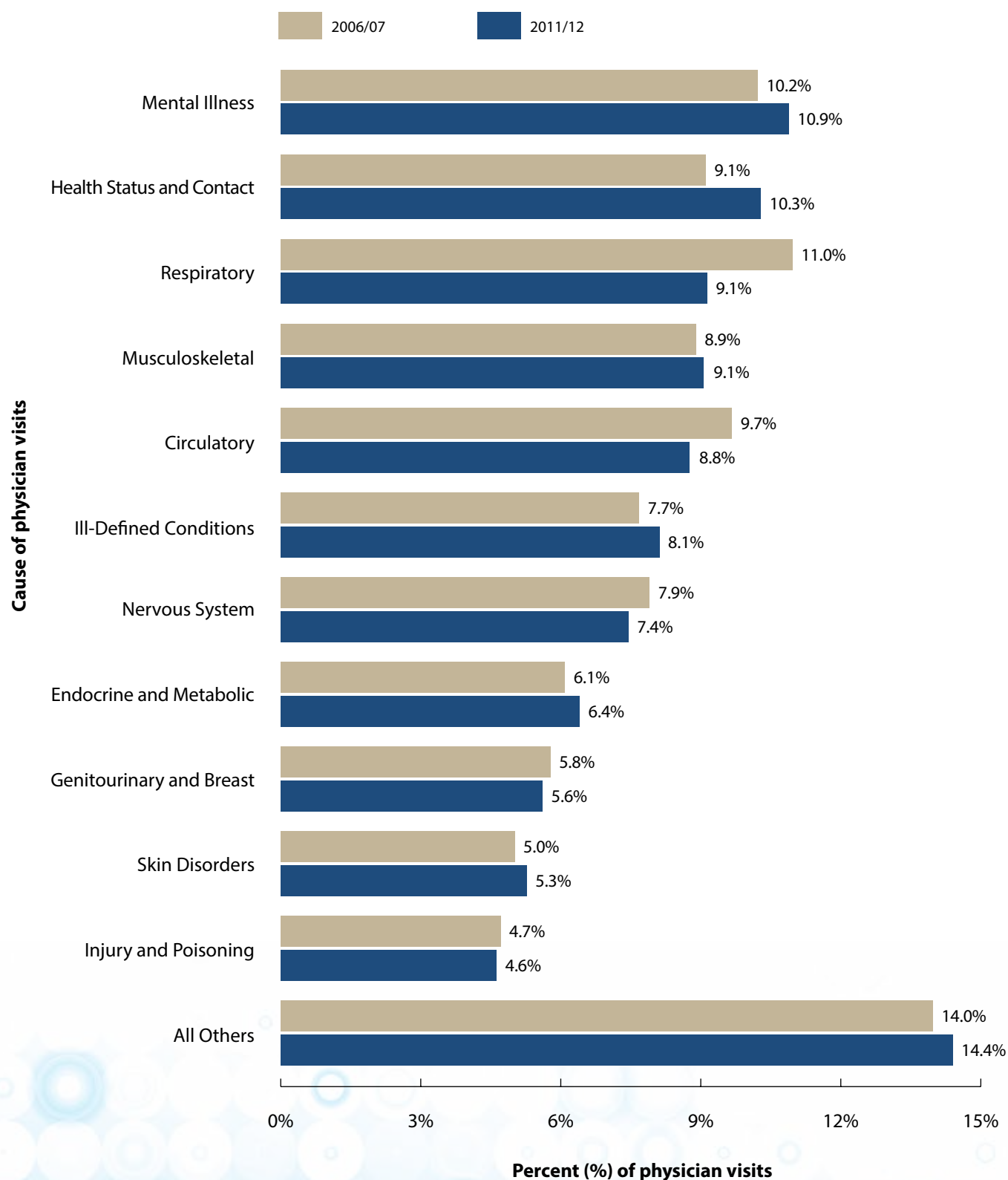
- This indicator describes the distribution of reasons for ambulatory visits attributed to a group of diagnoses.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A5.1.7.a1

Most Frequent Reasons for Physician Visits in the Winnipeg Regional Health Authority

Average annual crude percent of physician visits, 2006/07 & 2011/12



Source: Manitoba Centre for Health Policy, 2013

Note: Health status and contact: The majority of visits in this category are for general medical examinations; but it also includes a number of other issues like well-baby care, contraceptive management, and other examinations. So for in these visits, patients usually were not presenting for a specific problem



Indicator: Hospitalization for Ambulatory Care Sensitive Conditions

DEFINITION: The proportion of inpatient hospitalizations for ambulatory care sensitive conditions (ACSCs) among Winnipeg Regional Health Authority (the Region) residents aged 75 years and younger in a given year. ACSCs are a group of 17 diseases and diagnoses, including asthma, angina, gastroenteritis, and congestive heart failure that should be treated in the community and not in hospital.

NUMERATOR: Number of inpatient hospitalizations for ACSCs among the Region's residents aged 75 years and younger in a given year.

DENOMINATOR: Number of the Region's residents aged 75 years and younger in the given year.

CALCULATION: (Number of inpatient hospitalizations for ACSCs among the Region's residents aged 75 years and younger/Number of the Region's residents aged 75 years and younger)×1,000. Proportions are age- and sex-adjusted to the Manitoba population aged 75 years and younger in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The proportion of hospitalizations for ACSCs among the Region's residents aged 75 years and younger decreased over time, from 6.6 hospitalizations per 1,000 residents in 2000/01 to 4.1 hospitalizations per 1,000 residents in 2011/12. The Region's proportion of hospitalizations is consistently lower than the provincial average.
- Churchill had the highest proportion of hospitalizations for ACSCs (16.9 hospitalizations per 1,000 residents in 2006/07 and 28.4 per 1,000 residents in 2011/12). Within Winnipeg, neighborhood clusters (NC) Point Douglas South (19.2 per 1,000 in 2006/07 and 11.9 per 1,000 in 2011/12) and Downtown East (13.5 per 1,000 in 2006/07 and 10.1 per 1,000 in 2011/12) had the highest proportions of hospitalization for ACSCs.
- Residents living in low income areas were more likely to be hospitalized for ACSCs: In 2011/12, residents in the lowest income NC (Point Douglas S) were 9.15 times more likely to be hospitalized for ACSCs than those in the highest income NC (River East North); and the Region's residents in the lowest income quintile were 3.95 times more likely to be hospitalized for ACSCs than those in the highest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

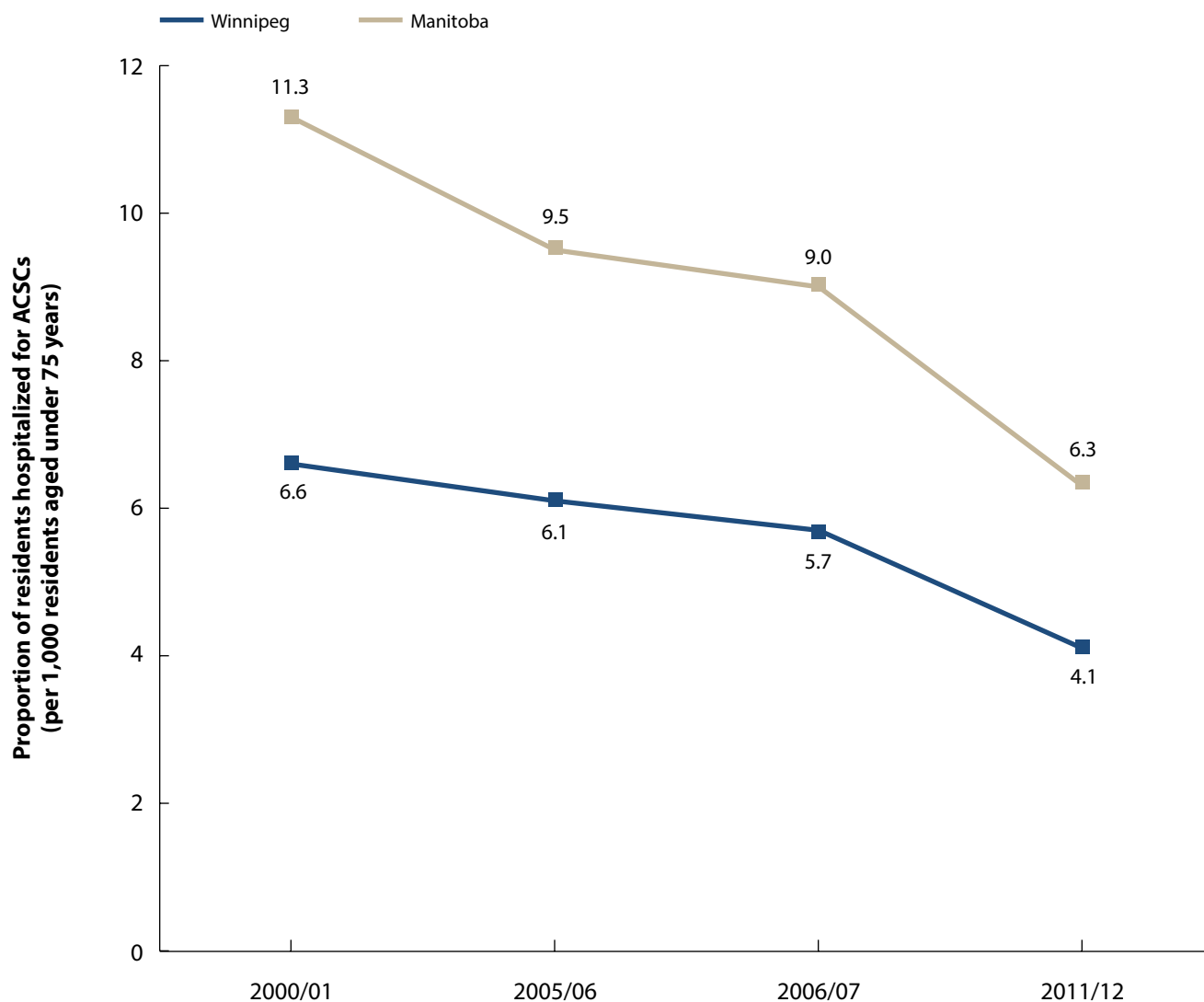
- Hospitalizations for ACSCs are often considered avoidable if the conditions are managed appropriately through ambulatory care. This indicator is an indirect measure of access to primary health care, care in the community, and the ability of the health care system to effectively manage chronic conditions.
- Data suggest that chronic disease management in community settings has improved overall, but it remains a challenge in some of the lower income communities.
- The definition for ACSCs in this report is different from that in the 2011 Statistics Canada report¹, so the data are not directly comparable.

¹ Sanmartin C, Khan S and the LHAD Research Team. Hospitalizations for ambulatory care sensitive conditions (ACSC): the factors that matter. Health Research Working Paper Series No. 8, Ottawa, 2011.

Figure A5.1.8.a1

Trends in Hospitalization for Ambulatory Care Sensitive Conditions (ACSCs) in Winnipeg & Manitoba

Age- & sex-adjusted proportion of hospitalization for ACSCs (per 1,000 residents aged under 75 years), 2000/01–2011/12

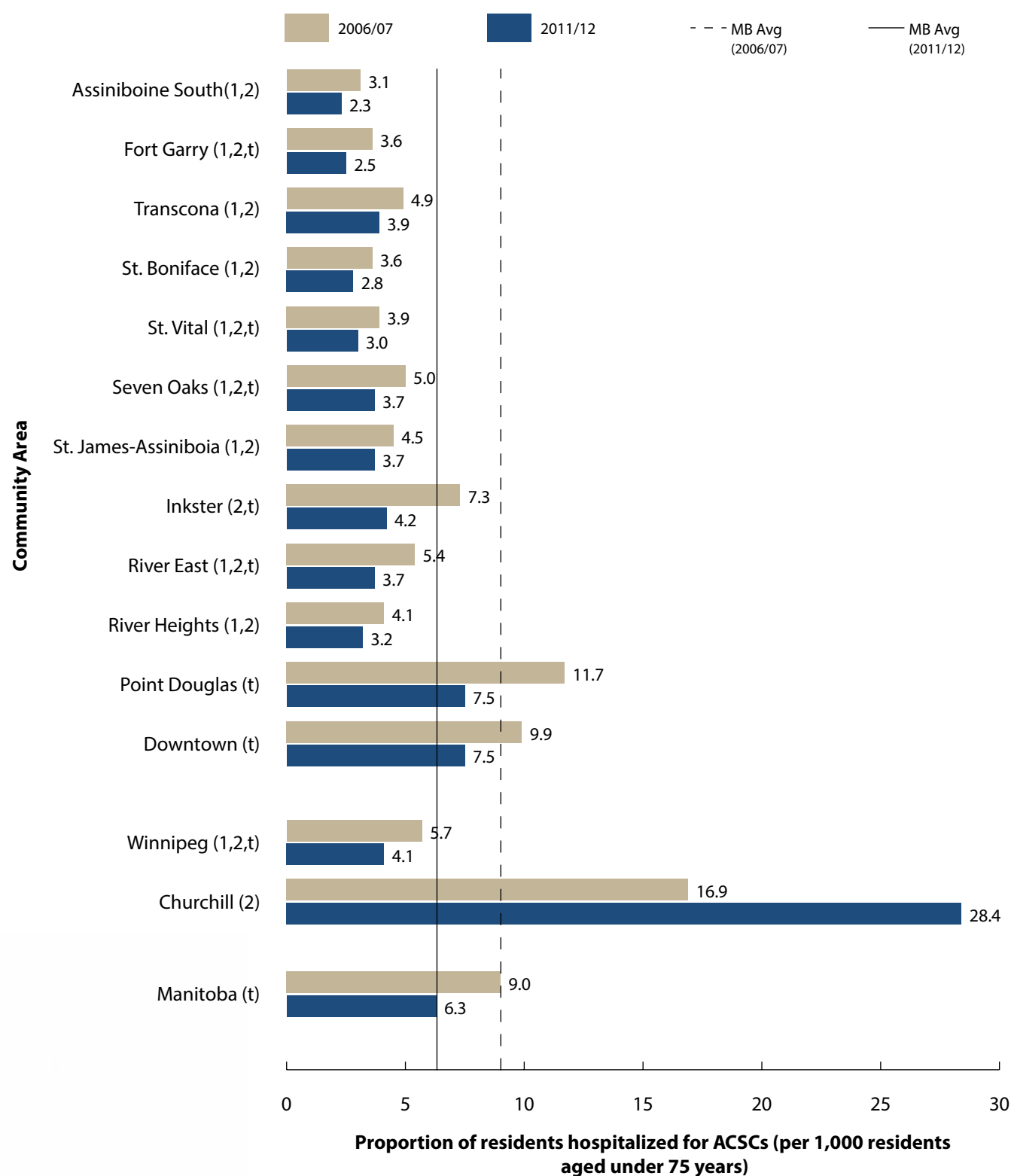


Sources: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.1.8.a2

Hospitalization for Ambulatory Care Sensitive Conditions (ACSCs) by Winnipeg Community Area

Age- & sex-adjusted proportion of hospitalization for ACSCs (per 1,000 residents aged under 75 years), 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

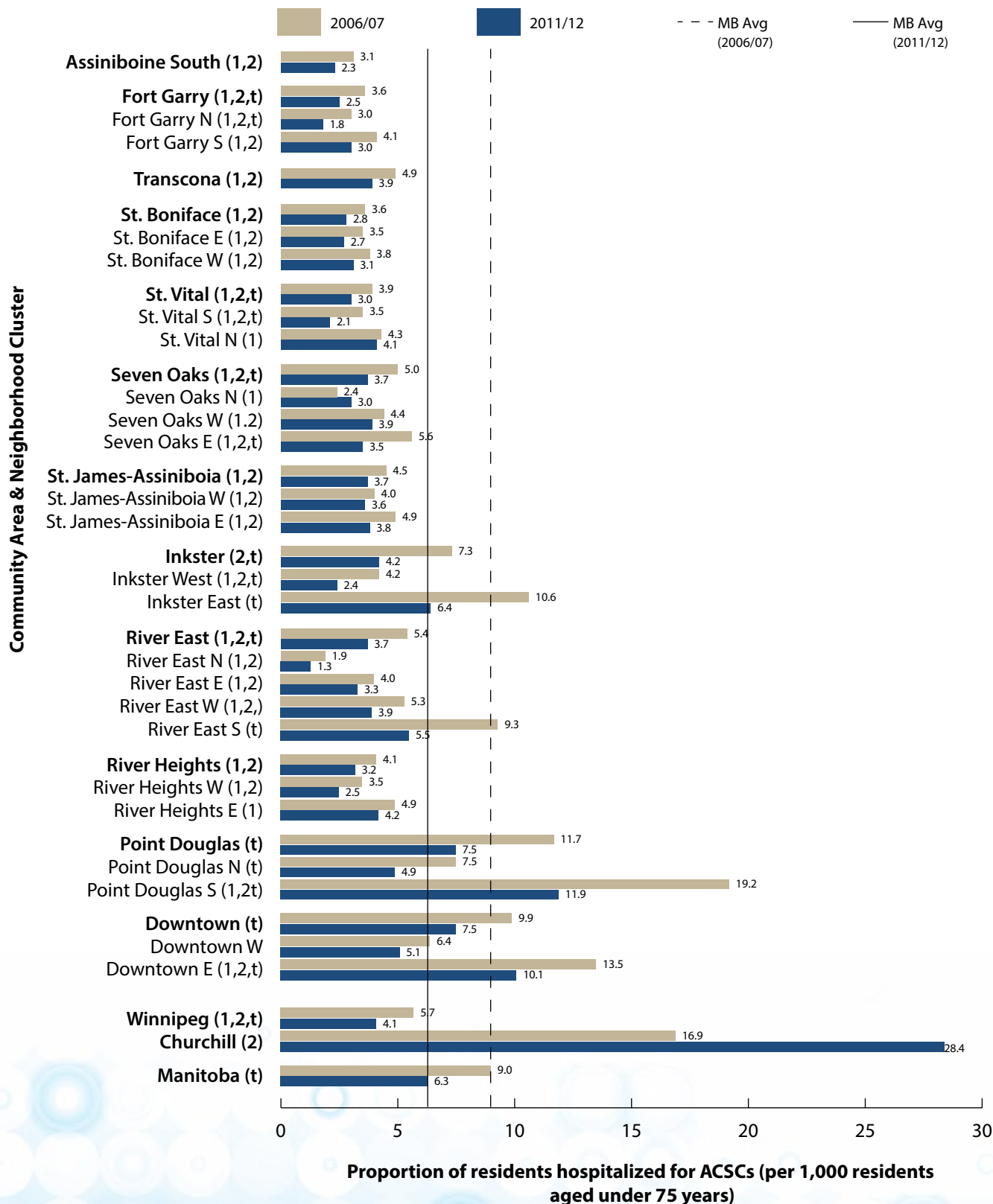
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.8.a3

Hospitalization for Ambulatory Care Sensitive Conditions (ACSCs) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted proportion of hospitalization for ACSCs (per 1,000 residents aged under 75 years), 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

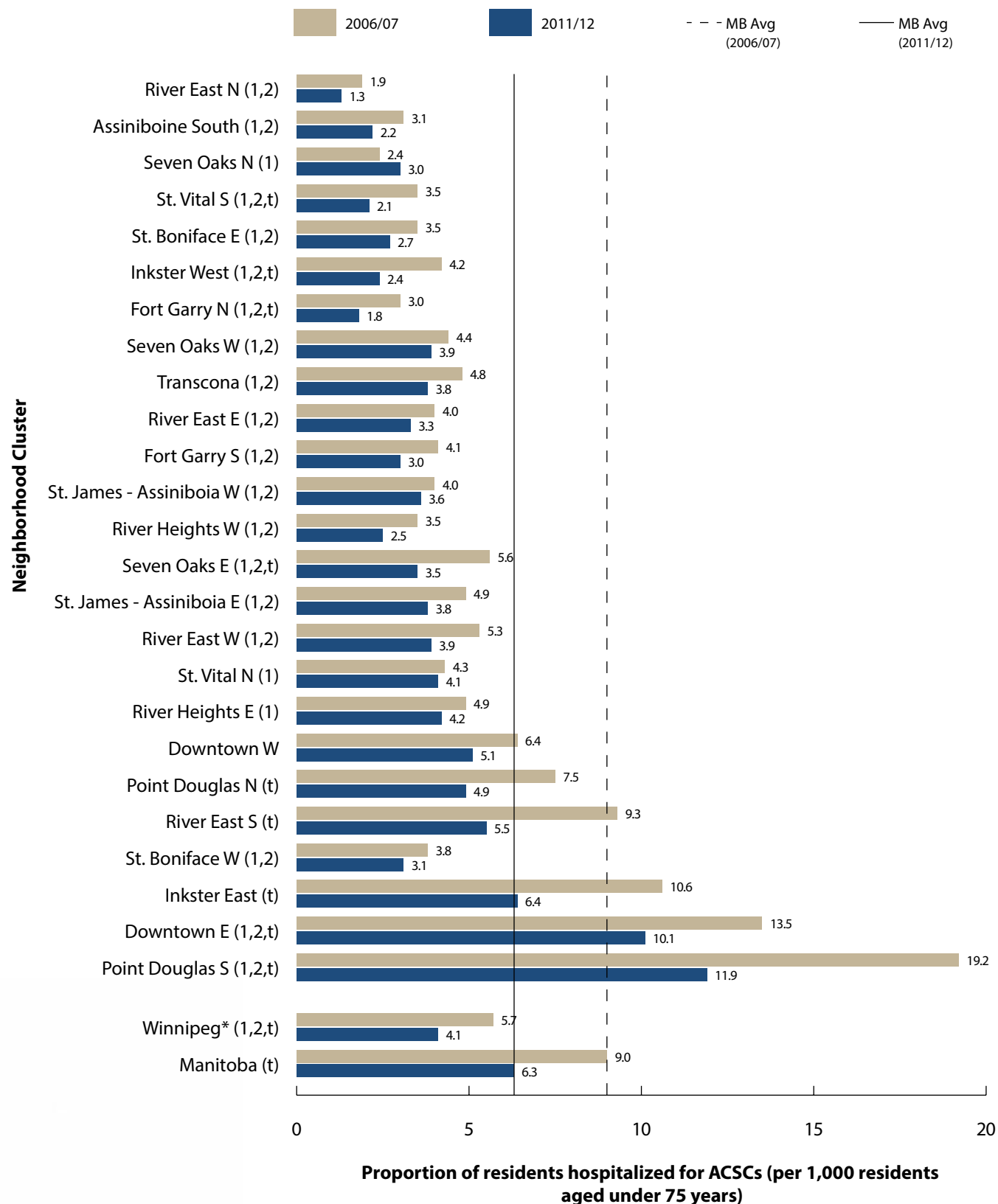
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.1.8.a4

Hospitalization for Ambulatory Care Sensitive Conditions (ACSCs) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted proportion of hospitalization for ACSCs (per 1,000 residents aged under 75 years), 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

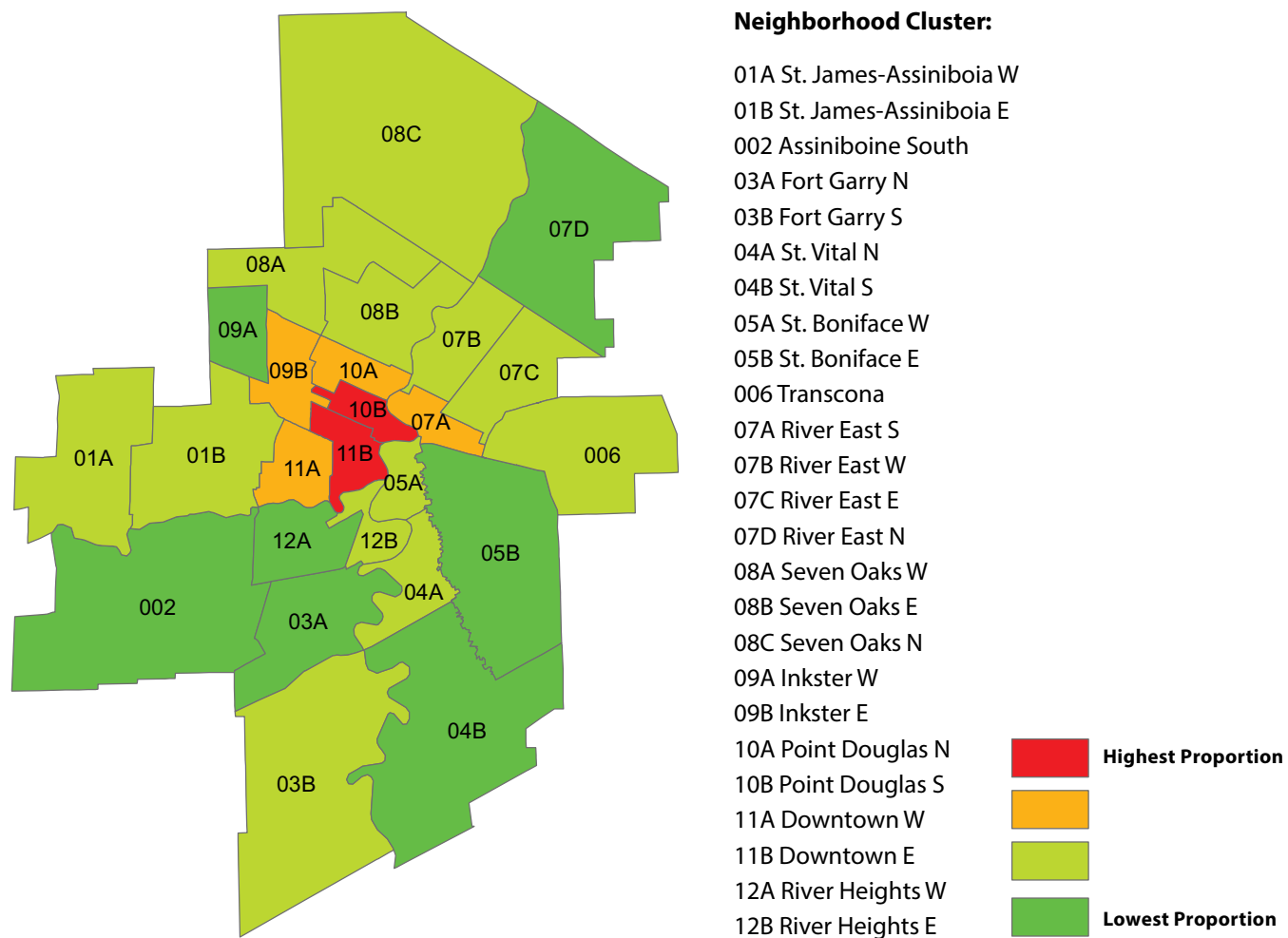
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Hospitalization for Ambulatory Care Sensitive Conditions (ACSCs) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted proportion of hospitalization for ACSCs (per 1,000 residents aged under 75 years), 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A5.1.8.a1

Health Inequality in Hospitalization for Ambulatory Care Sensitive Conditions (per 1,000 residents aged under 75 years), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 # of hospitalizations per 1,000 residents aged under 75 years	2011/12 # of hospitalizations per 1,000 residents aged under 75 years
Hospitalizations for Ambulatory Care Sensitive Conditions by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	1.9	1.3
Lowest income NC (Point Douglas S)	19.2	11.9
Absolute difference (Lowest income NC – Highest income NC)	17.3	10.6
Ratio (Lowest income NC / Highest income NC)	10.11	9.15
Hospitalizations for Ambulatory Care Sensitive Conditions by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	2.5	2.1
U4	3.8	2.6
U3	5.0	3.7
U2	6.3	4.5
Lowest Urban Income Quintile (U1)	11.3	8.3
Absolute difference (U1-U5)	8.8	6.2
Ratio (U1/U5)	4.52	3.95

Source: Manitoba Centre for Health Policy, 2013



Indicator: Inpatient Hospitalizations

DEFINITION: The number of inpatient hospitalizations reported per 1,000 Winnipeg Regional Health Authority (the Region) residents per year. Multiple admissions for the same person in the same year were counted as separate events. All Manitoba hospitals were included; personal care homes (PCHs), nursing stations, and long-term care facilities were excluded (Deer Lodge Centre, Manitoba Adolescent Treatment Centre, Rehabilitation Centre for Children, and Riverview Health Centre). Out-of-province hospitalizations for Manitoba residents were also included. In cases of birth, newborn hospitalizations were excluded but the mother's hospitalization was included.

NUMERATOR: Number of inpatient hospitalizations in a given year.

DENOMINATOR: Number of the Region's residents as of December 31 of the year.

CALCULATION: The age- and sex-adjusted rate of inpatient hospitalizations (where a patient was formally admitted to the hospital for diagnostic, medical or surgical treatment and stayed for one or more days) per 1,000 residents was calculated for fiscal years 2006/07 and 2011/12. Other community areas had lower than the Manitoba average numbers.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2011/12, 65.4 inpatient hospitalizations were reported for every 1,000 residents in the Region—a slight decrease from 73.0 hospitalizations per 1000 of the Region's residents in 2006/07.
- Churchill (152.2 / 200.8), Point Douglas (105.5 / 92.5), and Downtown (94.5 / 85.3) community areas had the highest numbers of inpatient hospitalizations per 1000 residents in 2006/07 and 2011/12.

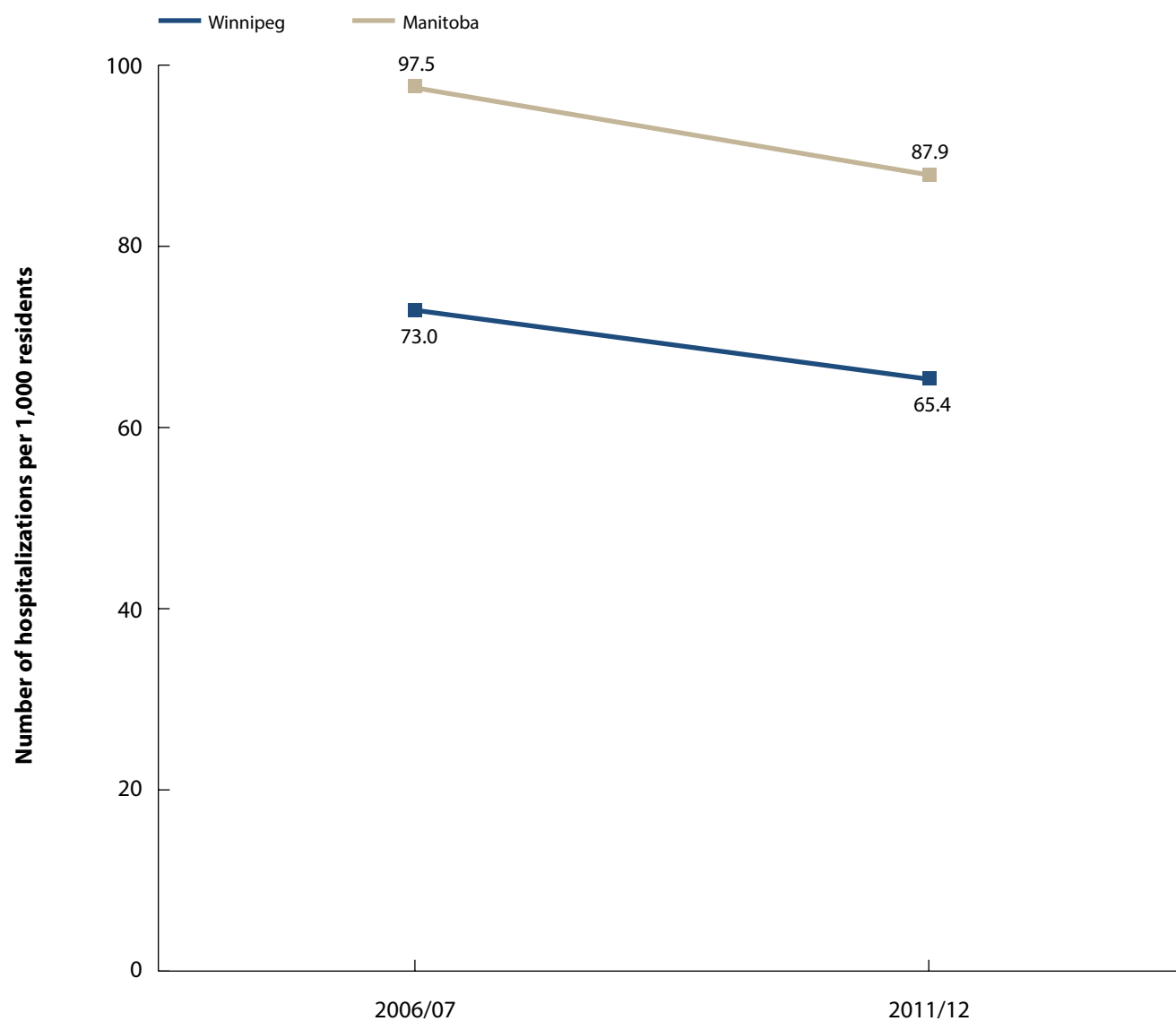
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The inpatient hospitalization rate is an important indicator of access to hospital services. It is impacted by many factors including the demand for hospital services, the capacity of hospitals to treat patients, the ability of the primary care sector to prevent avoidable hospital admissions, and the availability of post-acute care settings to provide rehabilitative and long-term care services.

Figure A5.2.1.a1

Trends in Inpatient Hospitalizations in Winnipeg & Manitoba

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12

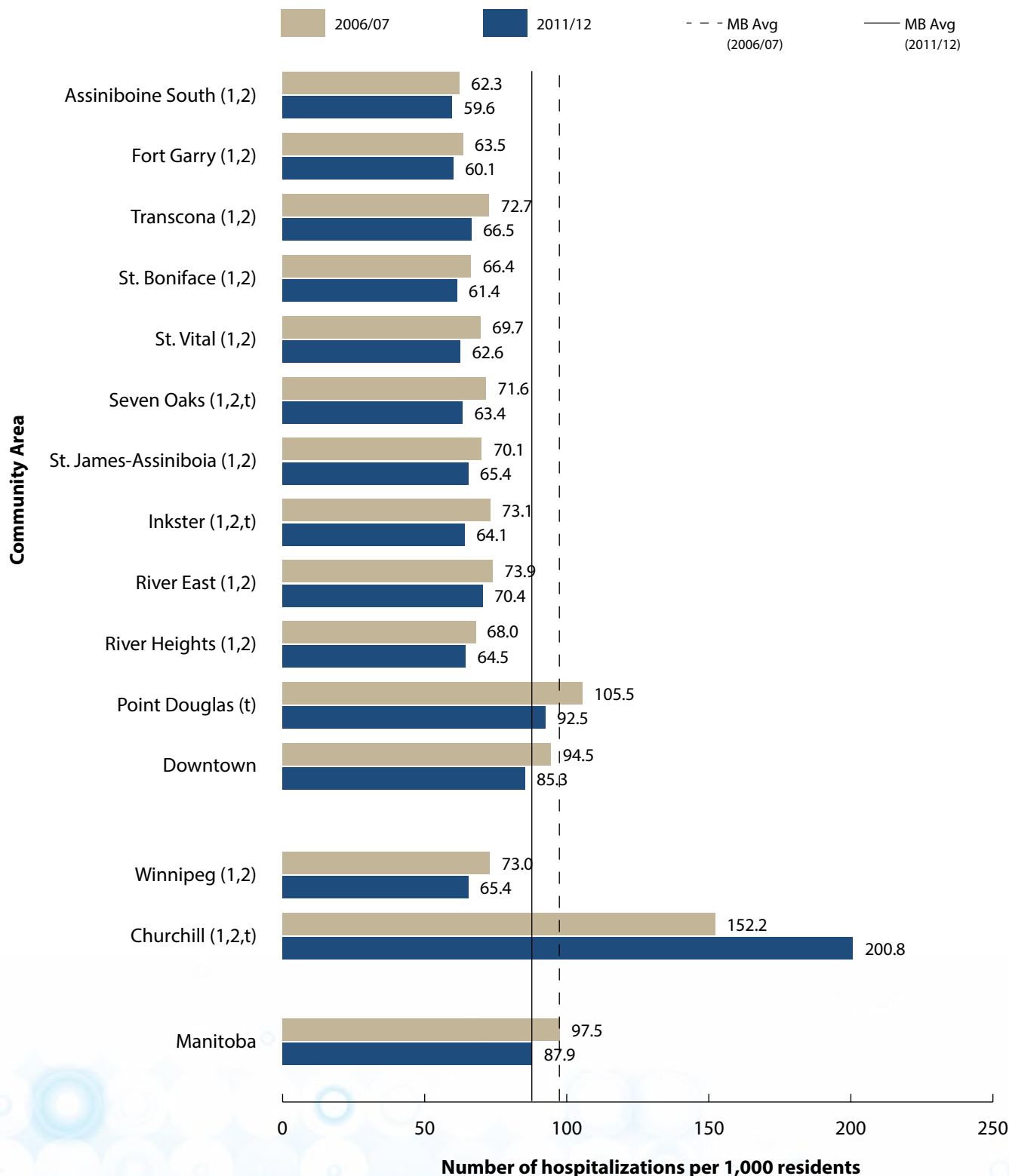


Source: Manitoba Center for Health Policy, 2013

Figure A5.2.1.a2

Inpatient Hospitalizations by Winnipeg Community Area

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

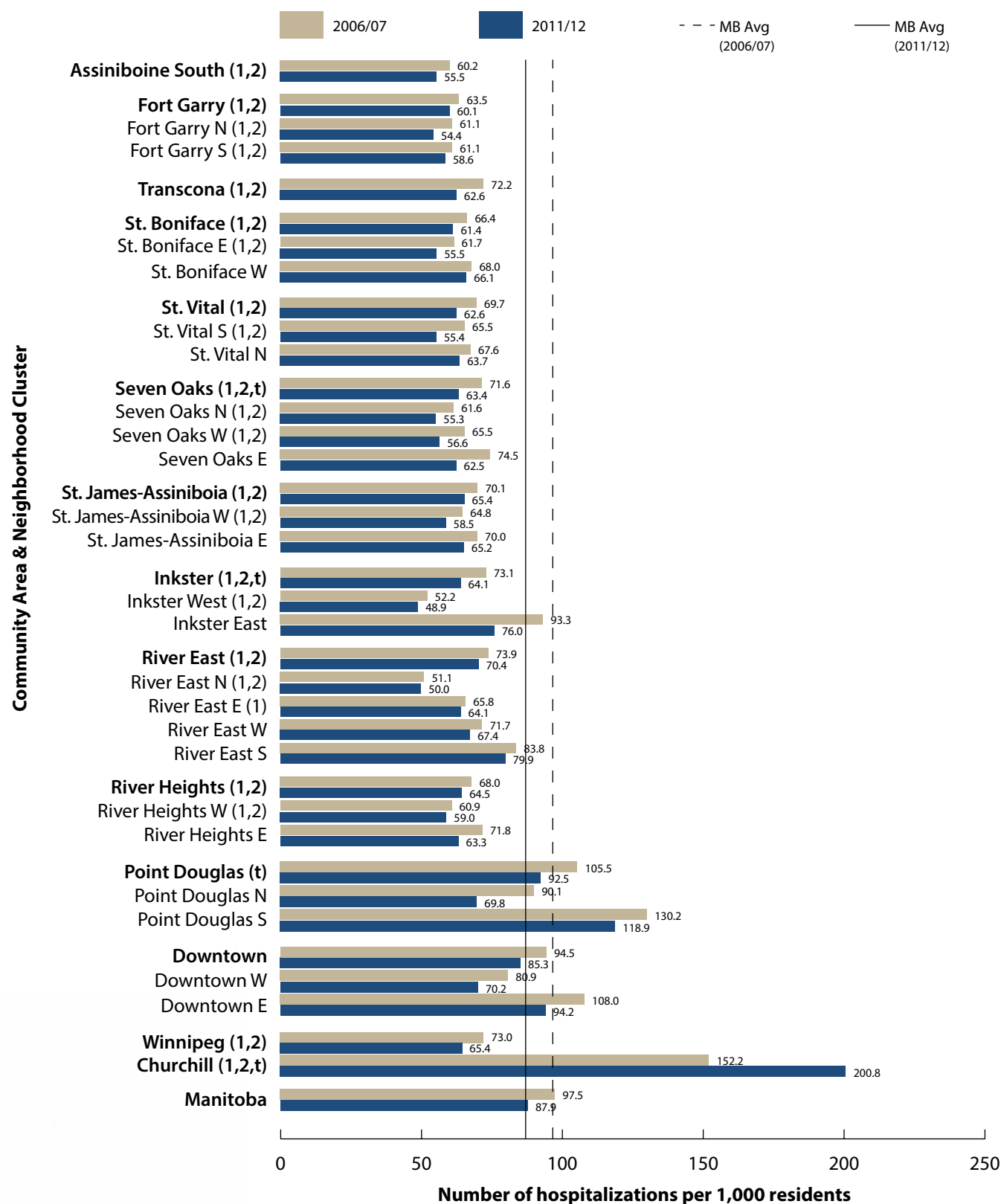
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.1.a3

Inpatient Hospitalizations by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

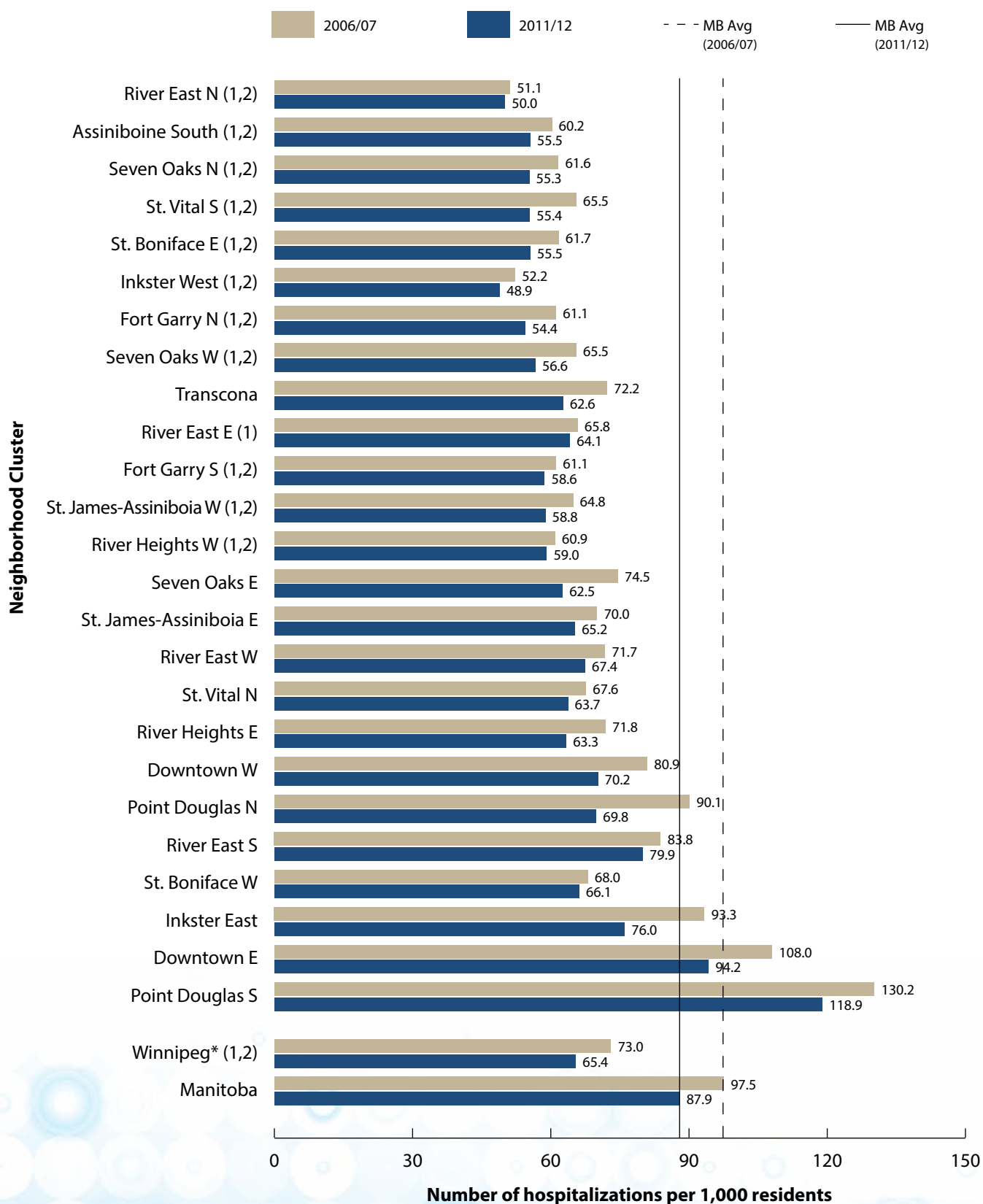
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.1.a4

Inpatient Hospitalizations by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

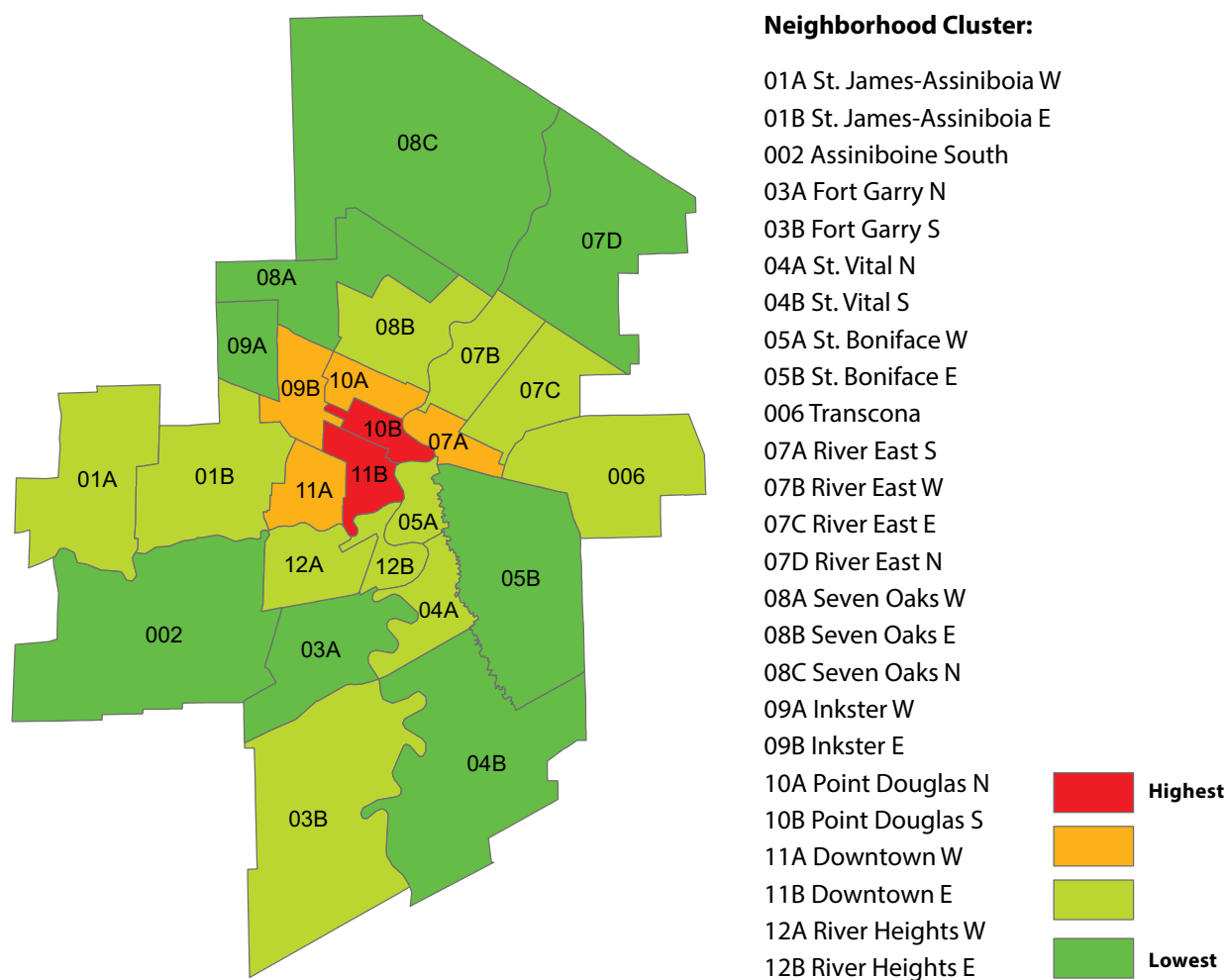
*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Inpatient Hospitalizations by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2011/12



Source: Manitoba Centre for Health Policy, 2013



Indicator: Day Surgery Hospitalizations

DEFINITION: The number of day surgery hospitalizations per 1,000 residents in a given year. Day surgery was defined as surgical services received on an outpatient basis with less than a one day hospital stay. Multiple admissions of the same person within the year were counted as separate events. All Manitoba hospital day surgeries and out-of-province day surgery hospitalizations for Manitoba residents were included; personal care homes (PCHs), nursing stations, and long-term care facilities were excluded (Deer Lodge Centre, Manitoba Adolescent Treatment Centre, Rehabilitation Centre for Children, and Riverview Health Centre). In cases of birth, newborn hospitalizations were excluded but the mother's hospitalization was included.

NUMERATOR: Number of day surgeries for Winnipeg Regional Health Authority (the Region) residents in a given year.

DENOMINATOR: Number of the Region's residents as of December 31 of the year.

CALCULATION: The age- and sex-adjusted rate of day surgery hospitalizations per 1,000 of the Region's residents was calculated for fiscal years 2006/07 and 2011/12, using Manitoba population as the standard population.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2011/12, 65.3 day surgeries were performed for every 1,000 of the Region's residents. The number of day surgeries in the Region has been relatively stable.
- Churchill residents had the highest number of day surgeries (79.1 per 1,000 residents in 2006/07 and 109.3 per 1,000 residents in 2011/12). In 2011/12, the numbers in the community areas of Downtown (61.6) and Inkster (59.8) were statistically different (less) than the Manitoba average. There was little variation across the communities, with the exception of Churchill.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

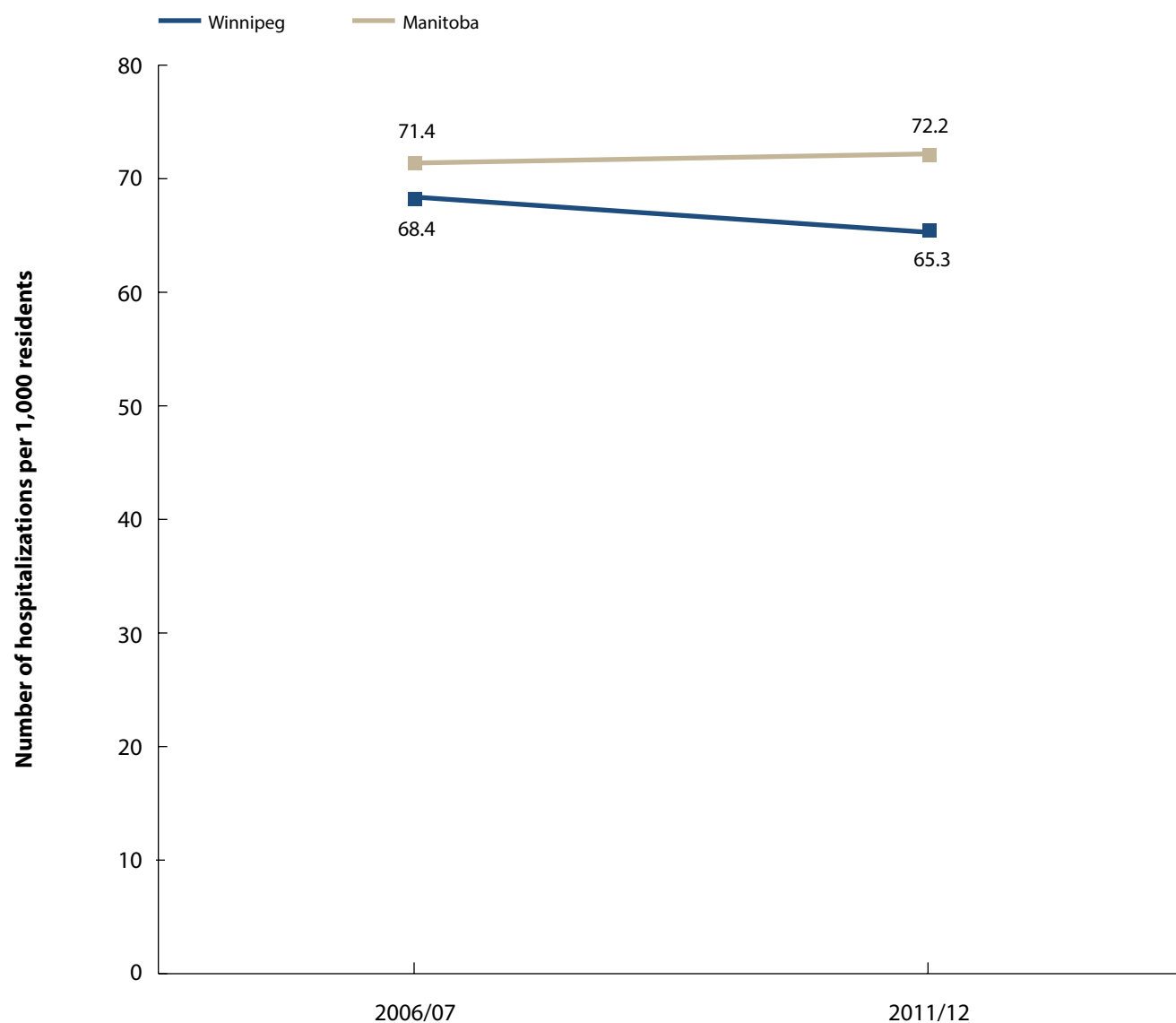
- Day surgery is increasingly being considered the norm for all patients undergoing elective surgery and accounts for 90% of all surgeries performed in Canada and the United States.¹

¹ Carlo Castoro, Luigi Bertinato, Ugo Baccaglini, Christina A. Drace, Martin McKee. Policy Brief—Day Surgery: Make it Happen. WHO, 2007.

Figure A5.2.2.a1

Trends in Day Surgery Hospitalizations in Winnipeg & Manitoba

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07–2011/12

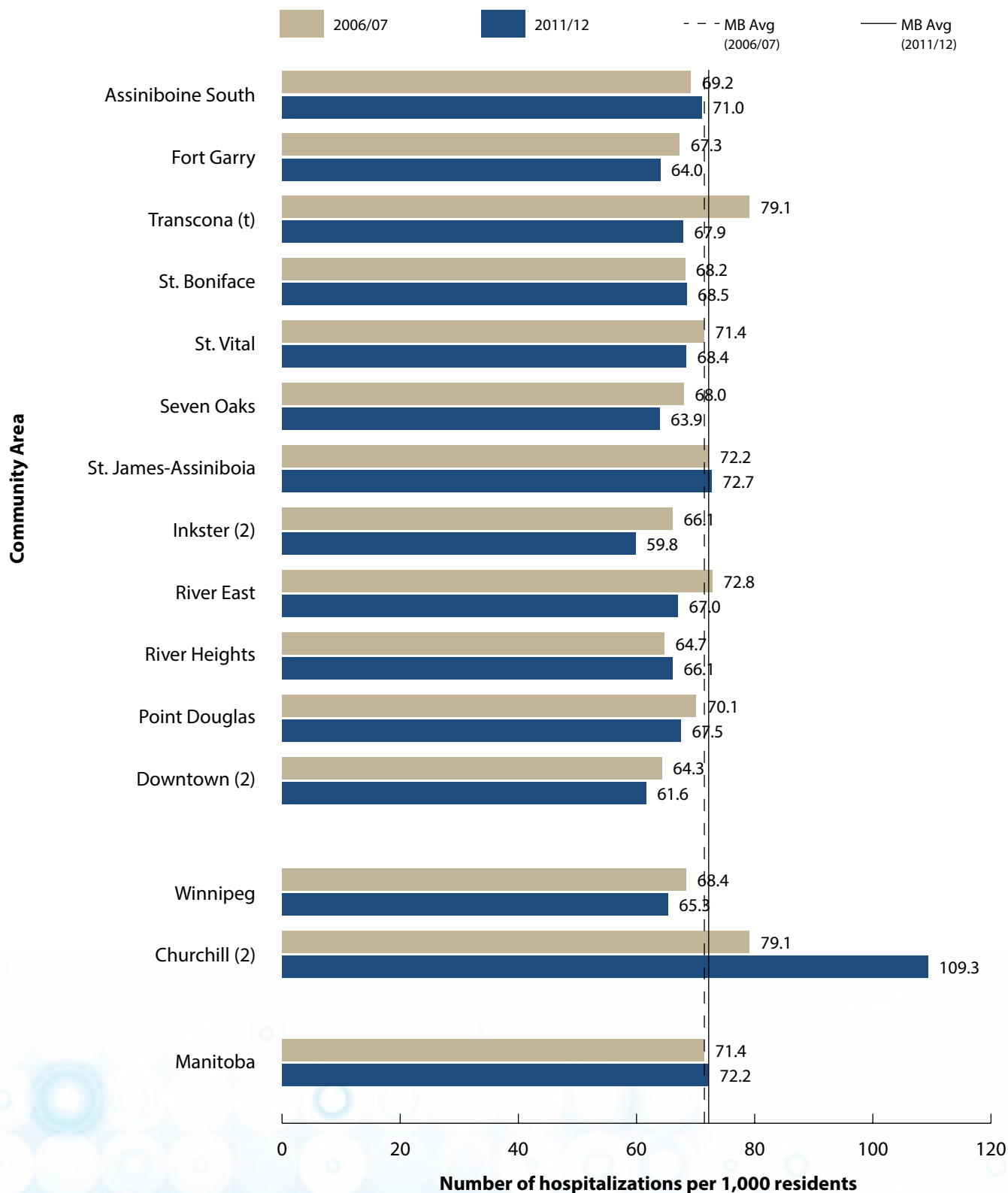


Source: Manitoba Center for Health Policy, 2013

Figure A5.2.2.a2

Day Surgery Hospitalizations by Winnipeg Community Area

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

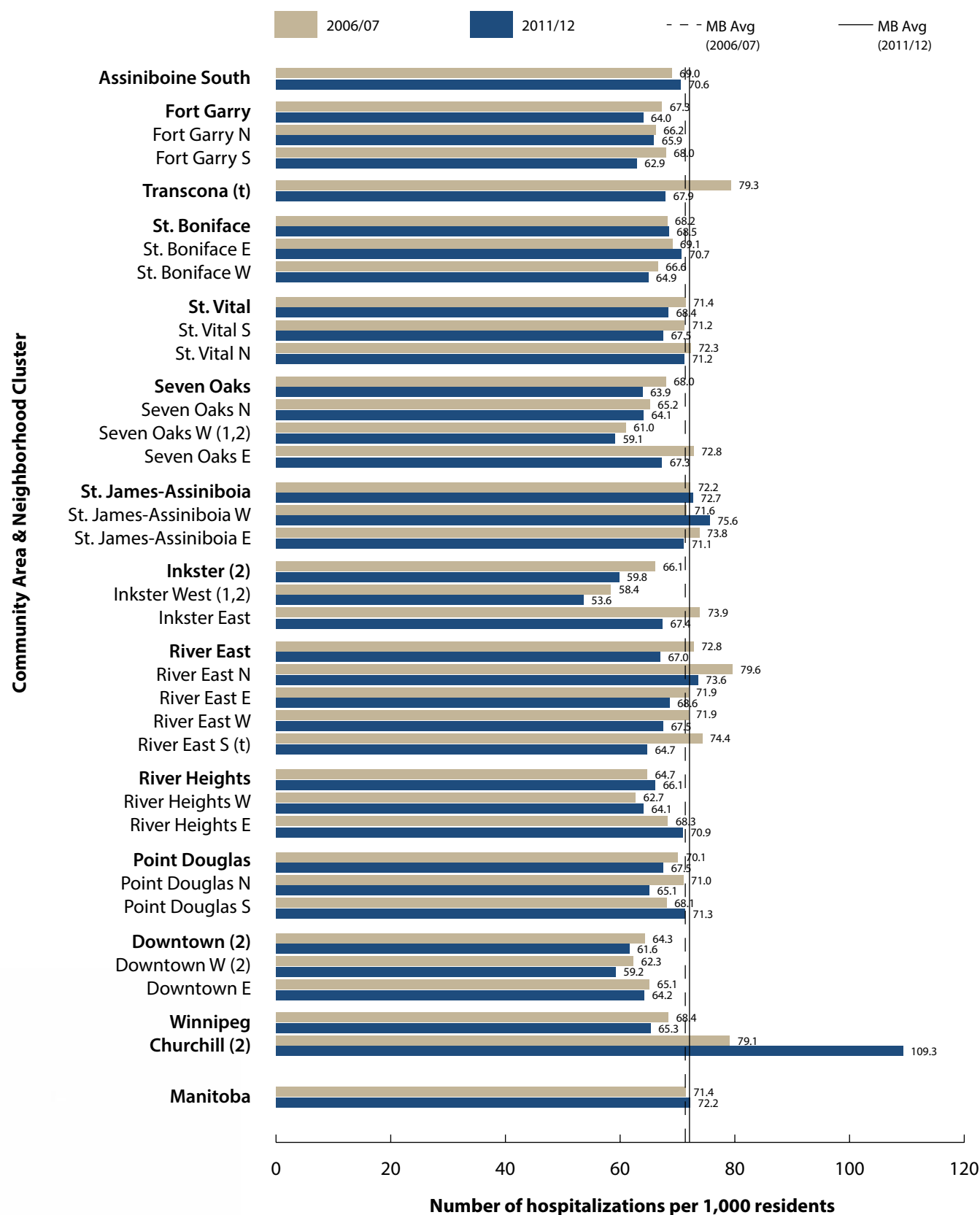
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.2.a3

Day Surgery Hospitalizations by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

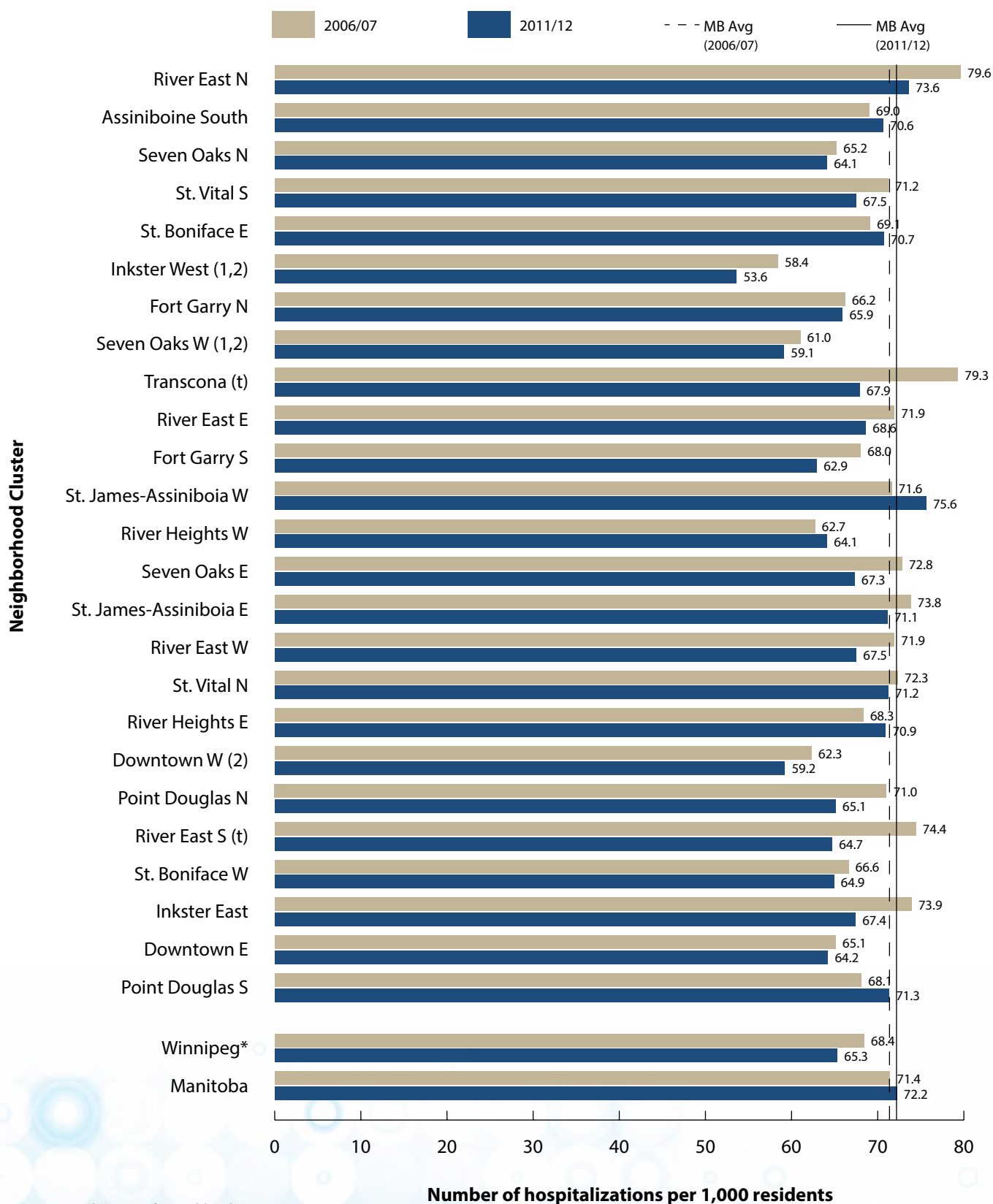
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.2.a4

Day Surgery Hospitalizations by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospitalizations per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant



Indicator: Hospital Location–Where residents went to be hospitalized

DEFINITION: The percentage of all hospitalizations of residents of each regional health authority (RHA) that occurred in a hospital within their (home) RHA, another RHA, in the Winnipeg Regional Health Authority (the Region), or out-of-province. If a patient is transferred between hospitals, each stay is counted as a separate event and is attributed to the appropriate location. Area residence was assigned based on the patient's postal code provided in the hospital abstract at the time of hospitalization. Only hospitalizations attributed to Manitoba residents were counted.

NUMERATOR: Number of Manitoba residents hospitalized in their home RHA, another RHA, in Winnipeg, or out-of-province.

DENOMINATOR: Number of Manitoba residents hospitalized.

CALCULATION: Crude percentages were calculated for 2006/07 and 2011/12.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- When the Region's residents were hospitalized, virtually all of them were hospitalized in Winnipeg hospitals.
- 17.0% and 17.9% of Manitobans were hospitalized in Winnipeg in 2006/07 and 2011/12, respectively.

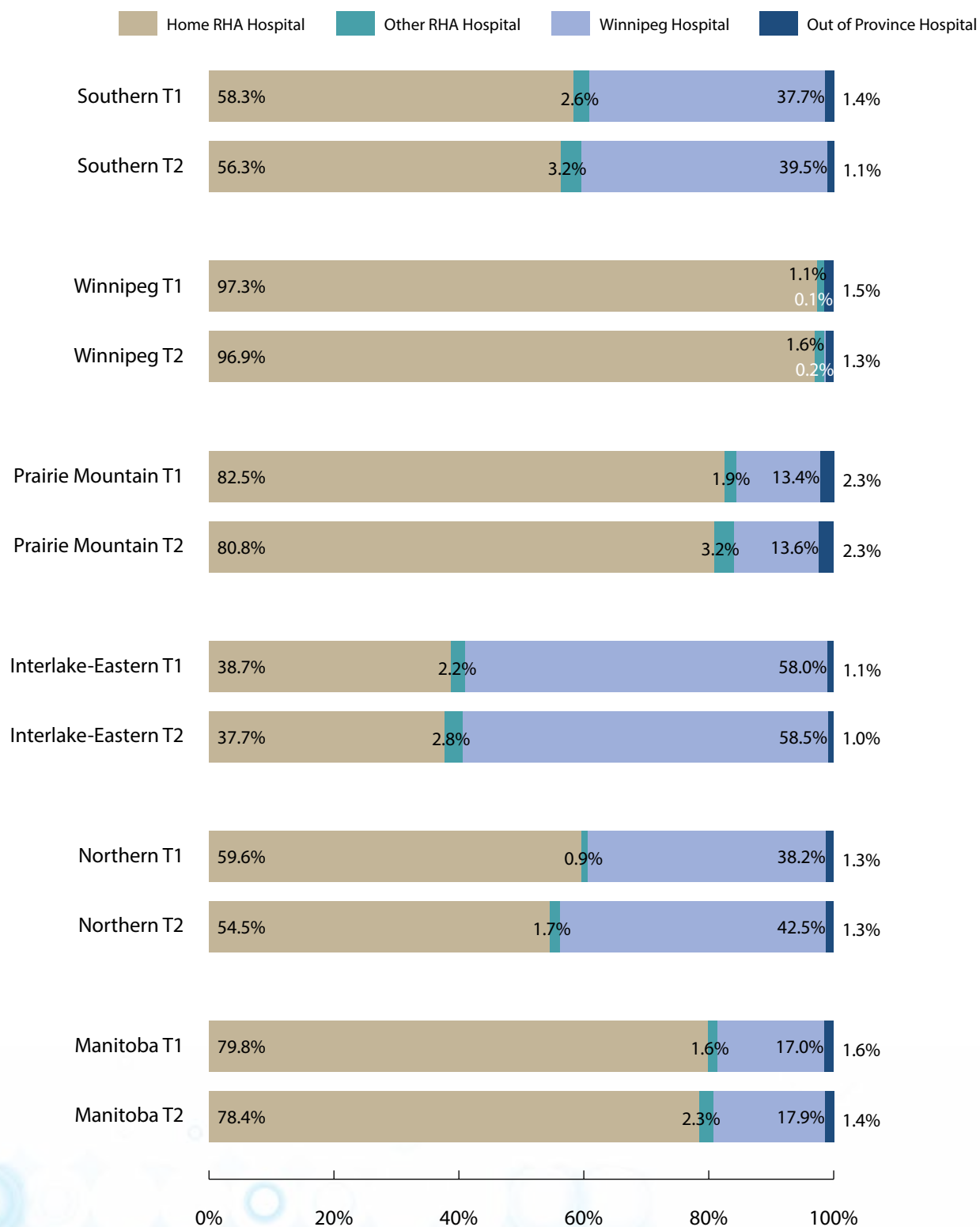
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This indicator provides information for healthcare resource planning.

Figure A5.2.3.a1

Hospital Location: Where RHA Patients Went for Hospitalizations

T = 2006/07 & T2 = 2011/12



Percent of patients who went for hospitalization to various locations

Source: Manitoba Center for Health Policy, 2013



Indicator: Hospital Catchment - Where hospitalized patients came from

DEFINITION: The percentage of all hospitalizations in hospitals in each regional health authority (RHA) that were provided to residents of the (home) RHA, other RHA, Winnipeg Regional Health Authority (the Region), or out-of-province. If a patient is transferred between hospitals, each stay is counted as a separate event and attributed to the appropriate catchment area. Area residence was assigned based on the patient's postal code provided in the hospital abstract at the time of hospitalization. Only hospitalizations attributed to Manitoba residents were counted.

NUMERATOR: Number of hospitalized patients who came from their home RHA, another RHA, Winnipeg, or out-of-province.

DENOMINATOR: Number of Manitoba residents hospitalized in the respective RHA.

CALCULATION: Crude percentages were calculated for 2006/07 and 2011/12.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2011/12, 26.1% of patients hospitalized in the Region's hospitals came from other RHAs and 5.6% were non-Manitoban; this is similar (6.2%) to the distribution in the previous time period (2006/07).

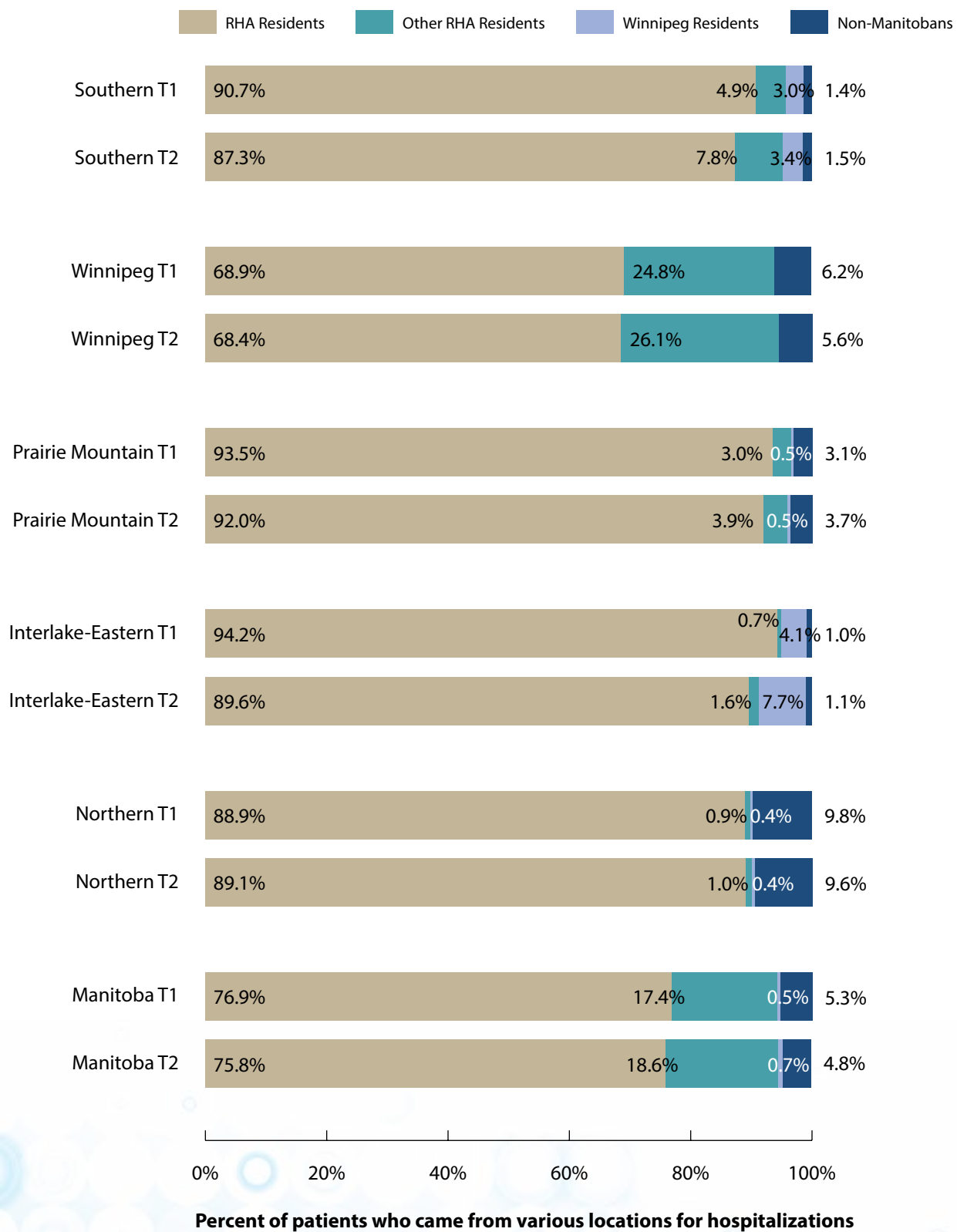
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This indicator provides information for healthcare resource planning.

Figure A5.2.4.a1

Hospital Catchment: Where RHA Hospital Patients Came From for Hospitalizations

T= 2006/07 & T2 = 2011/12



Source: Manitoba Center for Health Policy, 2013



Indicator: Days Used in Short Stay Hospitalizations (0-13 days)

DEFINITION: The number of hospital days used in short stays (under 14 days) per 1,000 residents per year. If the resident had more than one short stay hospitalization in the period, then the days used in all short stay hospitalizations were summed. The total length (in days) of each hospital stay is counted, taking into account all transfers to prevent double counting of days spent in the hospital. All Manitoba hospitals and out-of-province hospitalizations for Manitoba residents were included. In cases of birth, the mother's hospitalization was included but the newborn hospitalizations were excluded. The calculation also excluded personal care homes (PCHs), nursing stations, and long-term care facilities (Deer Lodge Centre, Manitoba Adolescent Treatment Centre, Rehabilitation Centre for Children, and Riverview Health Centre).

NUMERATOR: Number of inpatient hospitalizations lasting one day to 13 days in a given year.

DENOMINATOR: Number of residents as of December 31 of the given year.

CALCULATION: The number of short stay hospital days were age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The number of days used in short stays decreased from 270 (2000/01) to 199 (2011/12) days per 1,000 Winnipeg Regional Health Authority (the Region) residents per year and was consistently lower than the provincial average.
- Churchill had the highest days for short stays in hospital: 462 days per 1,000 residents in 2006/07 and 480 per 1,000 residents in 2011/12.
- In the Region, Downtown (258 short stay days per 1,000 residents) and Point Douglas (272 short stay days per 1,000 residents) community areas (CA) had higher than average numbers of days for short stays (not statistically significant from the Manitoba average). St. Boniface (184 short stay days per 1,000 residents), St. Vital and River Heights (both CAs had 195 short stay days per 1,000 residents), had significantly lower days per 1,000 residents than the Manitoba average in 2006/07.
- Days used in short stay hospitalizations were strongly related to income in both time periods: the number of days used for a short stay hospitalization by lowest income neighborhood cluster (NC) residents (Point Douglas S) was 2.56 times more than those used by the highest income NC residents (River East North); and, short stay days used among residents in the lowest income quintile were 1.70 times of those in the highest income quintile.

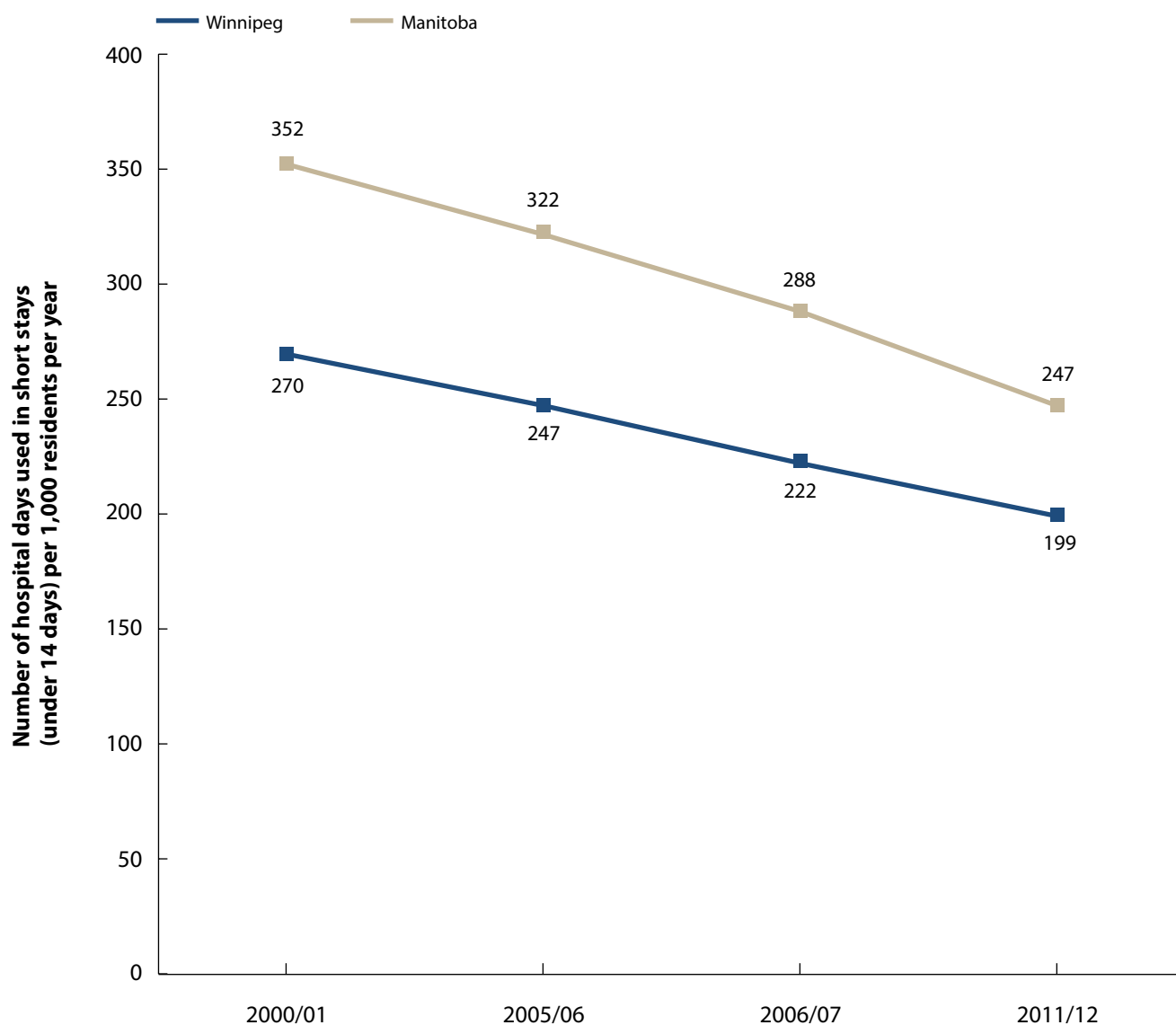
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Short stay hospitalization has been defined differently in previous reports (i.e., length of stay from 1 to 29 days), therefore, caution is needed when making comparisons.

Figure A5.2.5.a1

Trends in Days Used in Short Stay Hospitalizations (0-13 days) in Winnipeg & Manitoba

Age- & sex-adjusted number of hospital days used in stays of less than 14 days per 1,000 residents, 2000/01–2011/12

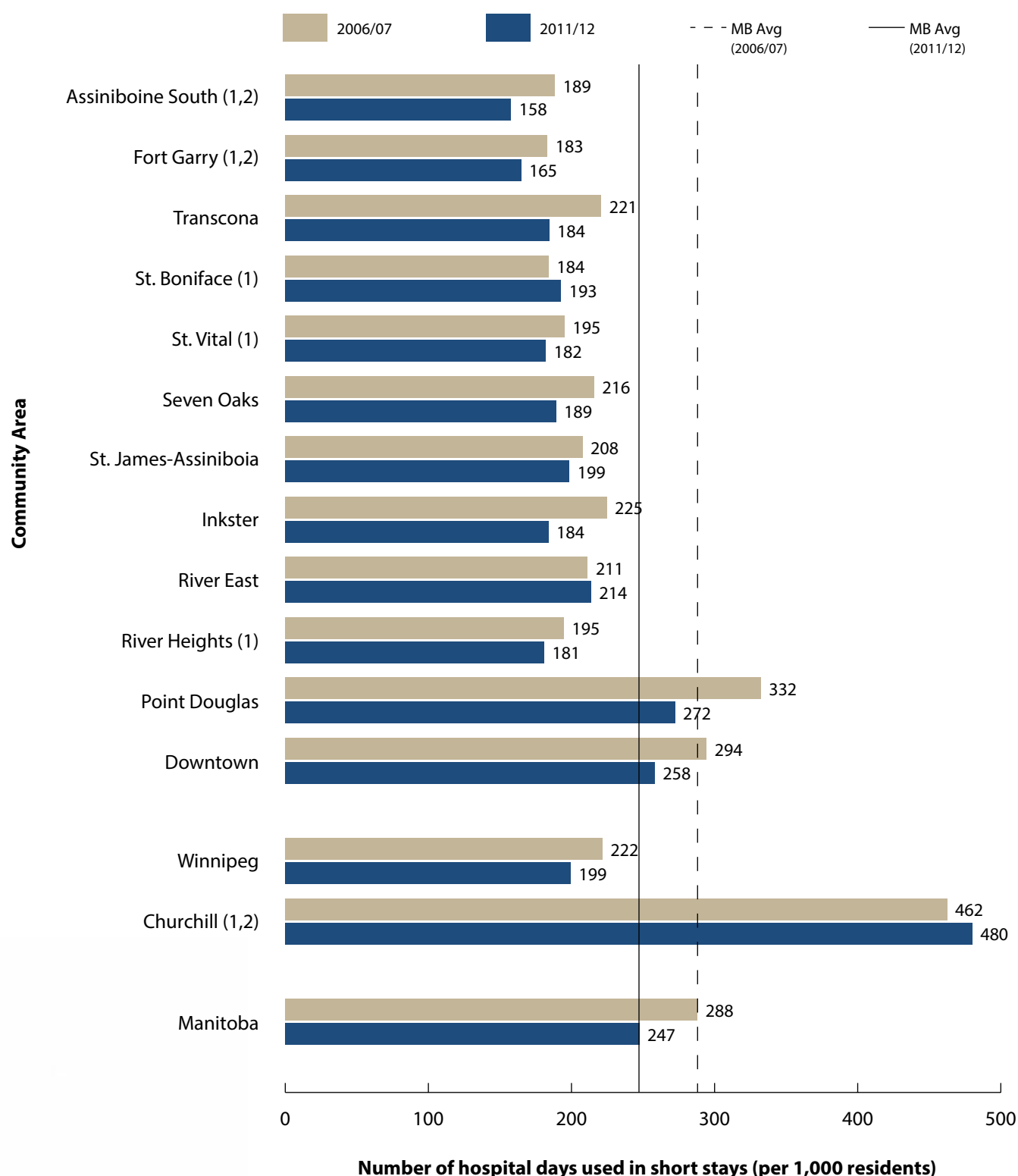


Sources: Manitoba Center for Health Policy, 2009 & 2013

Figure A5.2.5.a2

Days Used in Short Stay Hospitalizations (0-13 days) by Winnipeg Community Area

Age- & sex-adjusted number of hospital days used in stays of less than 14 days per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

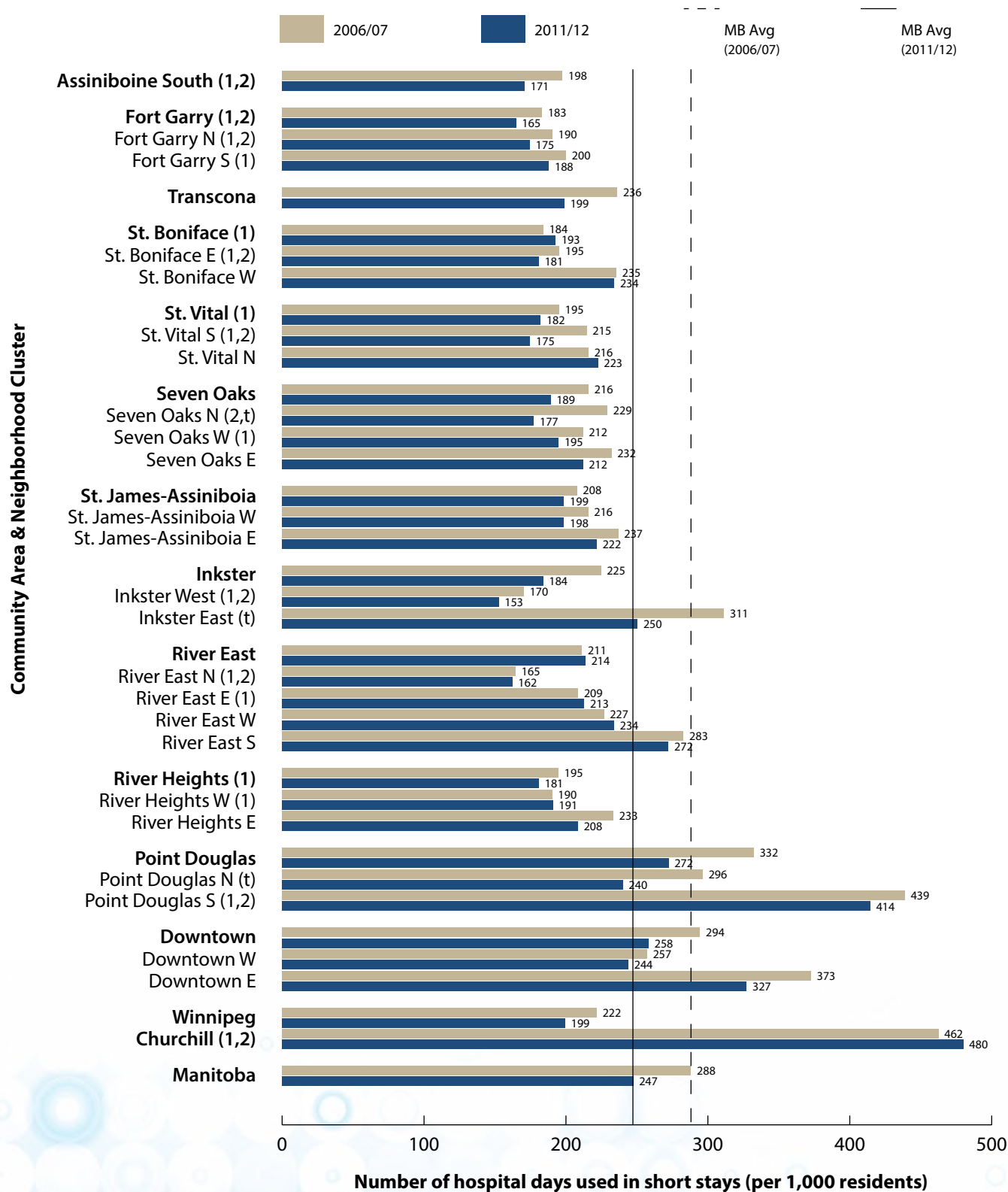
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Figure A5.2.5.a3

Days Used in Short Stay Hospitalizations (0-13 days) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted number of hospital days used in stays of less than 14 days per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

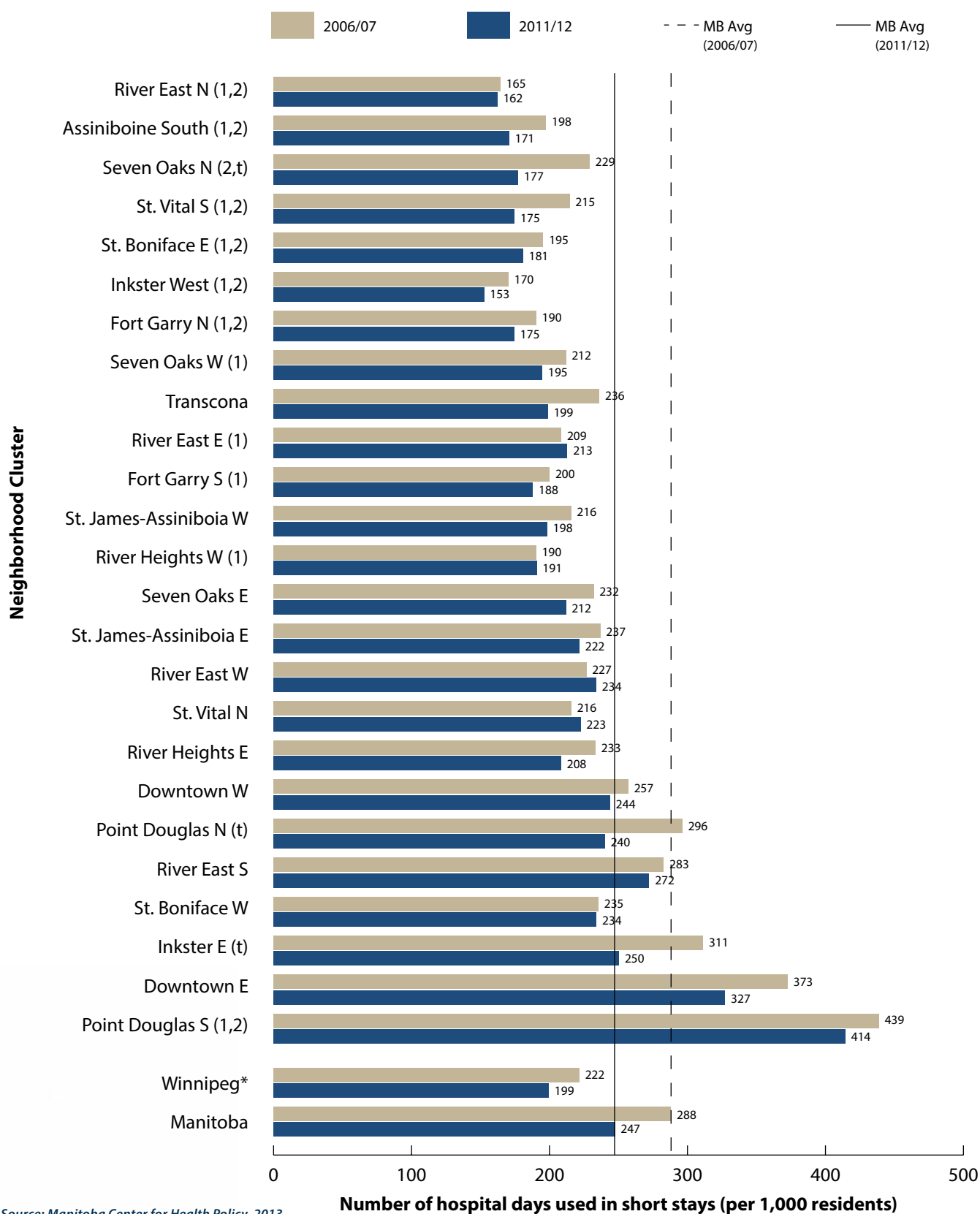
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.5.a4

Days Used in Short Stay Hospitalizations (0-13 days) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospital days used in stays of less than 14 days per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

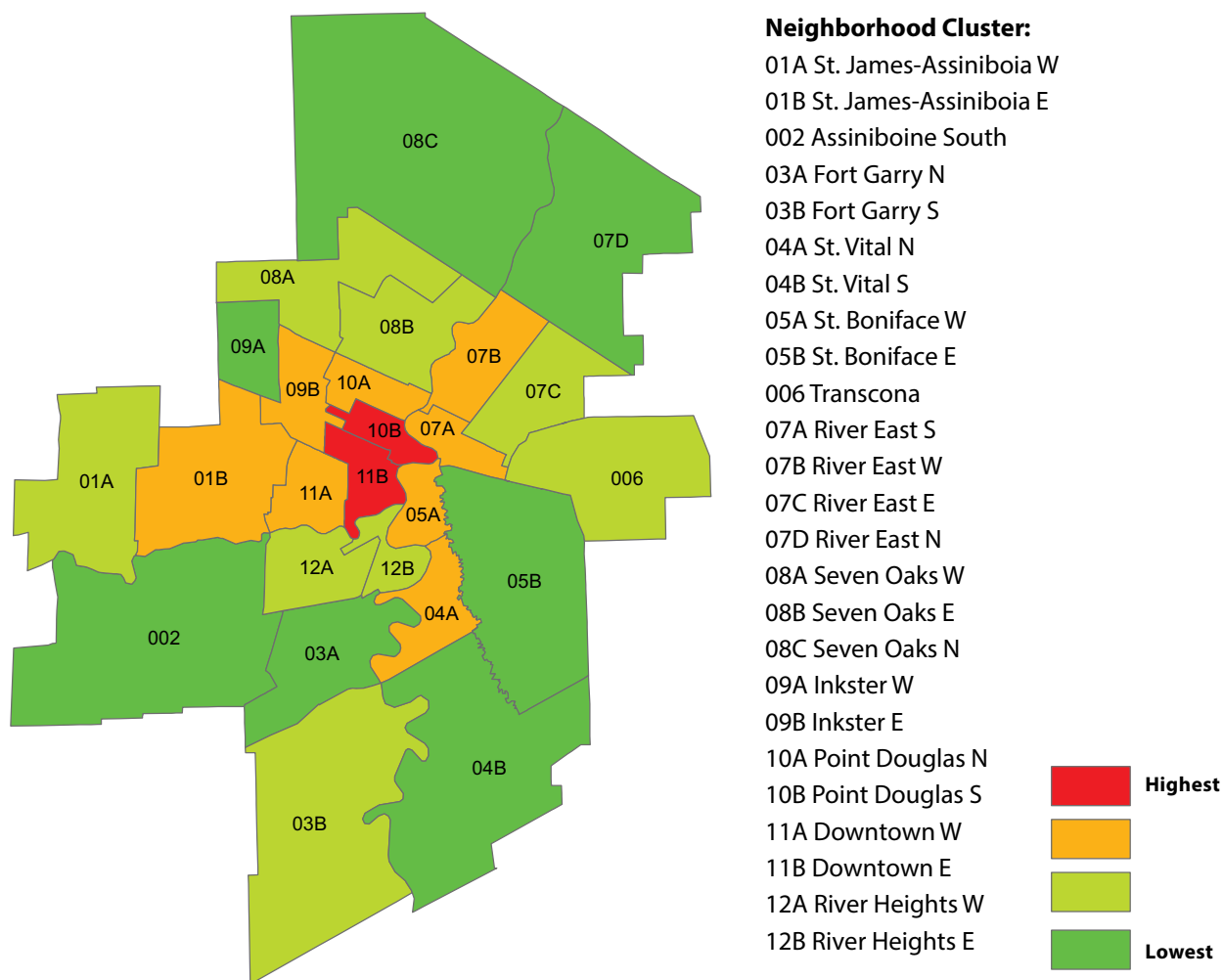
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Days Used in Short Stay Hospitalizations (0-13 days) by Winnipeg Neighborhood Cluster

Age- and sex-adjusted number of hospital days used in stays of less than 14 days per 1,000 residents, 2011/12



Source: Manitoba Center for Health Policy, 2013

Table A5.2.5.a1

Health Inequality in Days Used in Short Stay Hospitalizations (0-13 days), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 # of hospital days used in short stays (< 14 days) per 1,000 residents per year	2011/12 # of hospital days used in short stays (< 14 days) per 1,000 residents per year
Hospital Days Used in Short Days by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	165	162
Lowest income NC (Point Douglas S)	439	414
Absolute difference (Lowest income NC – Highest income NC)	274	252
Ratio (Lowest income NC / Highest income NC)	2.66	2.56
Hospital Days Used in Short Days by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	169	159
U4	184	177
U3	218	185
U2	234	216
Lowest Urban Income Quintile (U1)	315	271
Absolute difference (U1-U5)	146	112
Ratio (U1/U5)	1.86	1.70

Source: Manitoba Centre for Health Policy, 2013



Indicator: Days Used in Long Stay Hospitalizations (14-365 days)

DEFINITION: The number of hospital days used in long stays (14 to 365 days) per 1,000 residents per year. If a resident had more than one long stay hospitalization in the period, the days used in all long hospitalization stays were summed. The total length (in days) of each hospital stay is counted, taking into account all transfers to prevent double counting of days spent in the hospital. For hospital episodes lasting longer than one year, the length of stay was truncated to maximum 365 days to remove influential outliers. Each hospitalization was limited to 365 days as the maximum length of stay. All Manitoba hospitals and out-of-province hospitalizations for Manitoba residents were included. In cases of birth, the mother's hospitalization was included but the newborn hospitalizations were excluded. The calculation also excluded personal care homes (PCHs), nursing stations, and long-term care facilities (Deer Lodge Centre, Manitoba Adolescent Treatment Centre, Rehabilitation Centre for Children, and Riverview Health Centre).

NUMERATOR: Number of long stay hospital days (14 to 365 days) in a given year.

DENOMINATOR: Number of residents as of December 31 of the year.

CALCULATION: The number of long stay hospital days were adjusted for age- and sex-adjusted to the Manitoba population in the first time period (i.e., 2006/07 Manitoba population as the standard population for 2006/07 and 2011/12; 2000/01 Manitoba population as the standard population for 2000/01 and 2005/06).

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The number of days used in long stays decreased from 661 days per 1,000 of the Winnipeg Regional Health Authority (the Region) residents in 2000/01 to 477 per 1,000 of the Region's residents in 2011/12 and, the difference between periods was not statistically significant.
- Residents living in central areas of Winnipeg (e.g., Point Douglas and Downtown community areas) were more likely to have prolonged hospital stays: Point Douglas and Downtown consistently had higher than the Winnipeg average for long stay hospital days.
- Days used in long stay hospitalizations were related to income for both time periods: (a) The number of hospital days used in long stay hospitalizations among residents of the lowest income neighborhood cluster (NC) (Point Douglas S) was about five times higher than that for the highest income NC (River East North) in 2011/12; (a) The number of hospital days used in long stay hospitalizations among residents in the lowest income quintile was about 3 times higher than that for those living in the highest income quintile in 2011/12.

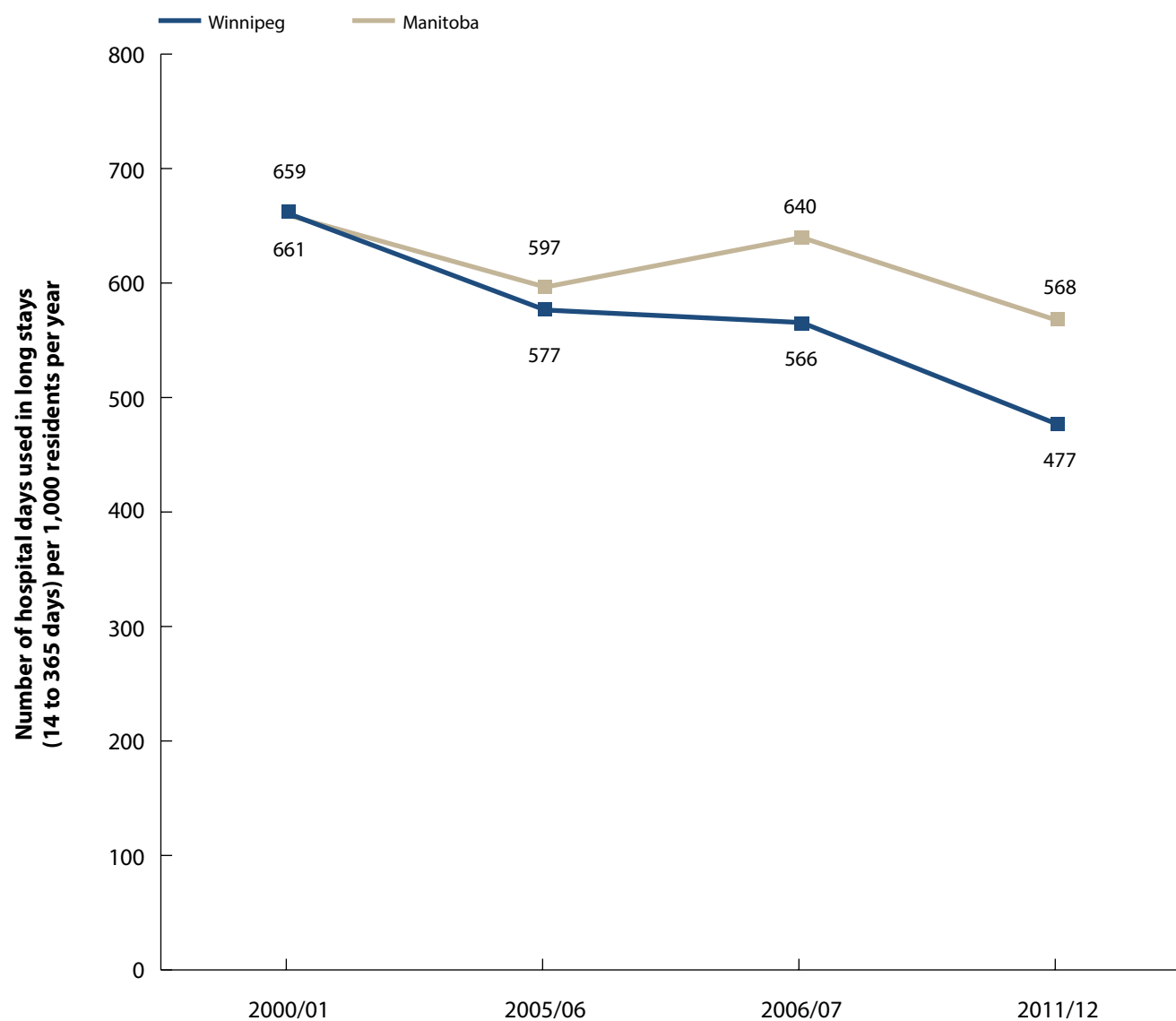
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Long stay hospitalization has been defined differently in previous reports (i.e., length of stay 30 days or more), therefore, caution is needed when making comparisons.

Figure A5.2.6.a1

Trends in Days Used in Long Stay Hospitalizations (14-365 days) in Winnipeg & Manitoba

Age- & sex-adjusted number of hospital days used in long stays per 1,000 residents, 2000/01–2011/12

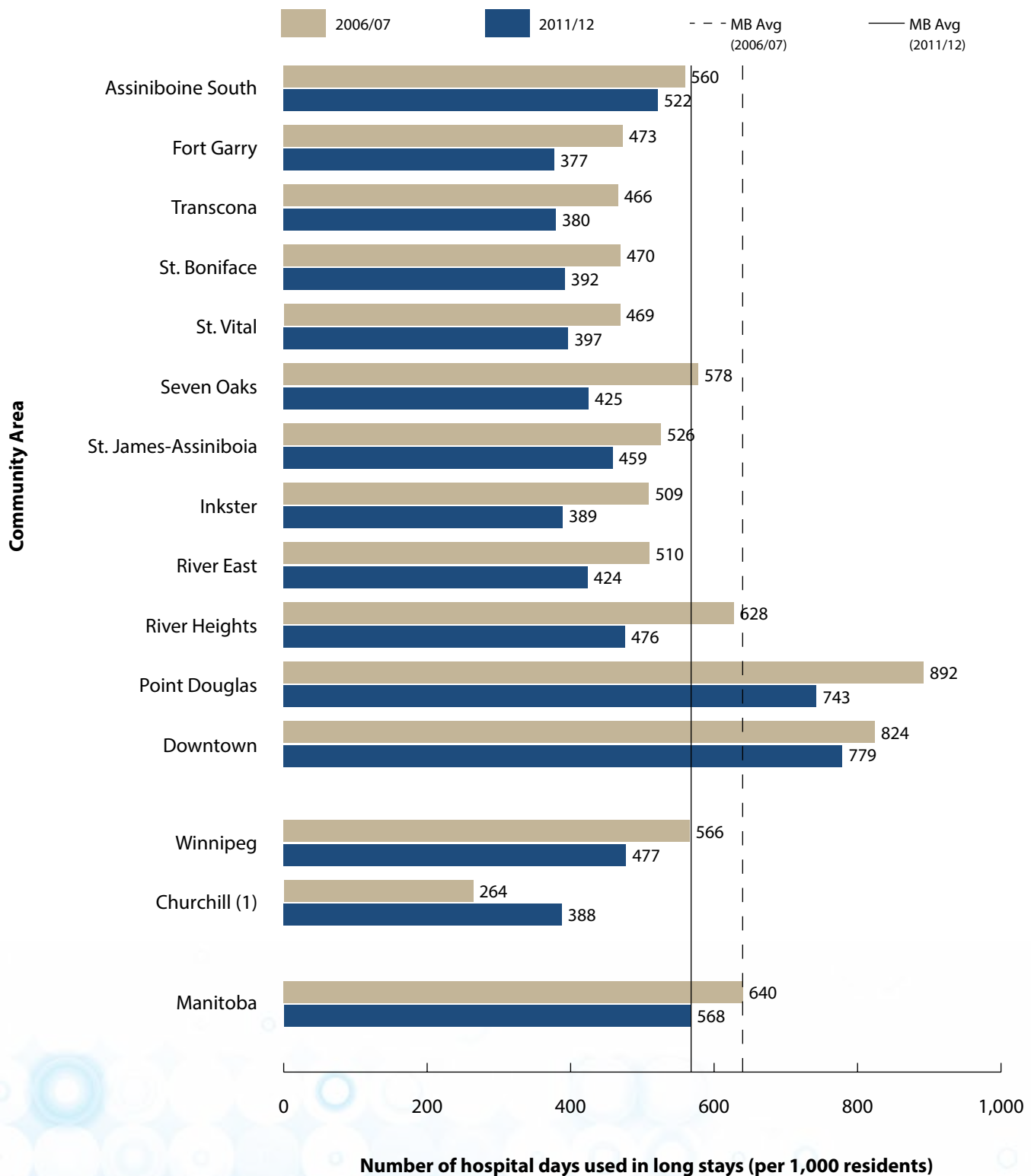


Sources: Manitoba Center for Health Policy, 2009 & 2013

Figure A5.2.6.a2

Days Used in Long Stay Hospitalizations (14-365 days) by Winnipeg Community Area

Age- & sex-adjusted number of hospital days used in long stays per 1,000 residents, 2006/07 & 2011/12



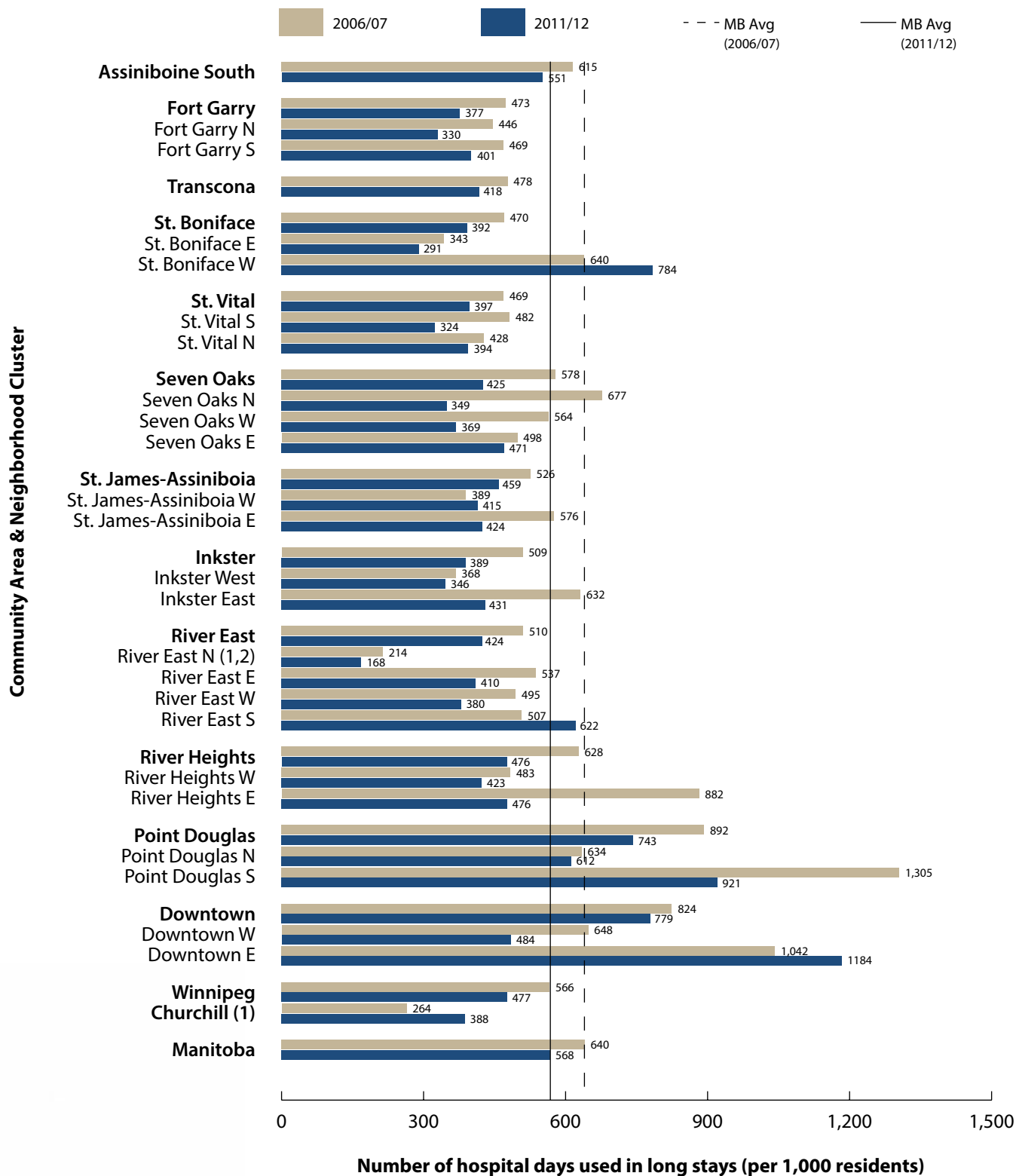
Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

Figure A5.2.6.a3

Days Used in Long Stay Hospitalizations (14-365 days) by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted number of hospital days used in long stays per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

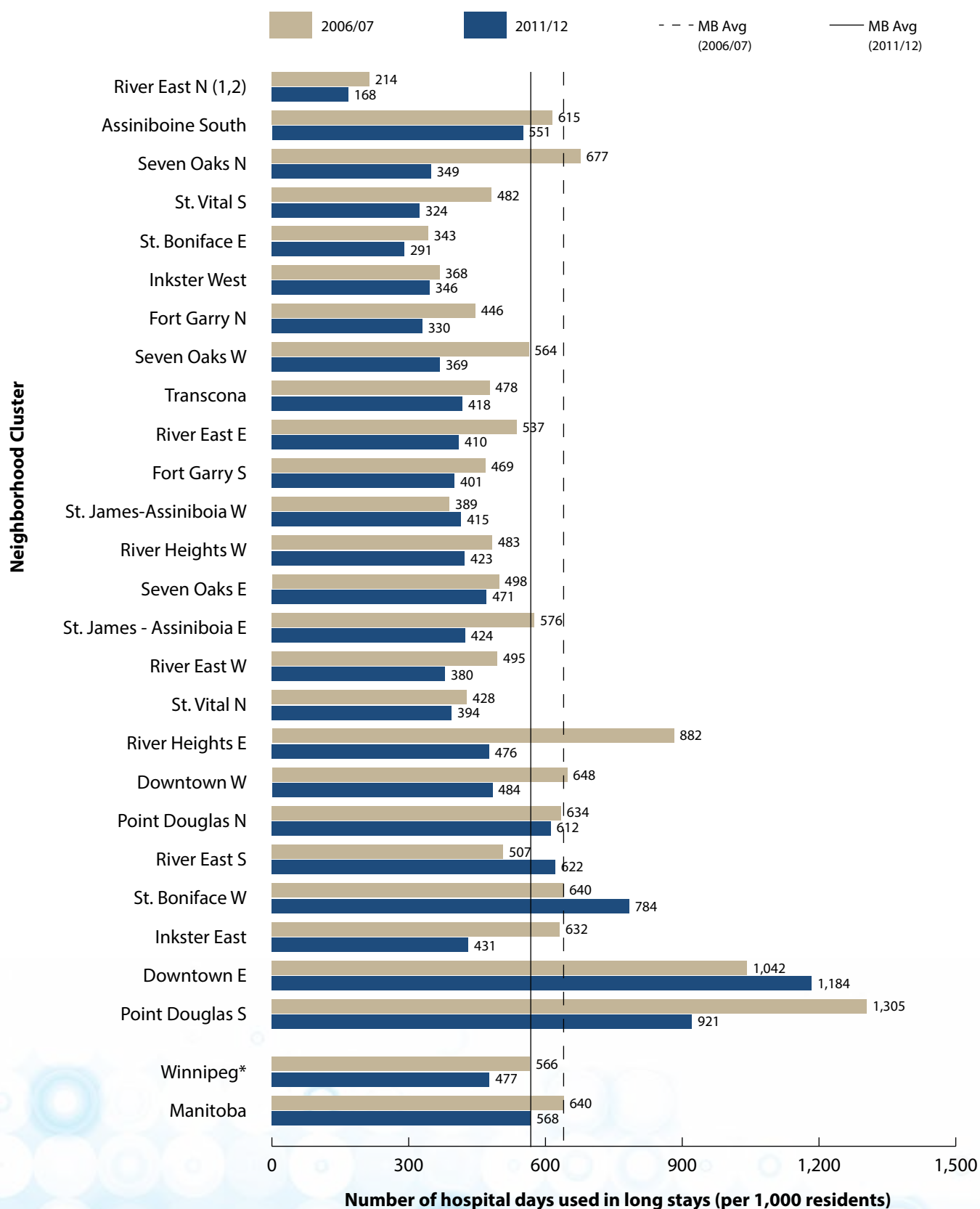
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Figure A5.2.6.a4

Days Used in Long Stay Hospitalizations (14-365 days) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospital days used in long stays per 1,000 residents, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

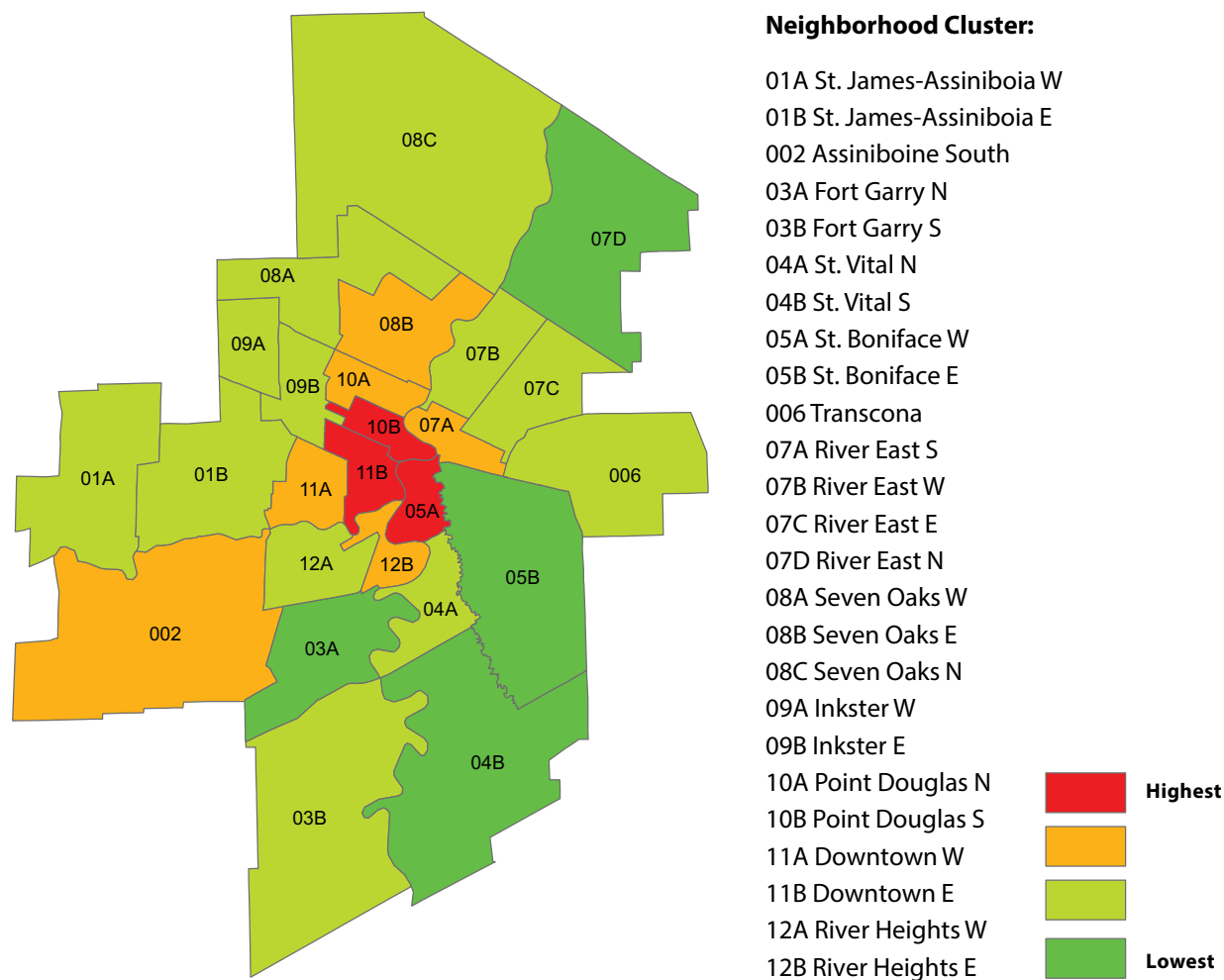
*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

Days Used in Long Stay Hospitalizations (14-365 days) by Winnipeg Neighborhood Cluster

Age- & sex-adjusted number of hospital days used in long stays per 1,000 residents, 2011/12



Source: Manitoba Center for Health Policy, 2013

Table A5.2.6.a1

Health Inequality in Hospital Days Used in Long Stay Hospitalizations (14-365 days), by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 # of hospital days used in long stays (14-365 days) per 1,000 residents per year	2011/12 # of hospital days used in long stays (14-365 days) per 1,000 residents per year
Hospital Days Used in Long Stays by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	214	168
Lowest income NC (Point Douglas S)	1,305	921
Absolute difference (Lowest income NC – Highest income NC)	1,091	753
Ratio (Lowest income NC / Highest income NC)	6.10	5.48
Hospital Days Used in Long Stays by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	348	249
U4	443	408
U3	462	365
U2	556	511
Lowest Urban Income Quintile (U1)	930	742
Absolute difference (U1-U5)	582	493
Ratio (U1/U5)	2.67	2.98

Source: Manitoba Centre for Health Policy, 2013



Indicator: Hospital Discharges by Reason (Reason for Hospitalization)

DEFINITION: Each hospital abstract for a person's admission and subsequent discharge has a "most responsible" diagnosis listed. The "most responsible" diagnosis is the most significant condition contributing to a patient's stay in a given hospital. The most frequent reasons for inpatient hospitalizations and day surgeries are reported.

NUMERATOR: Number of hospitalizations for certain diagnoses ("most responsible").

DENOMINATOR: Number of total hospitalizations in the Winnipeg Regional Health Authority (the Region) in a given year.

CALCULATION: Annual crude proportions of the most frequent reasons for hospitalization were calculated for two fiscal years 2006/07 and 2011/12.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- The most frequent reasons for hospitalization have not changed significantly over time. Within the Region, digestive disease was the most common reason for hospitalization, followed by pregnancy and birth, circulatory disease, cancer, and health status and contact with health services.¹

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- The distribution of leading reasons for hospitalization varies by population characteristics such as age and sex.
- To calculate this indicator, the "most responsible" diagnosis has to be established for each case and diagnoses are grouped to create a diagnosis category. There may be differences in ways of defining this indicator and caution is needed when comparing to the distribution of reasons for hospitalization in other reports.

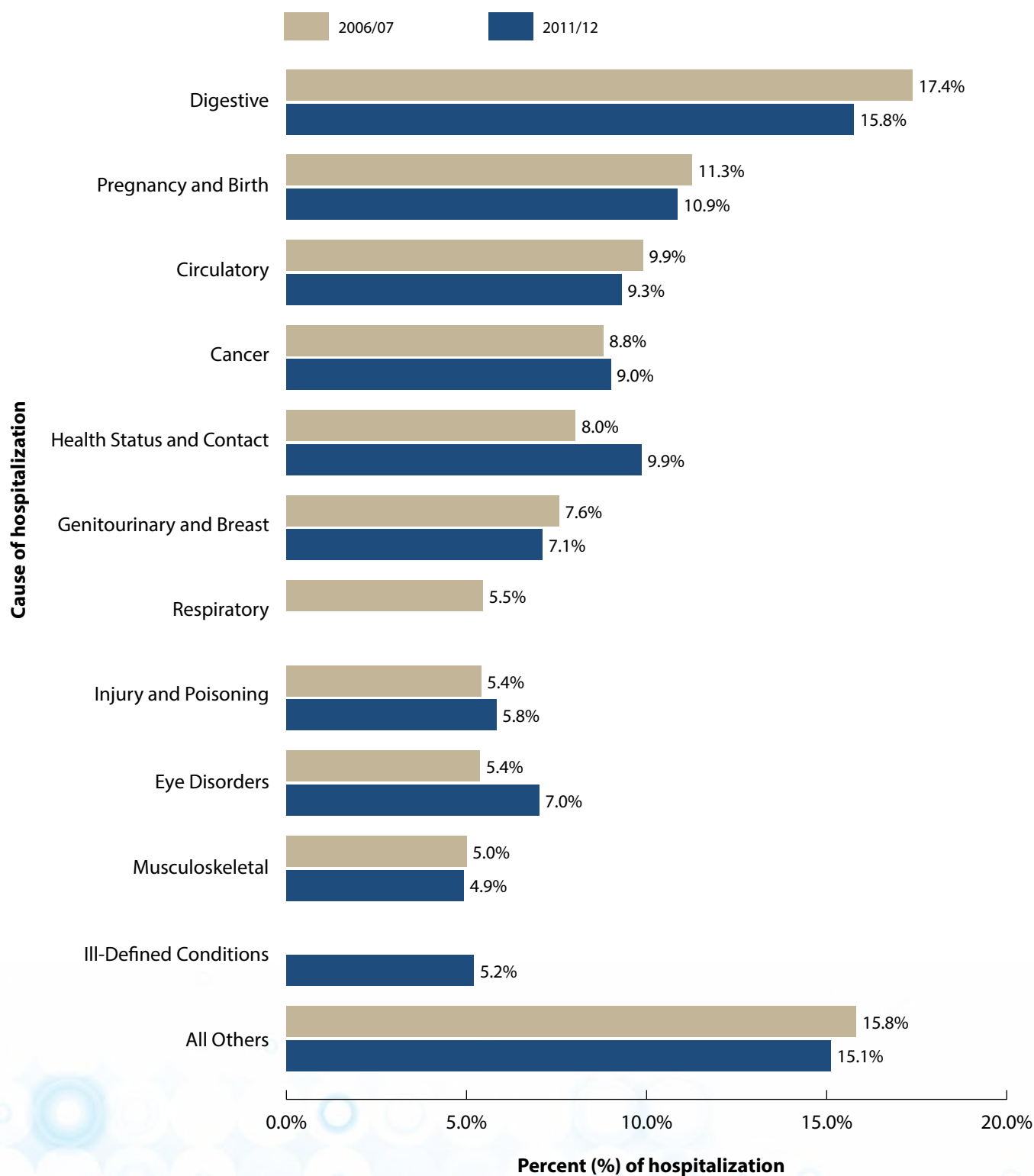
¹ To receive limited care or service for an ongoing condition, to donate and organ and/or tissue, to receive prophylactic immunization, or to discuss a problem other than a disease or injury for a situation or problem that influences the person's health status, however, is not currently an illness or injury.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A5.2.7.a1

Top Causes for Hospitalizations in Winnipeg Regional Health Authority

Average annual crude percent of hospitalizations, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

- Health status and contact: hospitalizations in this broad category included a large number of issues not necessarily connected to a specific diagnosis or disease: colonoscopies, convalescence and follow-up after surgery, sterilization procedures, palliative care, and others.
- Ill-defined conditions: For the majority of cases in this group of conditions, the patient was experiencing a specific problem; but it could not be assigned to a specific disease category. Hospitalizations were most commonly related to an undefined pain in the abdomen or chest, though a variety of other issues were also included such as malaise and fatigue, fainting, and pain in other areas.



Indicator: Hospital Readmission Rates (General)

DEFINITION: The percentage of hospitalization episodes where the patient is re-admitted to any hospital within 30 days of the initial hospital discharge. These inpatient readmissions are unplanned and defined by admission category “U” for urgent/emergent admissions.

NUMERATOR: Number of unplanned inpatient hospital readmissions within 30 days of discharge from the index hospital episode in a given year.

DENOMINATOR: Number of hospital episodes in a given year. Hospital episodes that combined multiple inpatient admissions for the same person to create a single, continuous stay in the hospital system, irrespective of transfers between hospitals (readmissions less than 24 hours after discharge were considered to be part of the same hospital episode) were not counted. Out-of-province hospitalizations for Manitoba residents were also excluded. In cases of birth, both the newborn and the mother’s hospitalizations were included as index hospitalizations.

CALCULATION: Age and sex-adjusted percentages were calculated for fiscal years 2006/07 and 2011/12, using Manitoba population in 2006/07 as the standard population.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In the Winnipeg Regional Health Authority (the Region), 7.7% of patients discharged from hospitals in 2006/07 and 7.3% of those discharged in 2011/12 were readmitted within 30 days. The percentage of hospital readmissions within 30-days of discharge has been relatively stable and in the Region it has been consistently lower than the provincial average.
- There was considerable variation in hospital readmission rates among neighborhood clusters (NC) in the Region, ranging from 5.2% in St James-Assiniboia East to 9.6% in Downtown East in 2011/12; the percentages appeared to be related to household median income in both time periods.

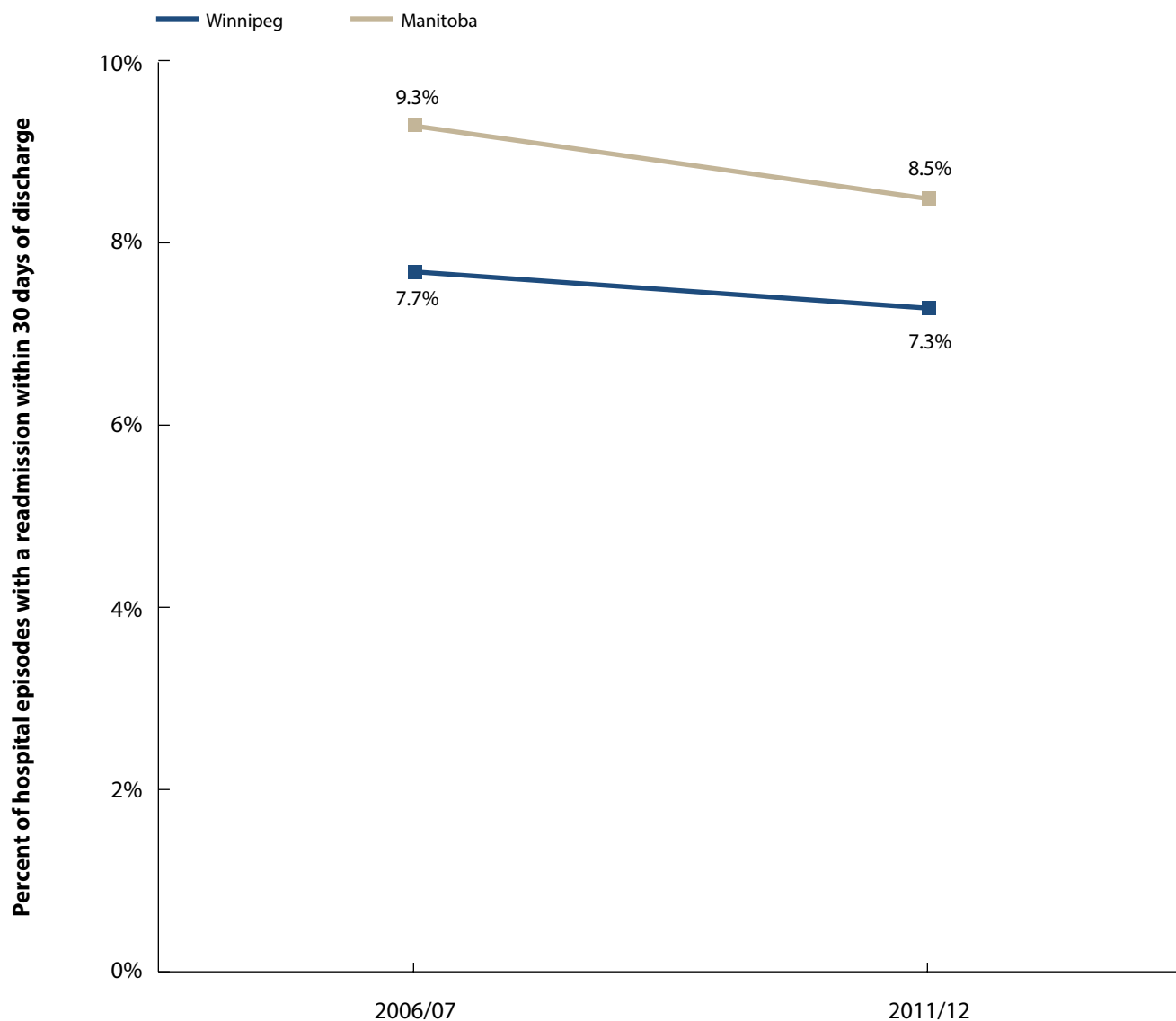
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Hospital readmission with 30 days of discharge is a measure of health care quality.

Figure A5.2.8.a1

Trends in Hospital Readmission within 30 Days of Discharge in Winnipeg & Manitoba

Age- & sex-adjusted percent of hospital episodes with a readmission within 30 days of discharge, 2006/07–2011/12

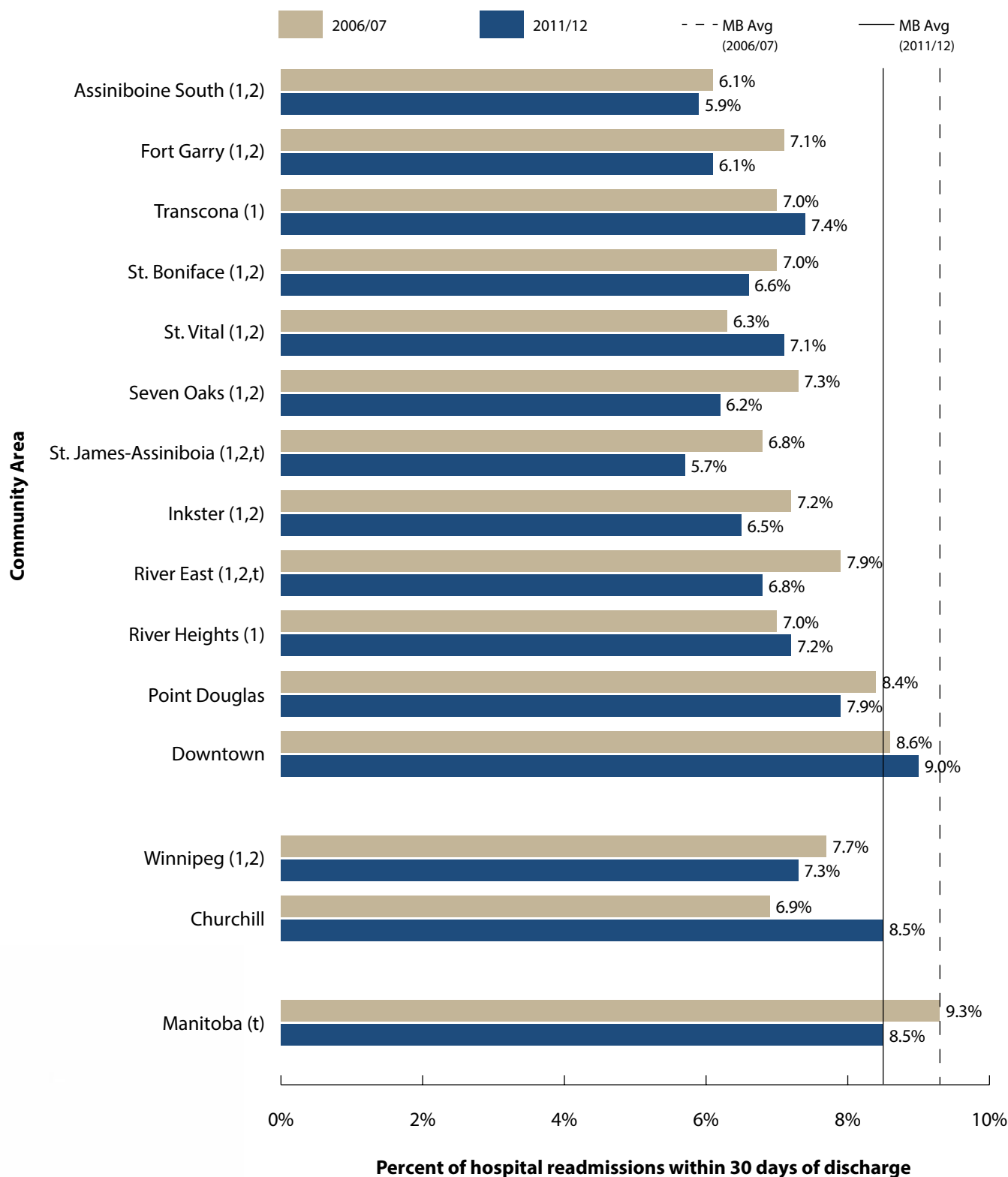


Source: Manitoba Center for Health Policy, 2013

Figure A5.2.8.a2

Hospital Readmission within 30 Days of Discharge by Winnipeg Community Area

Age- & sex-adjusted percent of hospital episodes with a readmission within 30 days of discharge, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

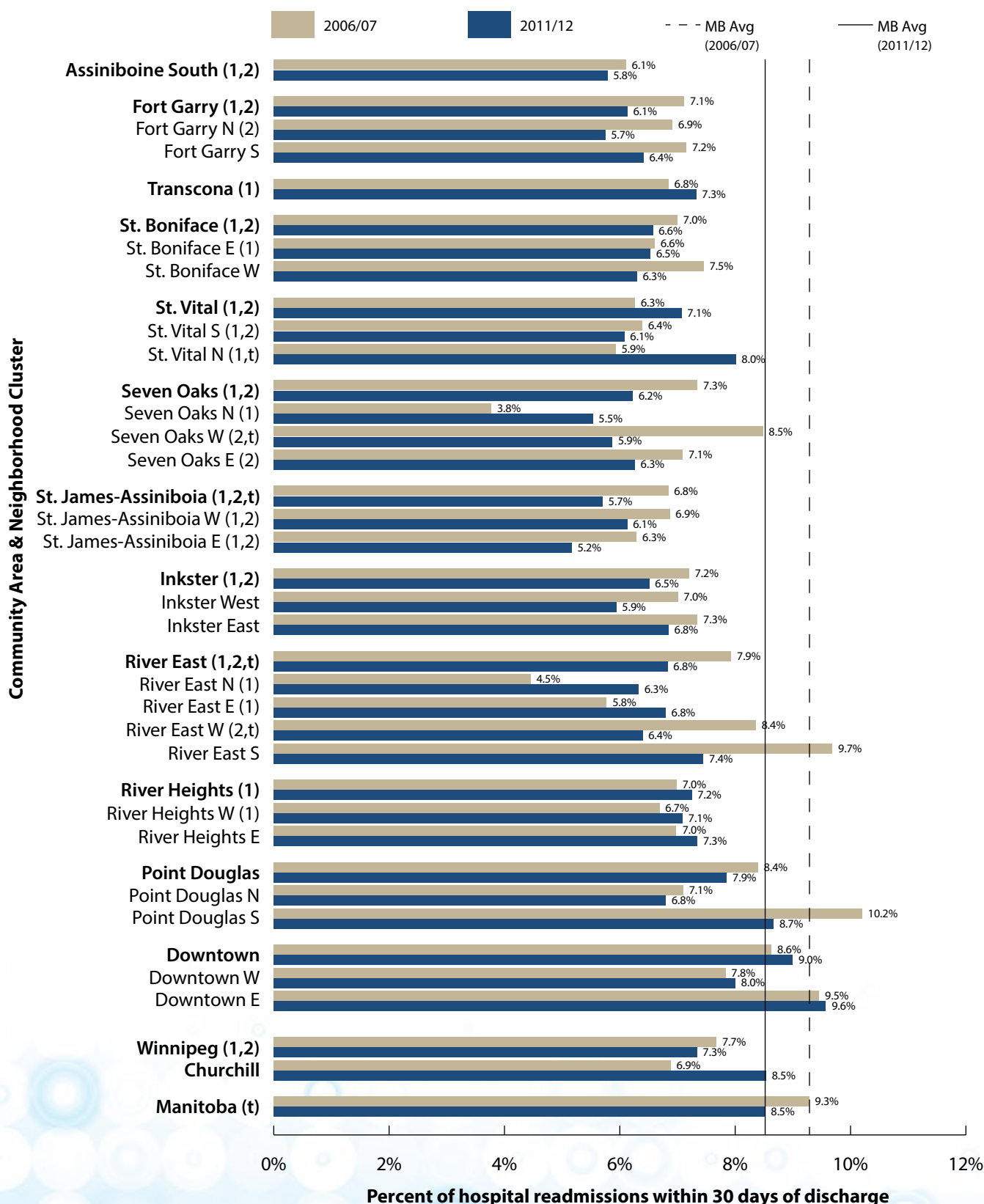
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.8.a3

Hospital Readmission within 30 Days of Discharge by Winnipeg Community Area & Neighborhood Cluster

Age- & sex-adjusted percent of hospital episodes with a readmission within 30 days of discharge, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

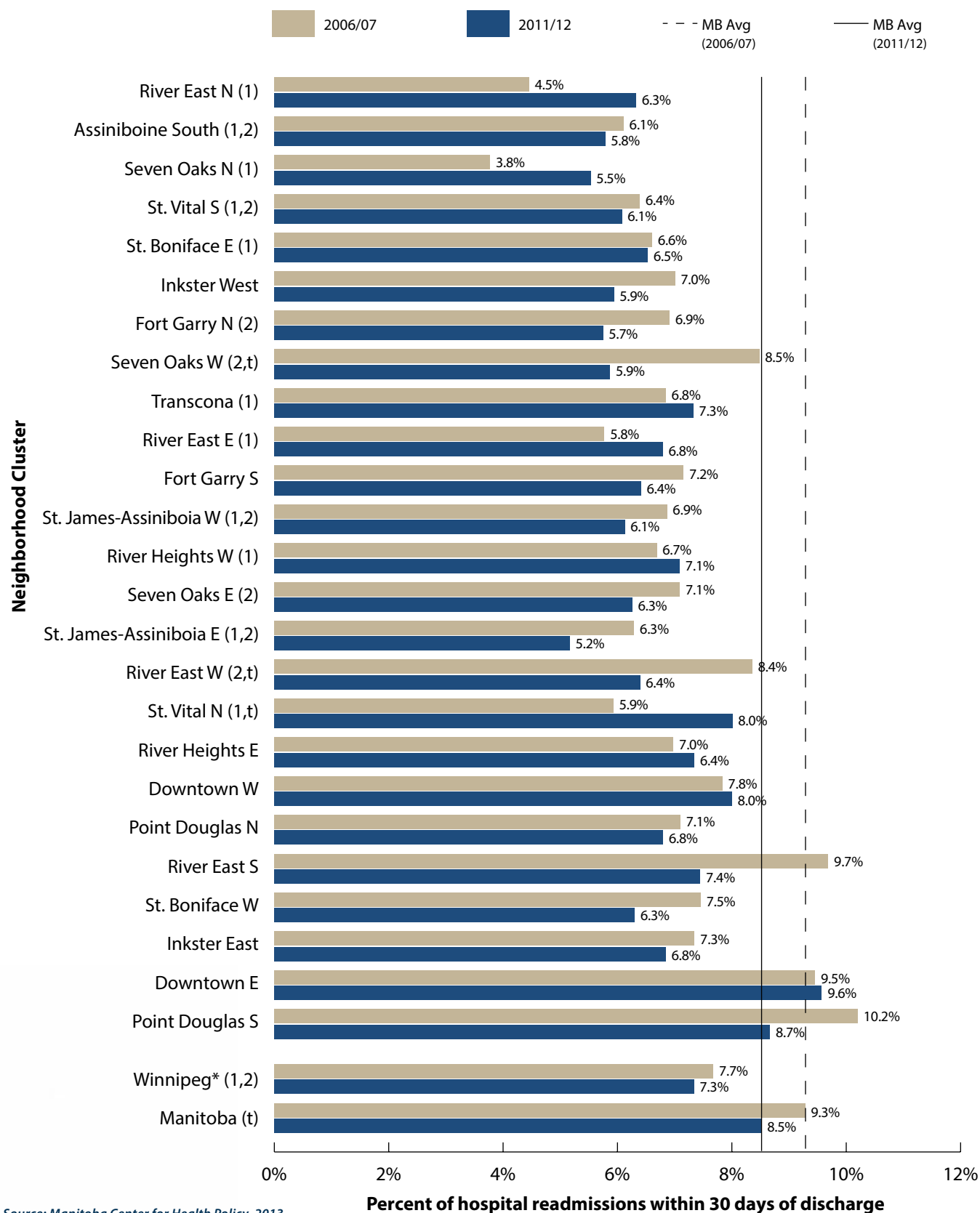
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.2.8.a4

Hospital Readmission within 30 Days of Discharge by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of hospital episodes with a readmission within 30 days of discharge, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

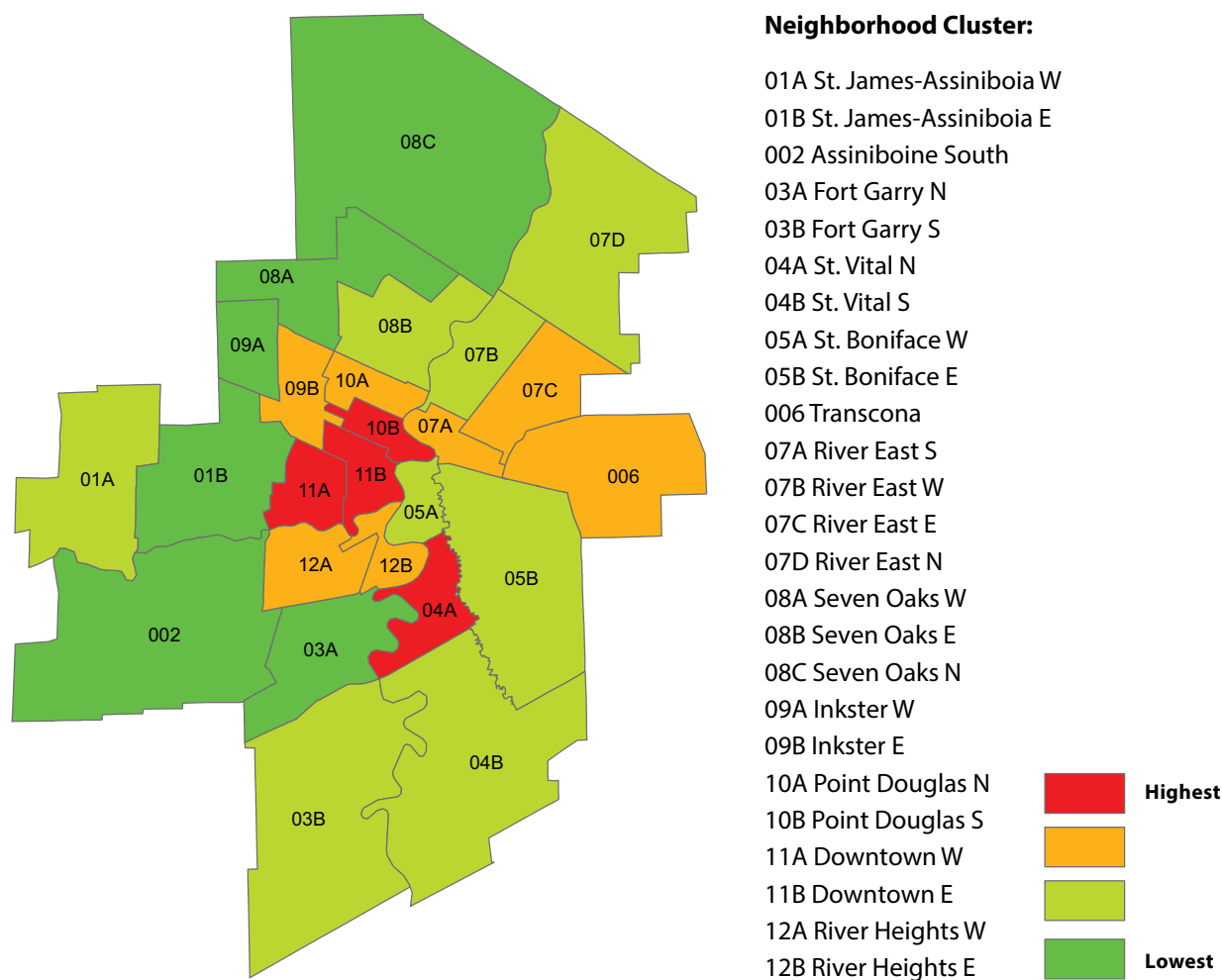
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'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Hospital Readmission within 30 Days of Discharge by Winnipeg Neighborhood Cluster

Age- & sex-adjusted percent of hospital episodes with a readmission within 30 days of discharge, 2011/12



Source: Manitoba Center for Health Policy, 2013

Table A5.2.8.a1

Health Inequality in Hospital Readmission within 30 Days of Discharge, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 % patients readmitted within 30 days of discharge	2011/12 % patients readmitted within 30 days of discharge
Hospital Readmission within 30 Days of Discharge by <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	4.5%	6.3%
Lowest income NC (Point Douglas S)	10.2%	8.7%
Absolute difference (Lowest income NC – Highest income NC)	5.7%	2.4%
Ratio (Lowest income NC / Highest income NC)	2.27	1.38
Hospital Readmissions within 30 Days of Discharge by <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	6.7%	6.0%
U4	6.3%	6.2%
U3	7.4%	6.7%
U2	7.7%	7.1%
Lowest Urban Income Quintile (U1)	8.6%	8.2%
Absolute difference (U1-U5)	1.9%	2.2%
Ratio (U1/U5)	1.28	1.37

Source: Manitoba Centre for Health Policy, 2013



Indicator: Use of Home Care

DEFINITION: The average number of clients receiving home care services each month in a given year.

DATA SOURCE: Manitoba Health, 2013

KEY FINDINGS:

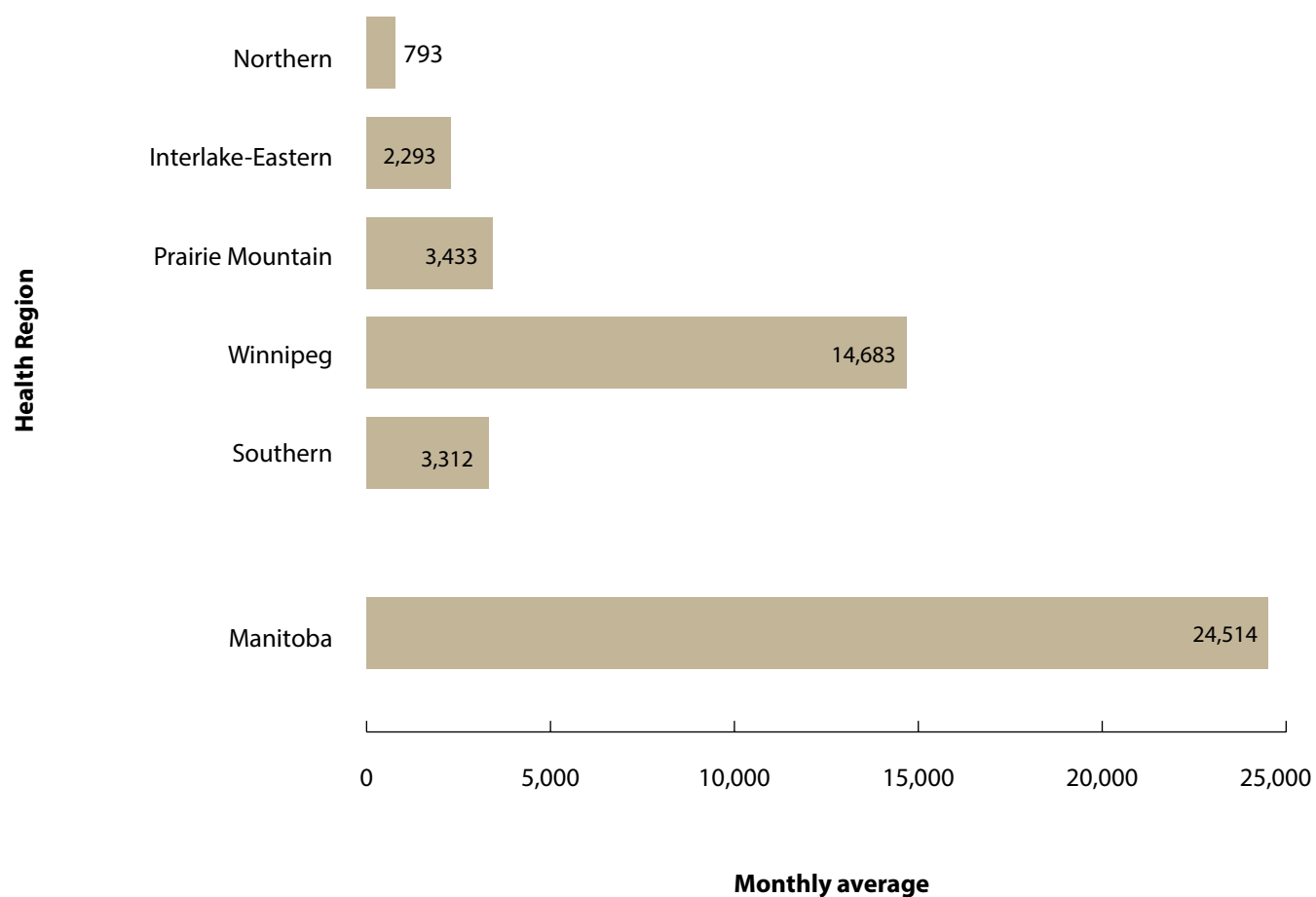
- On average, there were 24,514 clients receiving home care services each month in 2012/13 in Manitoba.
- In the Winnipeg Regional Health Authority (the Region), an average of 14,683 clients received home care services each month, accounting for 60% of the total provincial services.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Home care programs provide a variety of services (e.g., personal care assistance, nursing care, caregiver support, and rehabilitation service) to eligible residents and is an important service to help people live at home, remaining independent for as long as possible, thereby avoiding or delaying the need for individuals to go into long term care facilities.

Figure A5.3.1.a1

Average Monthly Number of Clients Receiving Coordinated Home Care Services by Health Region, 2012/13



Source: Manitoba Health, 2013



Indicator: Levels of Care on Admission to Personal Care Homes (PCH)

DEFINITION: The distribution of levels of care assigned to Personal Care Home (PCH) residents who were age 75 years and older at the time of their admission to a PCH. Level 1 and 4 represent the lowest and highest levels of need, respectively. Levels 2 and 3 are stratified by the close supervision indicator (coded as yes/no on assessment to indicate the need for close supervision due to possible behavioral issues). These levels are reported as “2Y” or “3Y” for residents who required such supervision and “2N” or “3N” for residents who did not. Level 4 was not stratified due to small numbers. Area of residence was assigned based on where people were admitted to the PCH--by the location of the PCH (current postal code and municipal code).

NUMERATOR: Number of PCH admissions categorized at the different levels.

DENOMINATOR: Number of total admissions to PCHs in a given year.

CALCULATION: Crude values are reported for 2005/06–2006/07 and 2010/11–2011/12. This indicator only includes information on provincial PCH beds; federal beds are not included due to lack of information in the provincial data.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In the Winnipeg Regional Health Authority (the Region),
 - No residents were admitted for Level 1 (the lowest) care during 2005/06–2006/07 or 2010/11–2011/12.
 - The proportion of patients admitted for level 4 (the highest) care increased from 6.8% in 2005/06–2006/07 to 9.0% in 2010/11–2011/12.
 - The proportion of level 2N care declined from 40.1% in 2005/06–2006/07 to 18.0% in 2010/11–2011/12.
 - The proportion of Level 3 care increased and accounted for more than a half (55.6%) of all admissions in 2010/11–2011/12.
 - The distribution varied across the Region, but there was no consistent pattern observed for the variations over time.

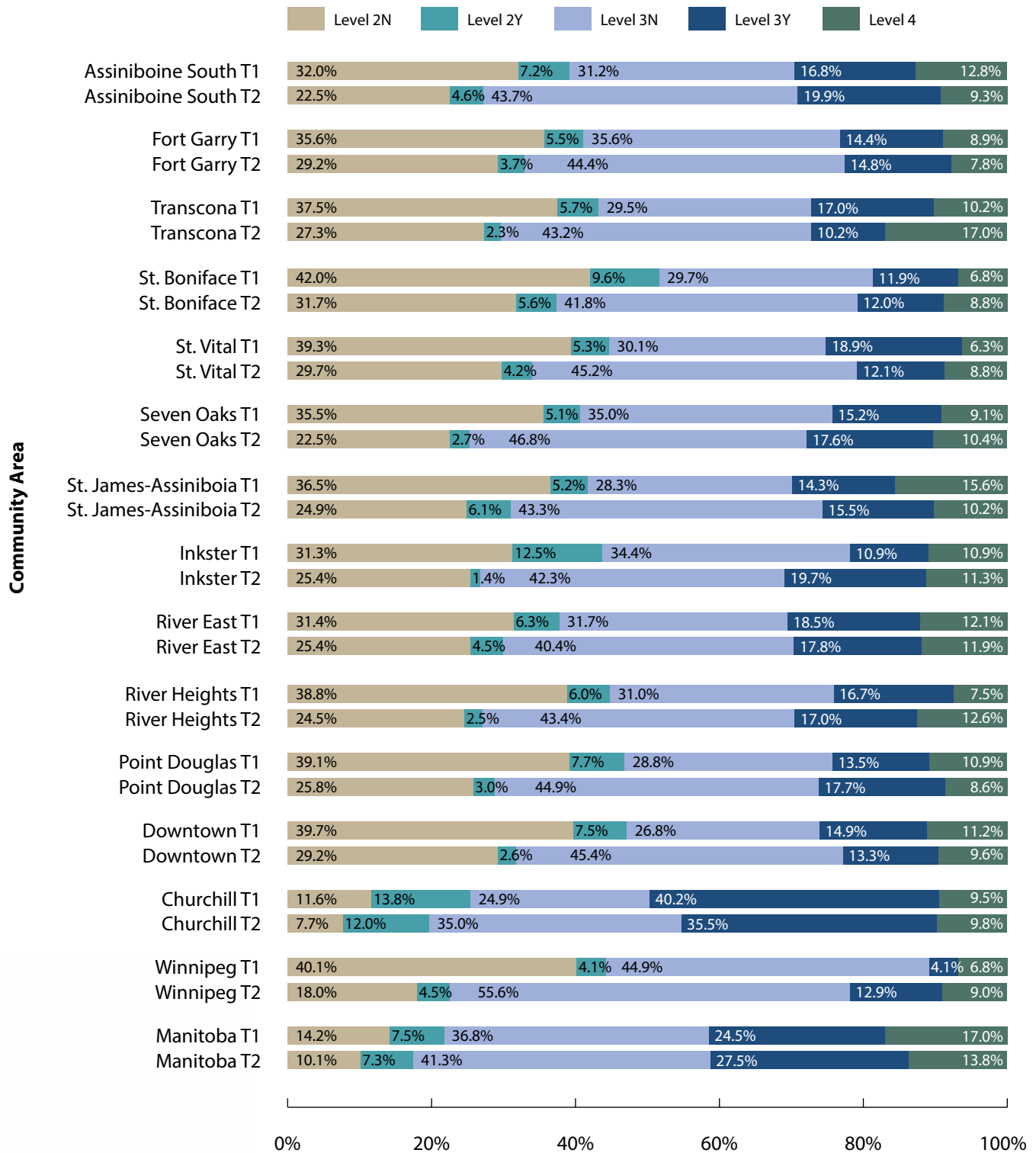
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Home care planning may need to consider the increased proportion of patients being admitted at the highest level of care (level 4).

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A5.4.1.a1

Levels of Care on Admission to Personal Care Homes for Residents Aged 75 + by Winnipeg Community Area, T1 = 2005/06-2006/07 & T2 = 2010/11-2011/12



Y - indicates requirement for close supervision
N - indicates no requirement for close supervision

Source: Manitoba Center for Health Policy, 2013



Indicator: Residents in Personal Care Home (PCH)

DEFINITION: The percentage of residents aged 75 years and older living in a personal care home (PCH) for at least one day in a fiscal year. Assignment of region (residence) in the numerator was based on the current postal code and municipal code of the PCH (which for most PCH residents is the address of their PCH).

NUMERATOR: Number of residents aged 75 years and older living in a PCH.

DENOMINATOR: Number of residents aged 75 years and older as of December 31 of each year.

CALCULATION: Average annual values are shown for 2005/06–2006/07 and 2010/11–2011/12 and are age- and sex-adjusted to the population of Manitoba aged 75 years and older.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- The percent of residents aged 75 years and older and living in a PCH in the Winnipeg Regional Health Authority (the Region) has slightly decreased from 12.9% in 2005/06–2006/07 to 11.5% in 2010/11–2011/12.
- Within Winnipeg, there is a “w” shape distribution according to the order of median household income: Assiniboine South and Downtown had the highest percentages, followed by Seven Oaks and St. James-Assiniboia.
- Percentages for Churchill appear particularly high, but a caution is needed for the interpretation due to the small number of residents in this area ($n < 1,000$).

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

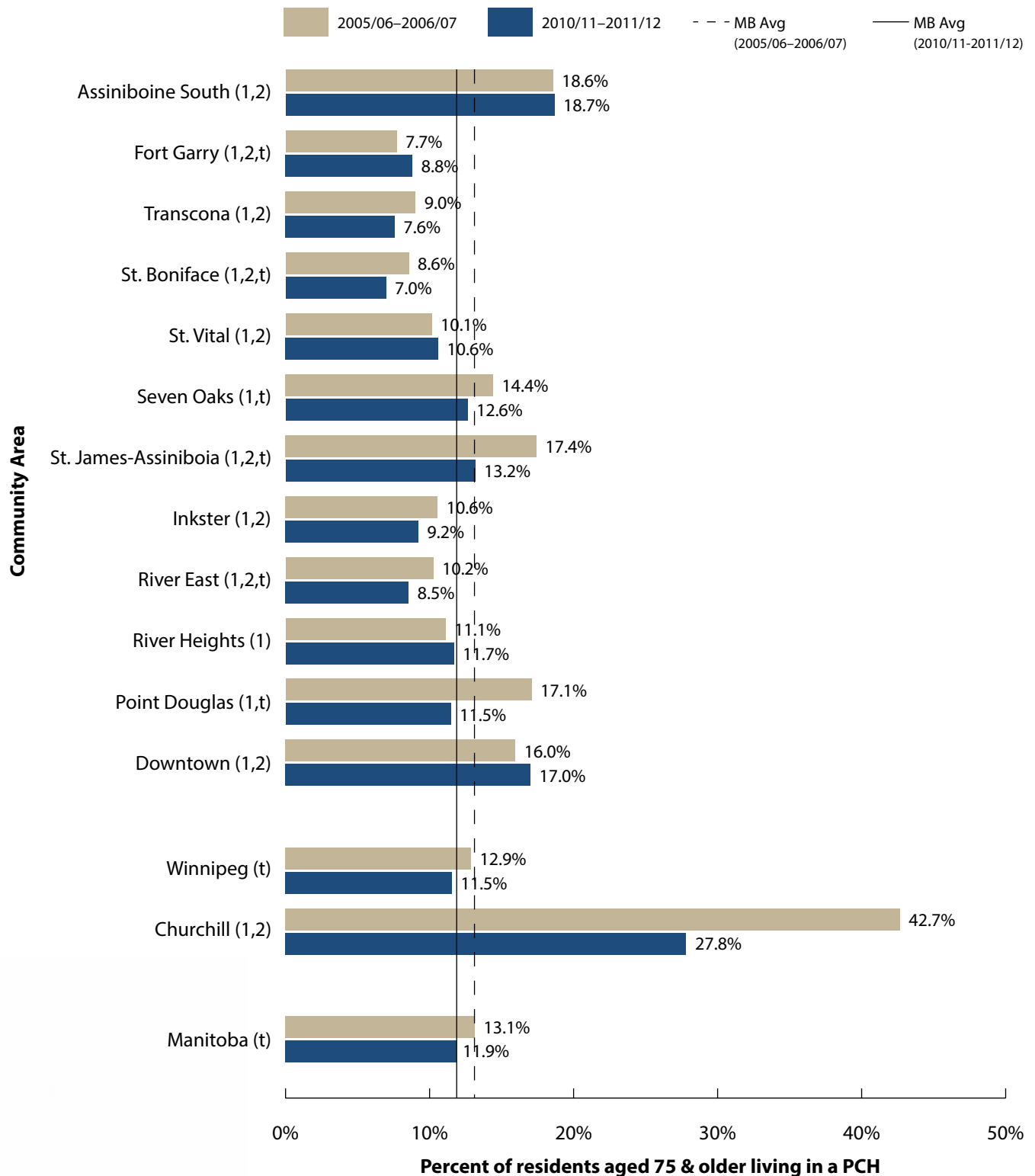
- The high percentages in Assiniboine South and Downtown are probably due to the high supply of PCH beds in those communities.
- While the percentage of residents in PCH was similar to the provincial average, the median waiting times from hospital and community in the Region were the lowest in the province. However, the waiting times varied by community area.

****The following chart of Community Area is ordered by decreasing median household income.**

Figure A5.4.2.a1

Residents in Personal Care Homes by Winnipeg Community Area

Age- & sex-adjusted average annual percent of residents aged 75 & older living in a PCH, 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

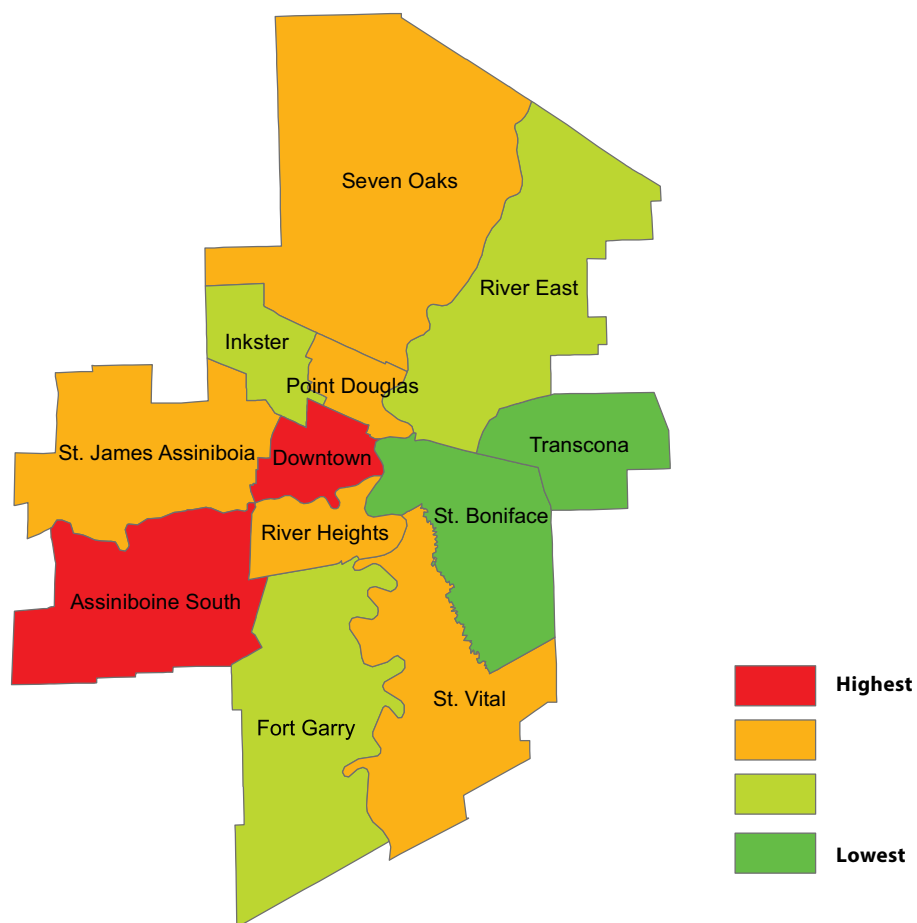
'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Residents in Personal Care Homes by Winnipeg Community Area

Age- & sex-adjusted average annual percent of residents aged 75 and older living in a PCH, 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013



Indicator: Antidepressant Prescription Follow-Up

DEFINITION: The percentage of patients (all ages, with a physician diagnosis of depression and a new prescription for antidepressants within two weeks of diagnosis) who had at least three physician visits within four months of the prescription being filled.

NUMERATOR: Number of Winnipeg Regional Health Authority (the Region) residents (all ages) who had a physician diagnosis of depression and a new prescription for antidepressants within two weeks of diagnosis and had at least three physician visits within four months of the prescription being filled. The patients could not have a prescription for antidepressants or a physician visit with a diagnosis of depression in the two years prior to the index event.

DENOMINATOR: Number of the Region's residents (all ages) with a physician diagnosis of depression and a new prescription for antidepressants within two weeks who survived the four-month follow-up.

CALCULATION: Crude percent was calculated for two 5-year periods: 2002/03–2006/07 and 2007/08–2011/12; 1998/99–2000/01 and 2003/04–2005/06. *Note:* 2003/04–2005/06 data is not reported in the trend chart as it overlaps with the 2002/03–2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- In the Region the percent of patients who had 3 or more physician visits after anti-depressant prescriptions decreased slightly over time, from 61.3% in the period 1998/99–2000/01 to 57.0% in the period 2007/08–2011/12.
- There was relatively little variation across communities in the Region.

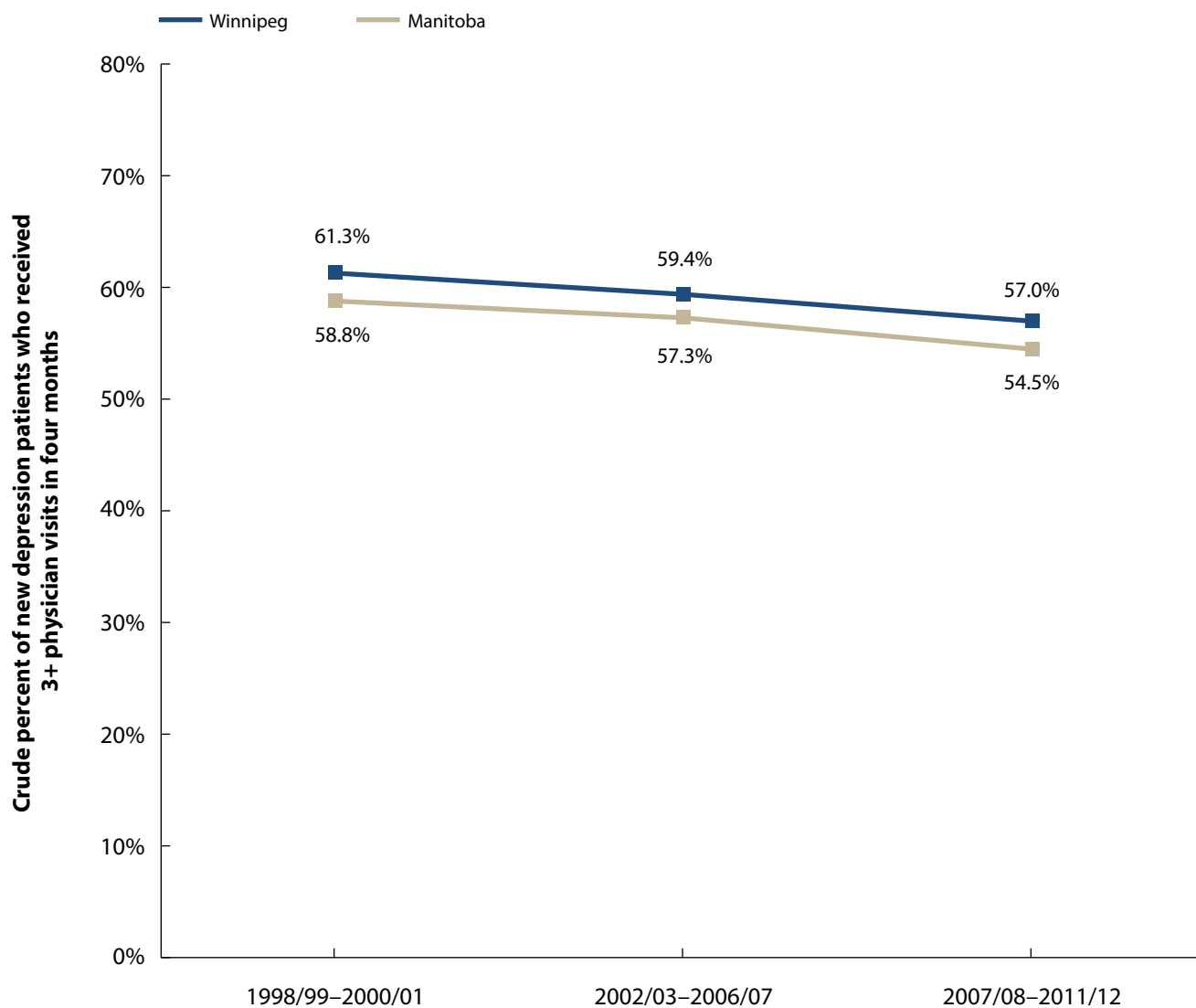
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Follow-up of antidepressant prescription is an important step to ensuring patient safety since some studies have suggested that these drugs increase suicide risk.
- Due to the exclusion of patients who died during the four month follow-up (as in the denominator), the actual follow-up percentage might be lower.

Figure A5.5.1.a1

Trends in Antidepressant Follow-Up in Winnipeg & Manitoba

Crude % of patients prescribed a new antidepressant & who received at least 3 physician visits in 4 months following the antidepressant prescription, 1998/99–2011/12

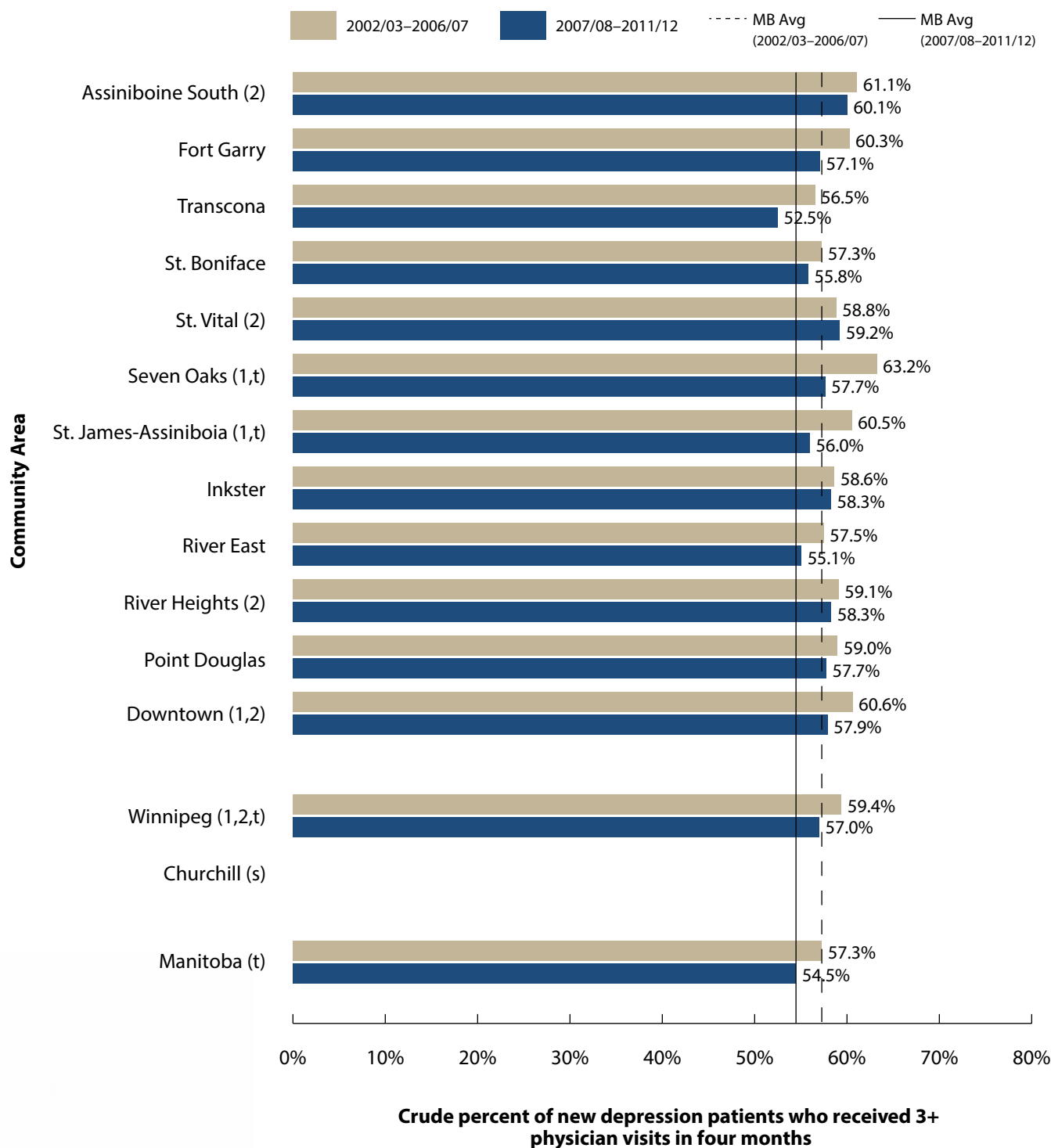


Source: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.5.1.a2

Antidepressant Follow-Up by Winnipeg Community Area

Crude percent of persons prescribed a new antidepressant & who received at least 3 physician visits in 4 months following the antidepressant prescription, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

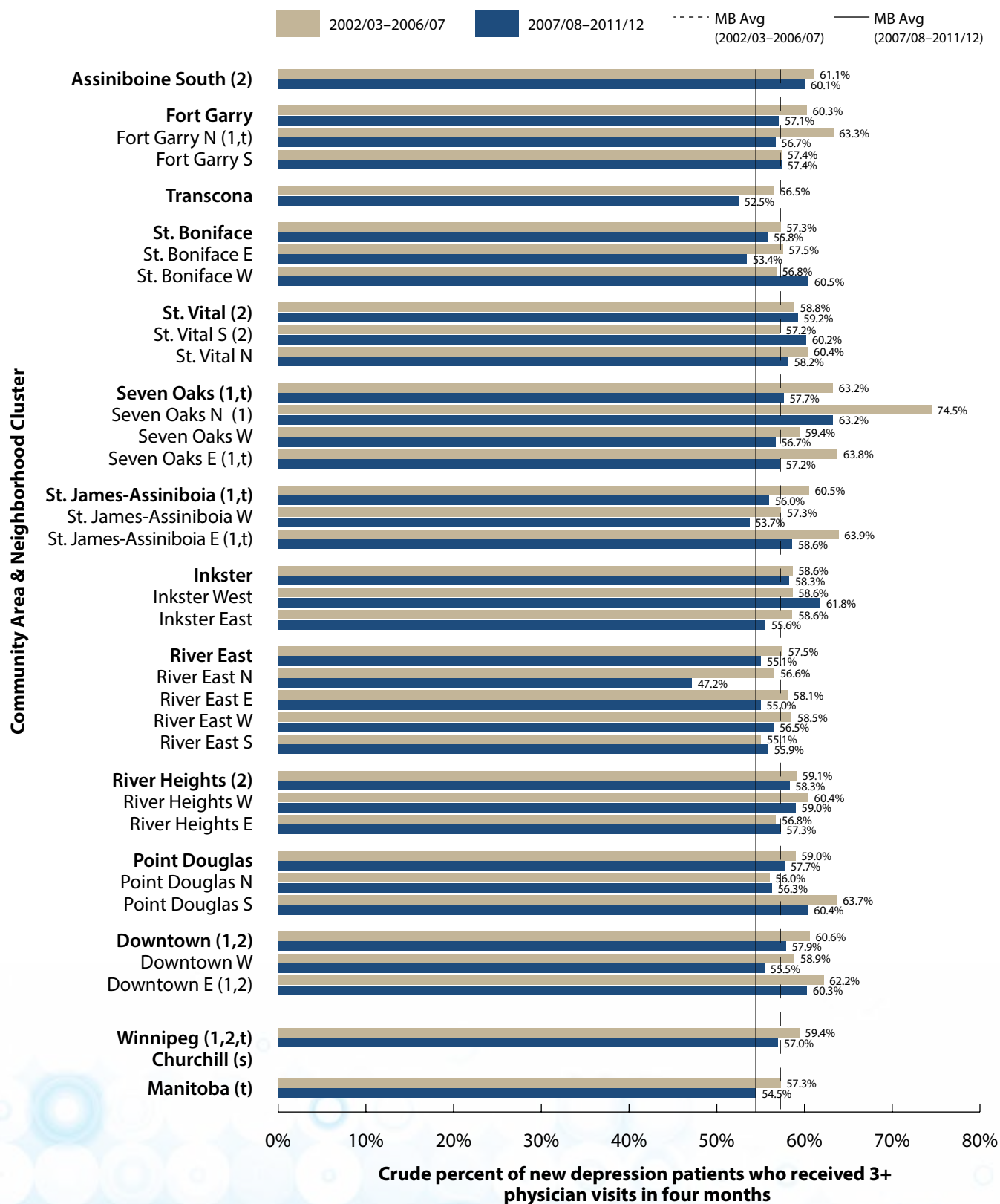
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A5.5.1.a3

Antidepressant Follow-Up by Winnipeg Community Area & Neighborhood Cluster

Crude percent of persons prescribed a new antidepressant & who received at least 3 physician visits in 4 months following the antidepressant prescription, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

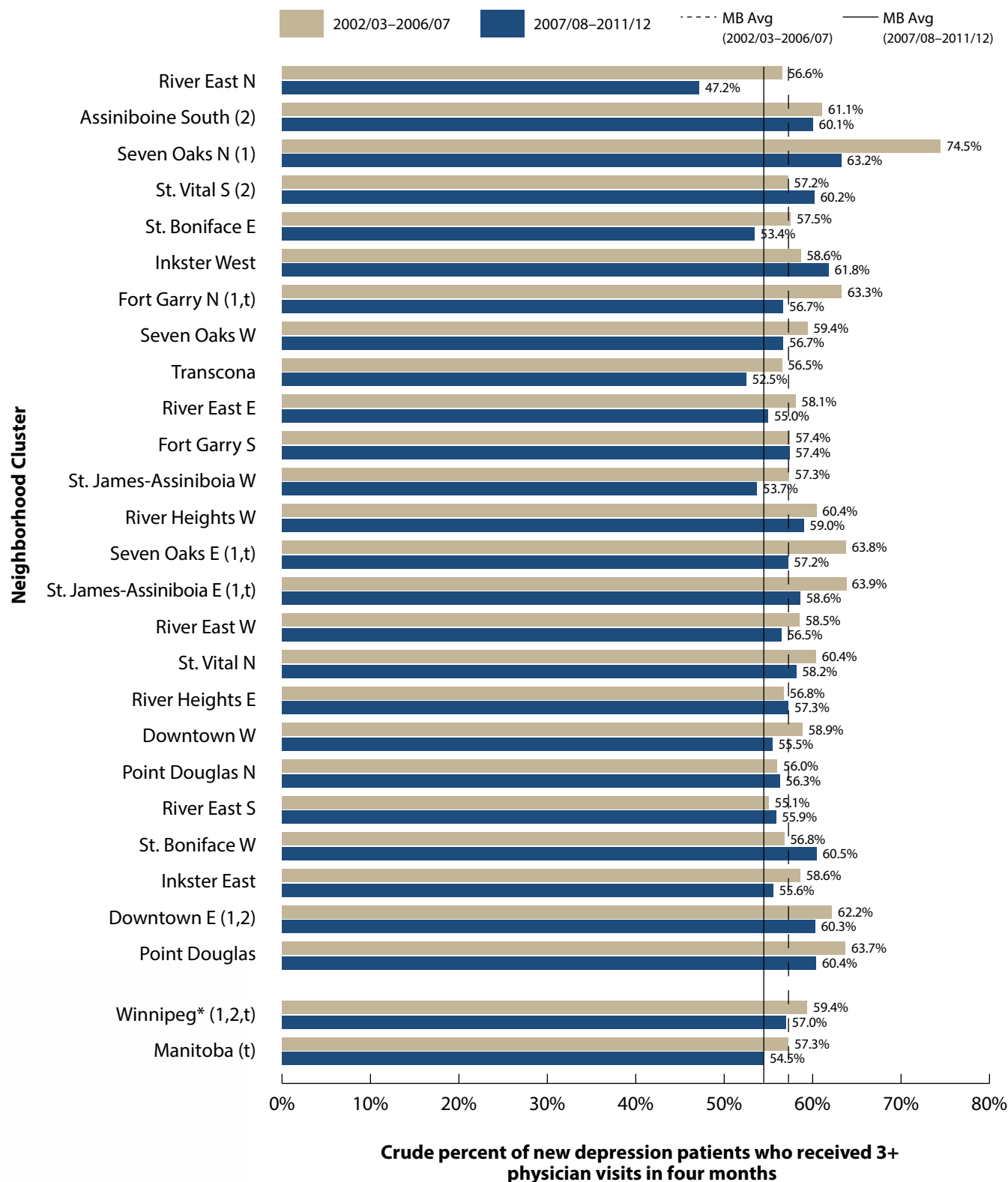
't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Figure A5.5.1.a4

Antidepressant Follow-Up by Winnipeg Neighborhood Cluster

Crude percent of persons prescribed a new antidepressant & who received at least 3 physician visits in 4 months following the antidepressant prescription, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

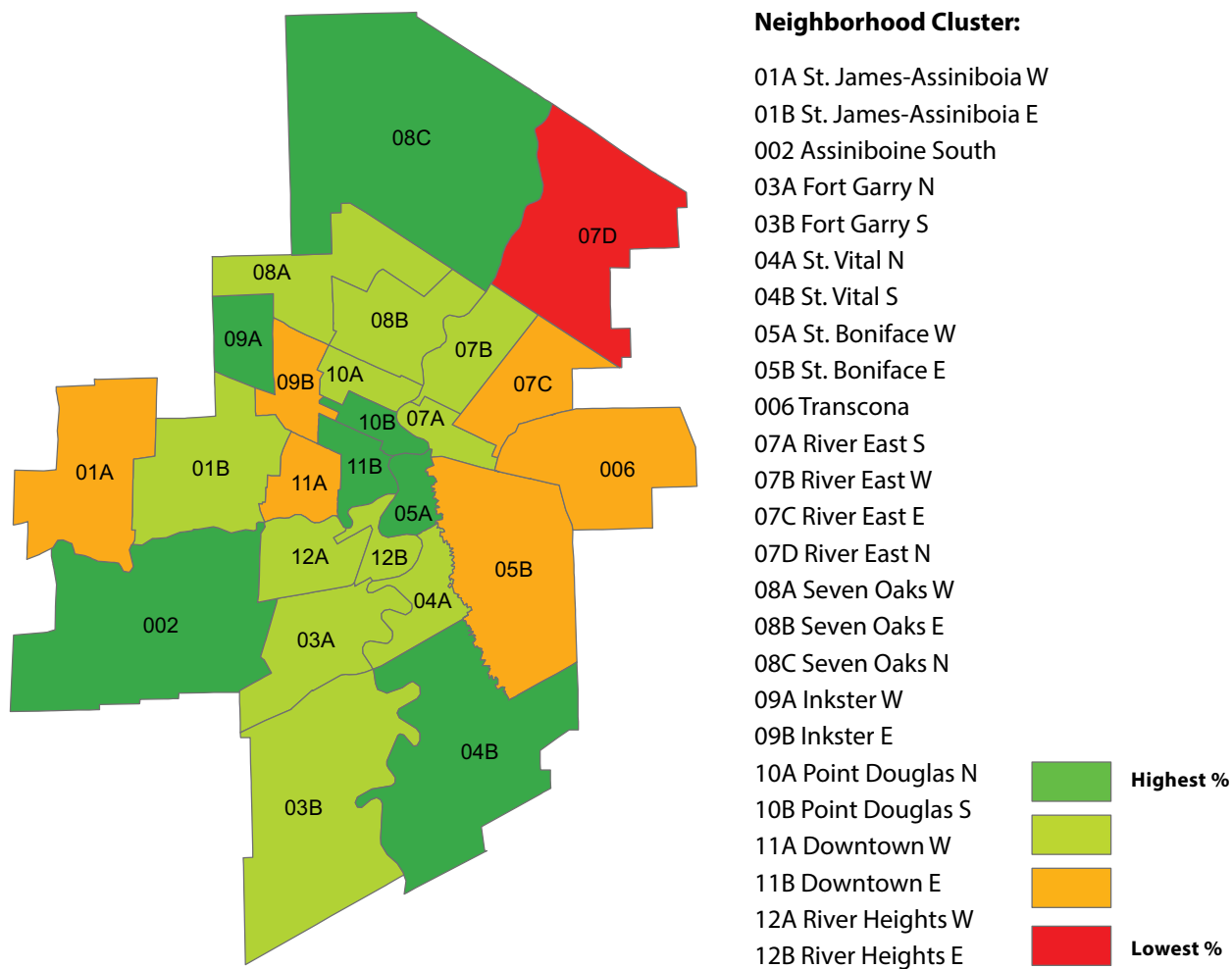
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

's' indicates that the results were suppressed to ensure confidentiality

Antidepressant Follow-Up by Winnipeg Neighborhood Cluster

Crude percent of persons prescribed a new antidepressant who received at least 3 physician visits in 4 months following the antidepressant prescription, 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013



Indicator: Asthma Care: Controller Medication Use

DEFINITION: The percentage of asthma patients (all ages) receiving (controller) medications recommended for long-term control of their disease. Asthma patients were those who received two or more prescriptions for beta 2-agonists (reliever medications).

NUMERATOR: Number of asthma patients receiving recommended controller medications (i.e., inhaled steroids).

DENOMINATOR: Number of asthma patients (i.e., residents with two or more prescriptions for reliever medications).

CALCULATION: Crude rates were calculated for 2006/07 and 2011/12.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Nearly two thirds of asthma patients in the Winnipeg Regional Health Authority (the Region) received controller medications (inhaled steroids).
- There was little variation across the communities in the Region.

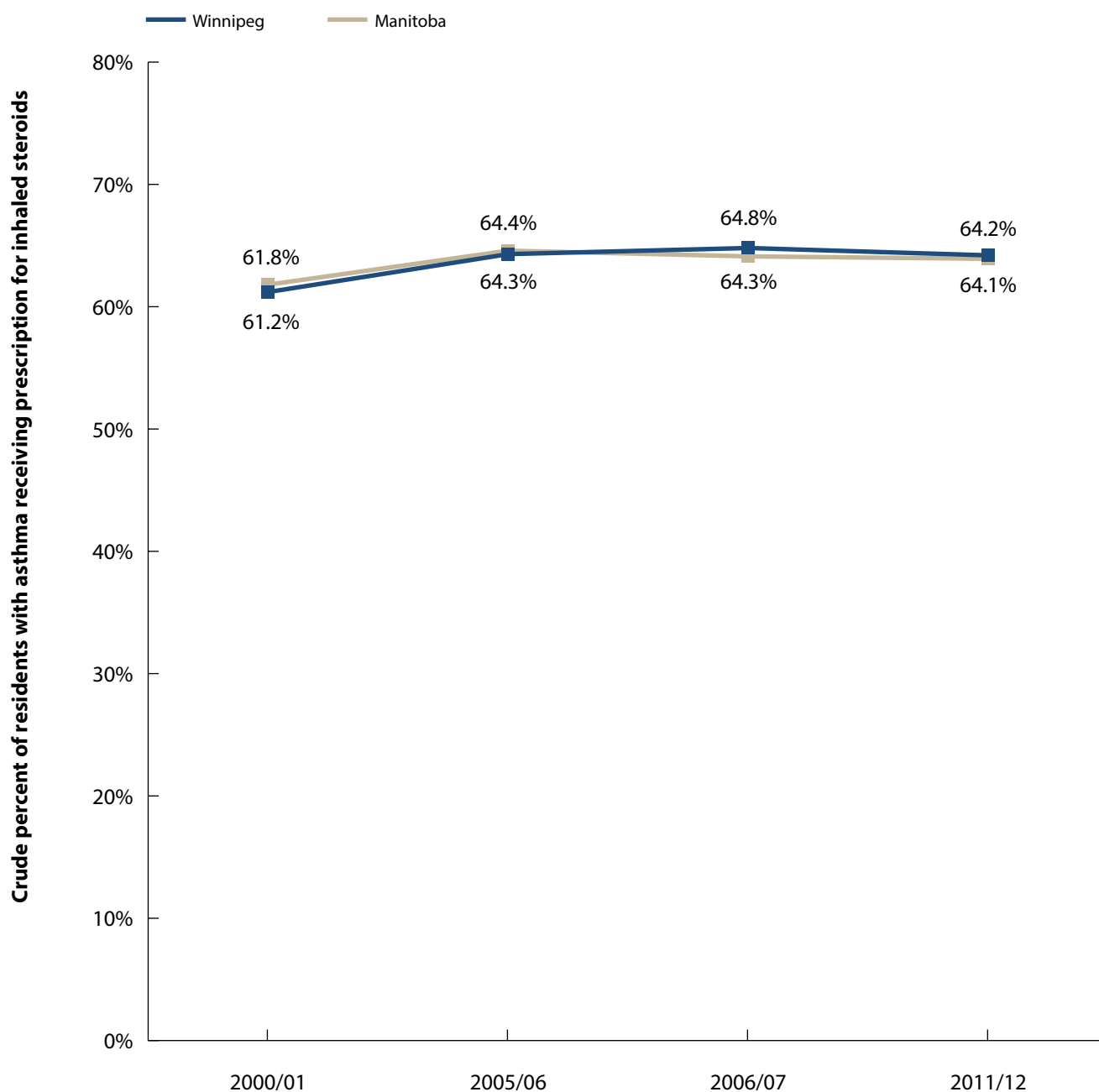
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Asthma medications include two classes: reliever medication and controller medication. Reliever medications (also called fast-acting or rescue medications) act immediately to open up the airways and relieve symptoms such as wheezing, coughing, and shortness of breath. Controller medications control the inflammation in the airways and prevent the asthma symptoms.
- Adherence to controller medication use is an important factor in controlling asthma and in reducing asthma-related deaths and health costs.

Figure A5.5.2.a1

Trends in Asthma Care: Controller Medication Use in Winnipeg & Manitoba

Crude percent of residents with asthma receiving at least one prescription for inhaled steroids, 2000/01–2011/12

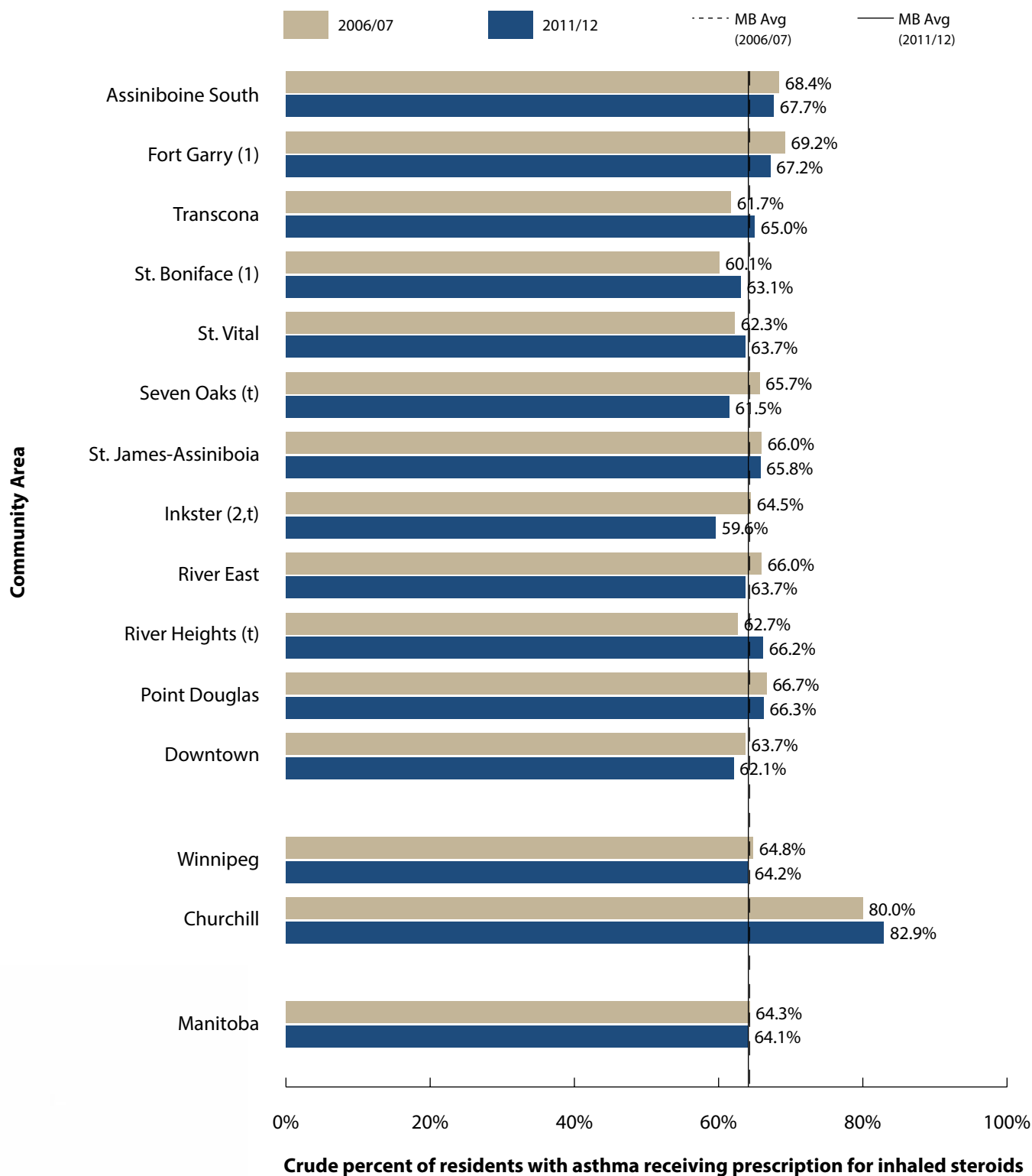


Source: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.5.2.a2

Asthma Care: Controller Medication Use by Winnipeg Community Area

Crude percent of residents with asthma receiving at least one prescription for inhaled steroids, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

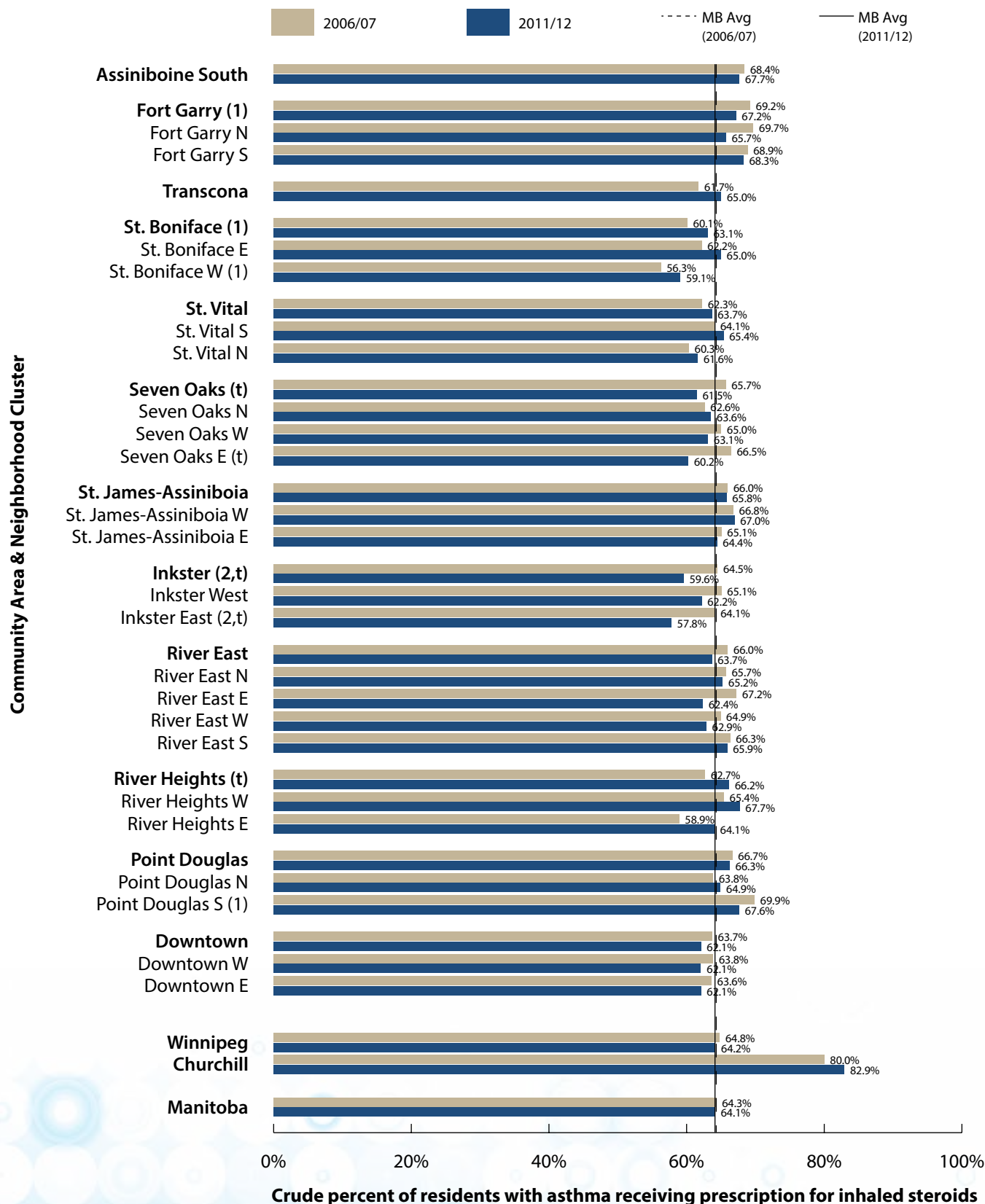
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.5.2.a3

Asthma Care: Controller Medication Use by Winnipeg Community Area & Neighborhood Cluster

Crude percent of residents with asthma receiving at least one prescription for inhaled steroids, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

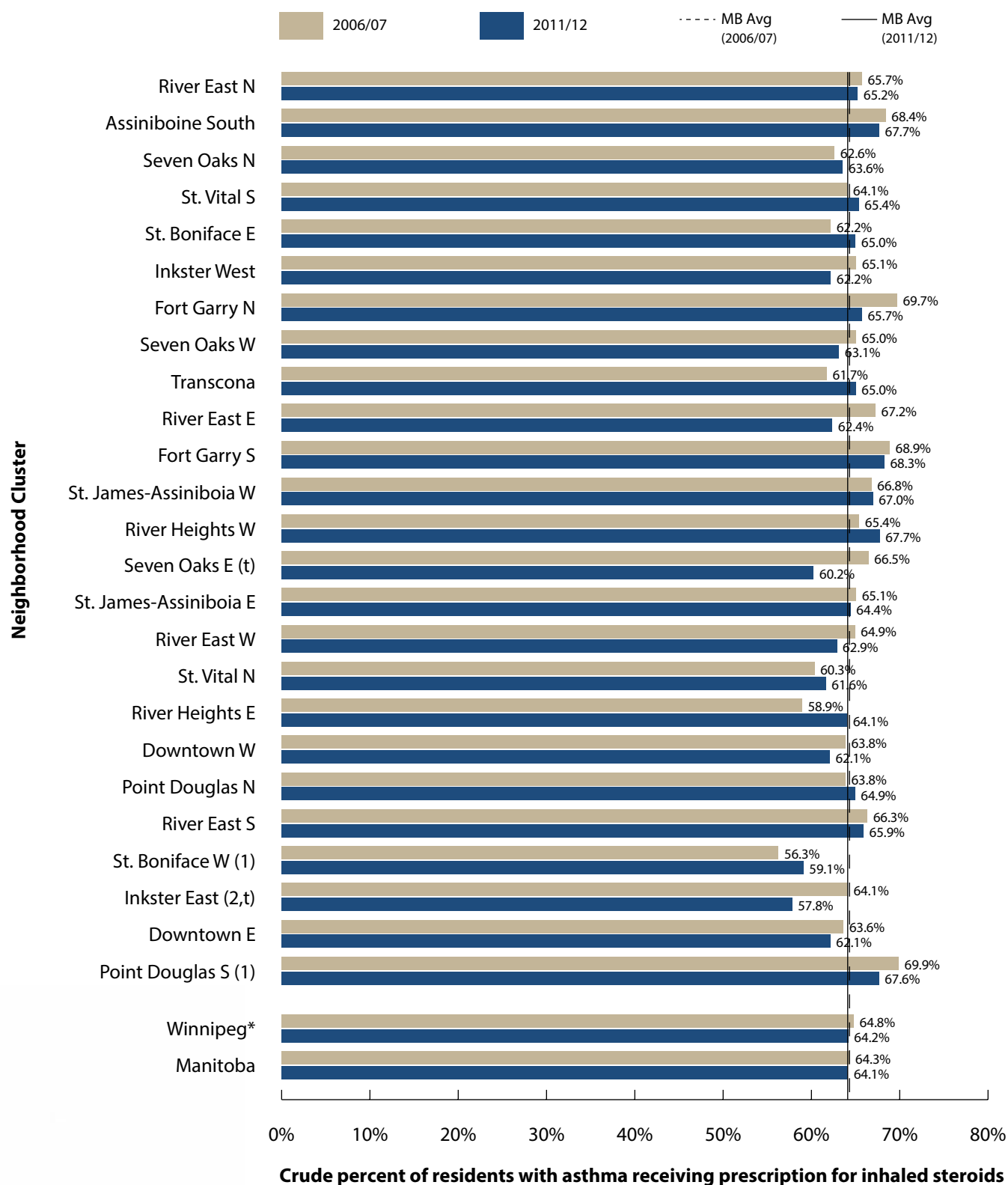
'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Figure A5.5.2.a4

Asthma Care: Controller Medication Use by Winnipeg Neighborhood Cluster

Crude percent of residents with asthma receiving at least one prescription for inhaled steroids, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

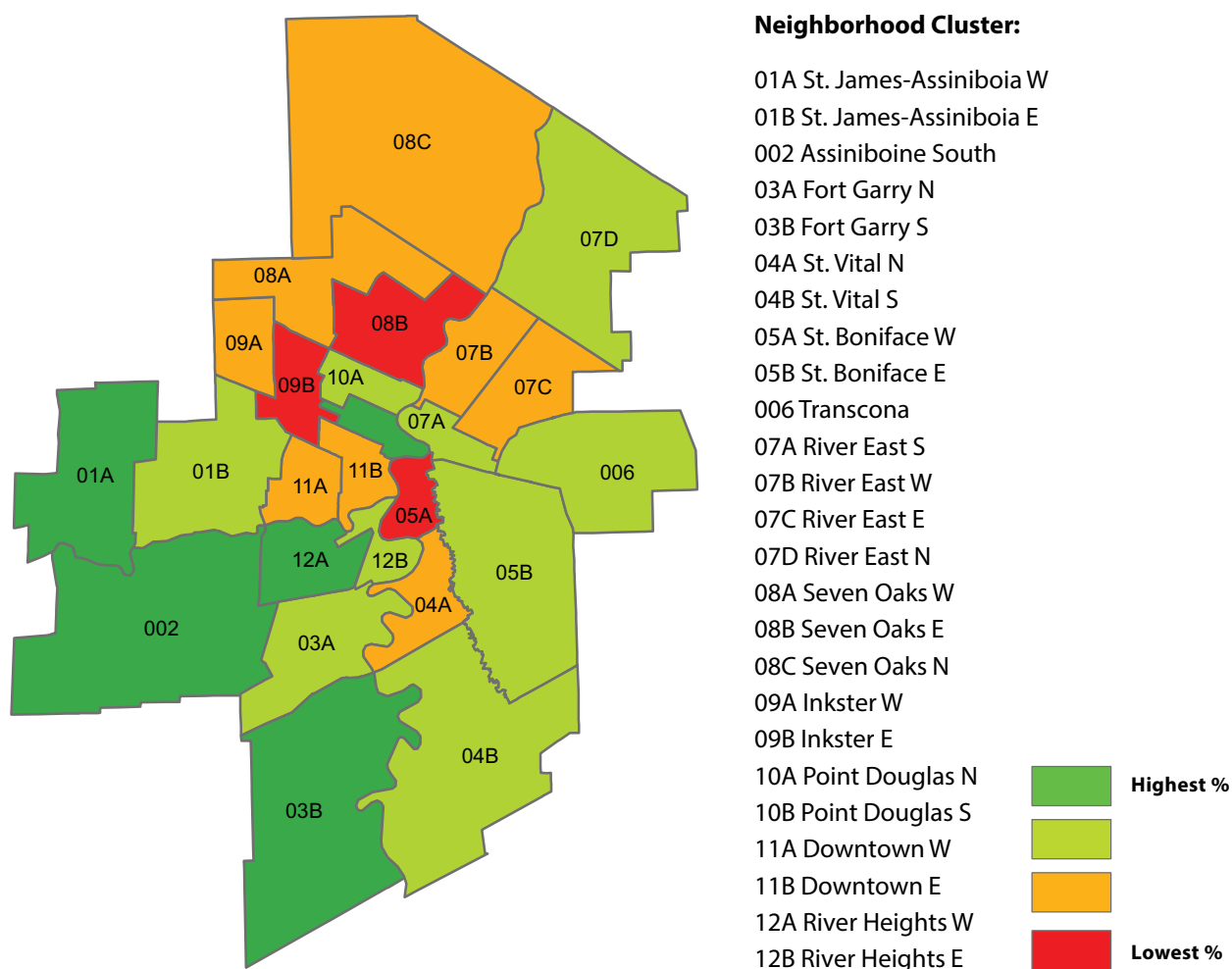
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'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

Asthma Care: Controller Medication Use by Winnipeg Neighborhood Cluster

Crude percent of residents with asthma receiving at least one prescription for inhaled steroids, 2011/12



Source: Manitoba Centre for Health Policy, 2013



Indicator: Benzodiazepine Prescribing for Community-Dwelling Seniors

DEFINITION: The percentage of residents aged 75 years and older living in the community (i.e., not in a personal care home) who had at least two prescriptions for benzodiazepines or at least one prescription for benzodiazepines with a greater than 30 day supply dispensed.

NUMERATOR: Number of Winnipeg Regional Health Authority (the Region) residents (aged 75 years and older) with at least two prescriptions for a benzodiazepine or at least one prescription with a greater than 30 day supply of a benzodiazepine.

DENOMINATOR: Number of the Region's residents (aged 75 years and older) living in the community.

CALCULATION: Crude percentages were calculated for 2005/06-2006/07 and 2010/11-2011/12; for 2000/01 and 2005/06. *Note:* 2005/06 data is not reported in the trend chart as it is included in 2005/06-2006/07 data.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- The percent of the Region's community-dwelling seniors (age 75 years and older) using benzodiazepines increased slightly from 18.4% in 2000/01 to 19.7% in 2010/11-2011/12 and has remained stable since then.
- In 2010/11-2011/12 there was variation between community areas ranging from 12.6% in Inkster to 23.0% in St Boniface.

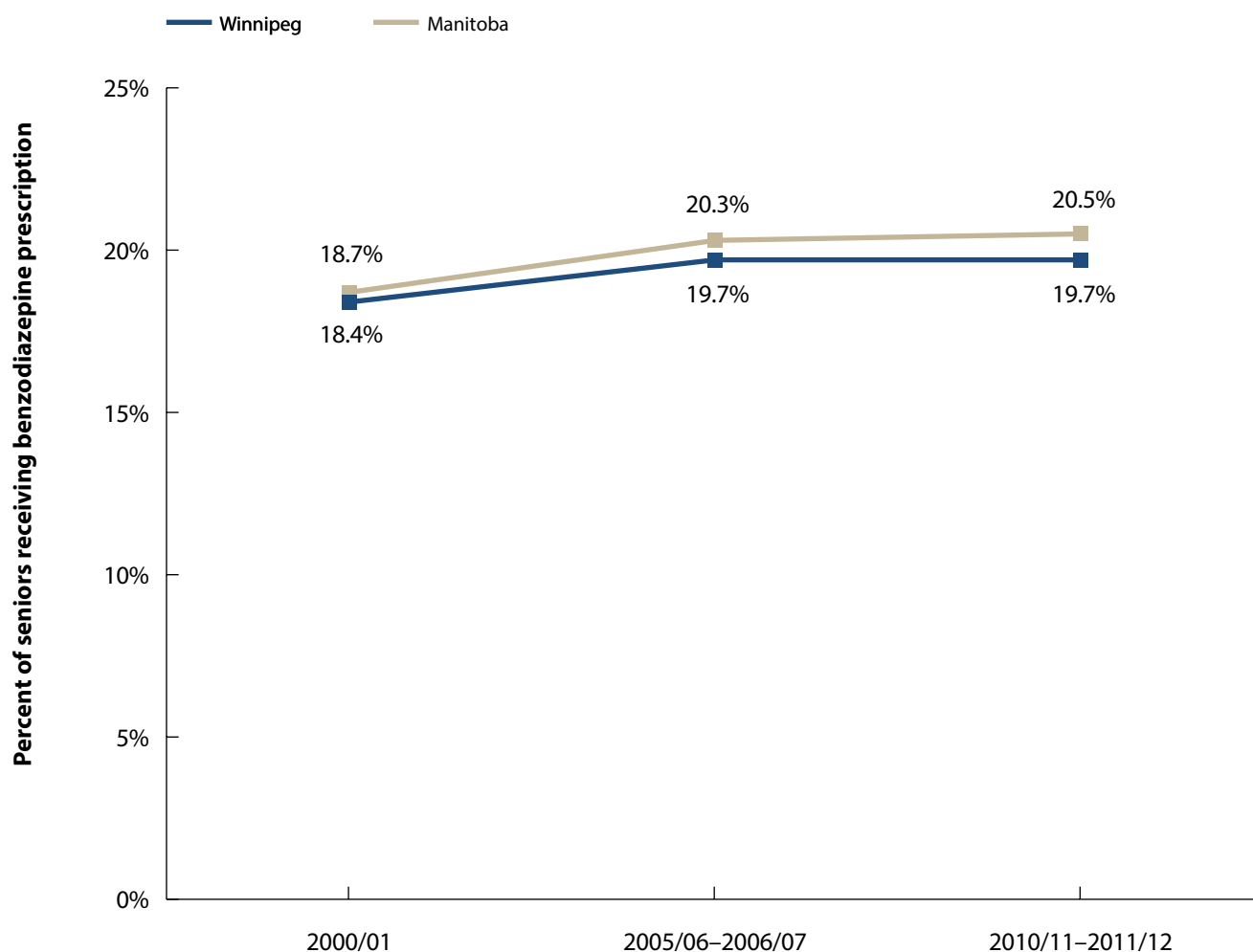
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Use of benzodiazepines is not recommended for seniors, so lower percentages are better.

Figure A5.5.3.a1

Trends in Benzodiazepine Prescribing for Community-Dwelling Seniors in Winnipeg & Manitoba

Crude percent of non-personal care home seniors (aged 75 & older), 2000/01–2011/12

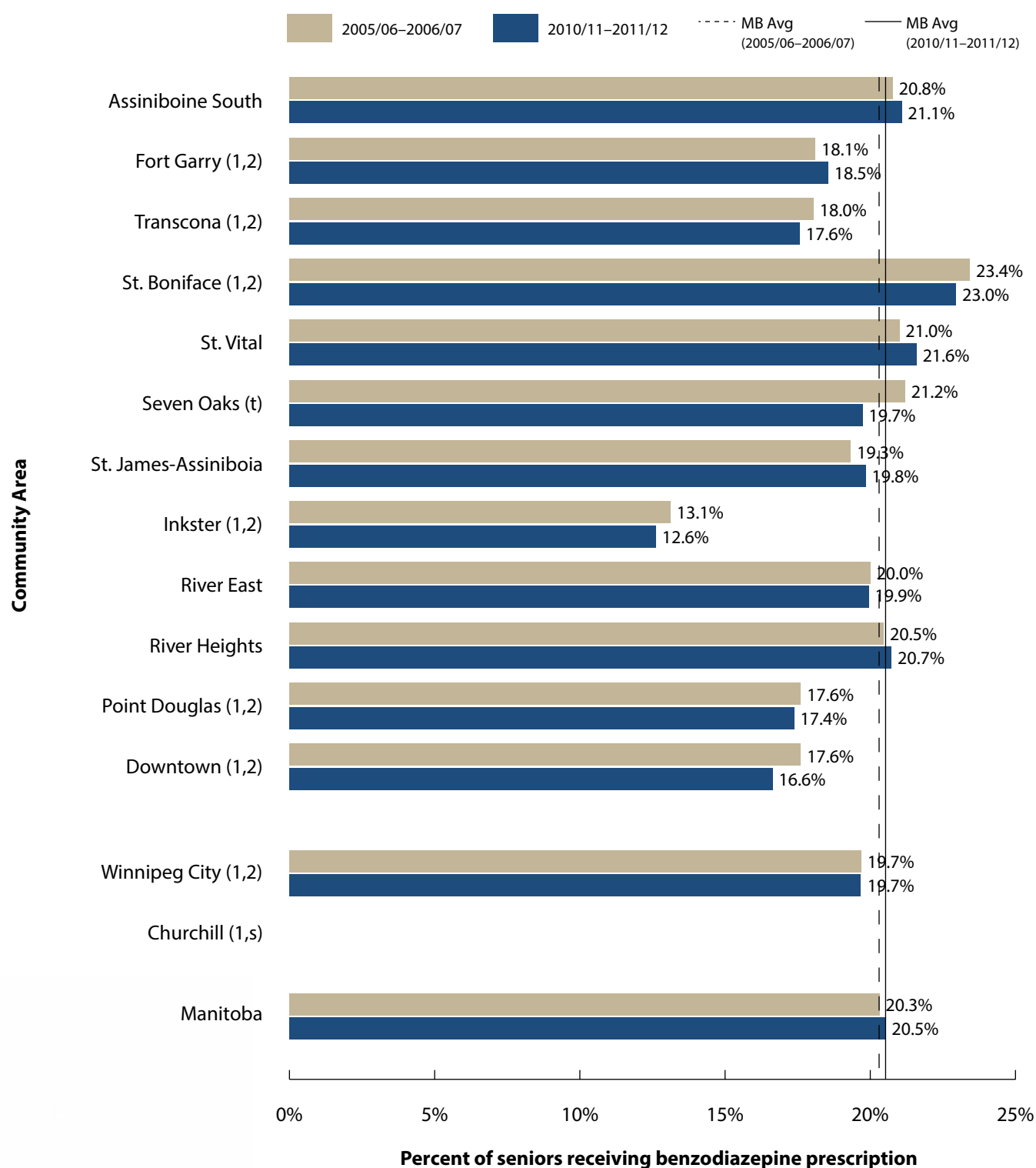


Source: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.5.3.a2

Benzodiazepine Prescribing for Community-Dwelling Seniors by Winnipeg Community Area

Crude percent of non-personal care home seniors (aged 75 and older), 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

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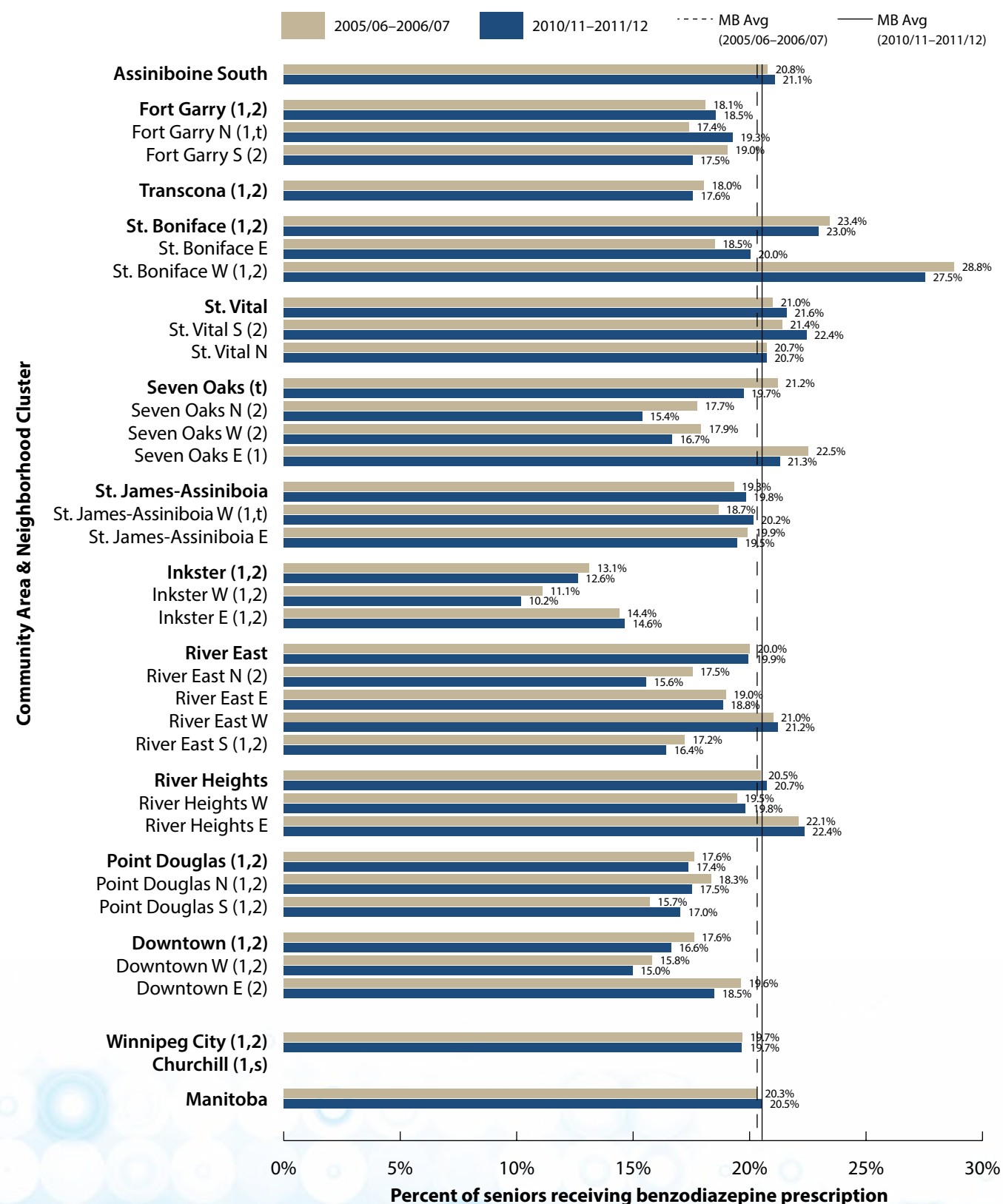
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Figure A5.5.3.a3

Benzodiazepine Prescribing for Community-Dwelling Seniors by Winnipeg Community Area & Neighborhood Cluster

Crude percent of non-personal care home seniors (aged 75 and older), 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

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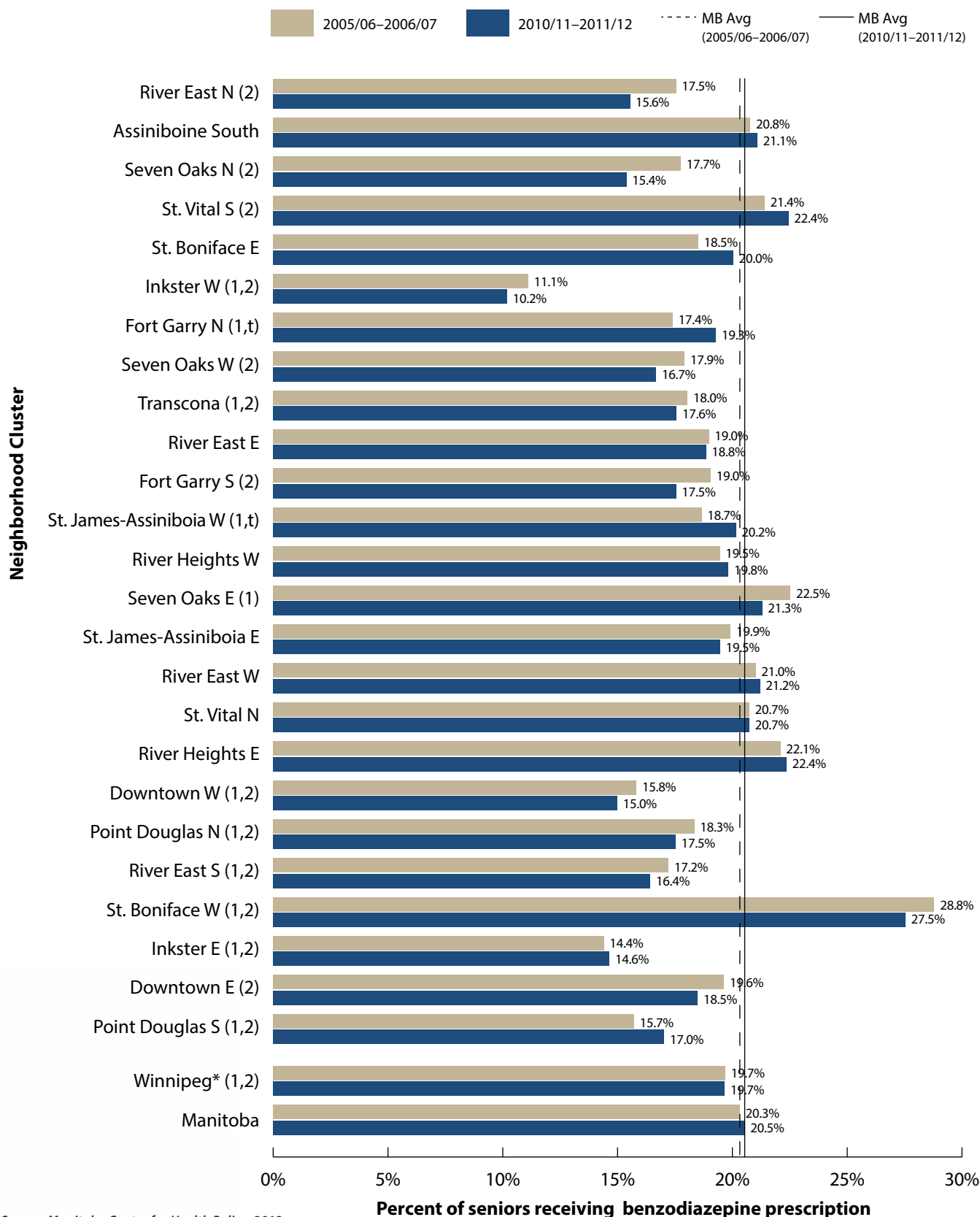
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Figure A5.5.3.a4

Benzodiazepine Prescribing for Community-Dwelling Seniors by Winnipeg Neighborhood Cluster

Crude percent of non-personal care home seniors (aged 75 and older), 2005/06–2006/07 & 2010/11–2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

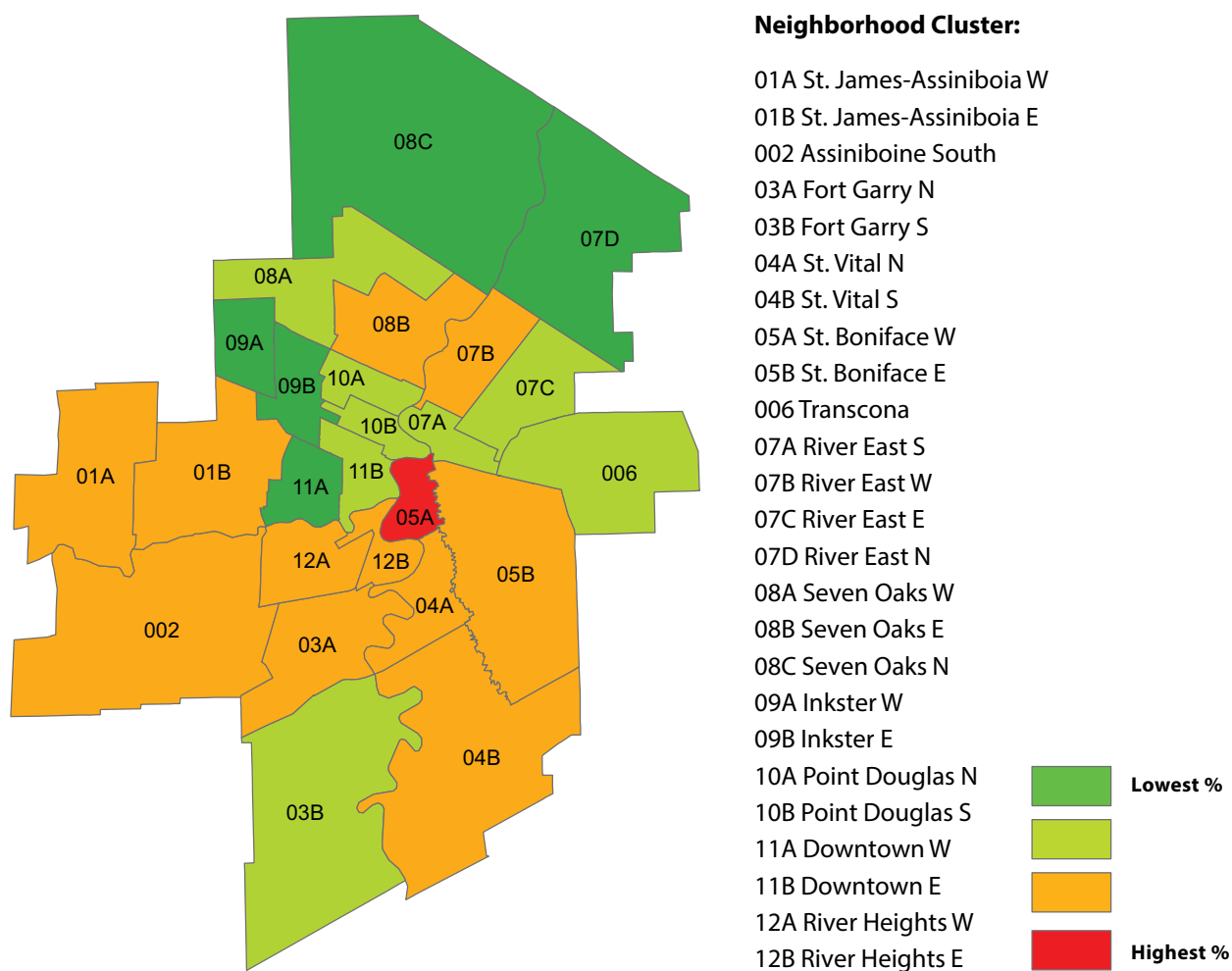
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Benzodiazepine Prescribing for Community-Dwelling Seniors by Winnipeg Neighborhood Cluster

Crude percent of non-personal care home seniors (aged 75 and older), 2010/11–2011/12



Source: Manitoba Centre for Health Policy, 2013



Indicator: Dental Extractions Among Young Children (Under Age 6)

DEFINITION: The number of dental extractions performed on residents under age 6 years. Dental extractions are referred to as a hospital-based procedure for removing teeth of young children with severe tooth decay and requiring the use of anesthesia beyond levels available in a dentist's office (i.e., general anesthesia). Out-of-province procedures were excluded.

NUMERATOR: Number of dental extractions performed on Winnipeg Regional Health Authority (the Region) residents under age 6.

DENOMINATOR: The Region's residents under age 6 as of December 31 of each year (2002–2011).

CALCULATION: (Number of dental extractions performed on the Region's residents under 6 years of age / Number of the Region's residents under 6 years of age) × 1,000. Crude annual proportions were calculated for 2002/03–2006/07 and 2007/08–2011/12.

DATA SOURCE: Manitoba Centre for Health Policy (MCHP), 2013

KEY FINDINGS:

- In 2002/03–2006/07 and 2007/08–2011/12, 7.0 and 6.6 dental extractions per 1,000 children under 6 years, respectively, were performed in the Region; these rates are much lower than the averages of other regions and the province.
- There was a substantial variation across the communities in the Region, with communities in the Region central areas (i.e., Inkster West, Point Douglas South, Downtown West, and Downtown East) having the highest number of dental extractions per 1,000 children.
- Children living in lower income communities had more dental extractions than those living in higher income communities: During 2007/08–2011/12, the number of dental extraction in the lowest income CA (Point Douglas South) was 6.1 times that of the highest income CA (River East North); and the number of dental extraction for those in the lowest income quintile was 9.1 times that of those in the highest income quintile.

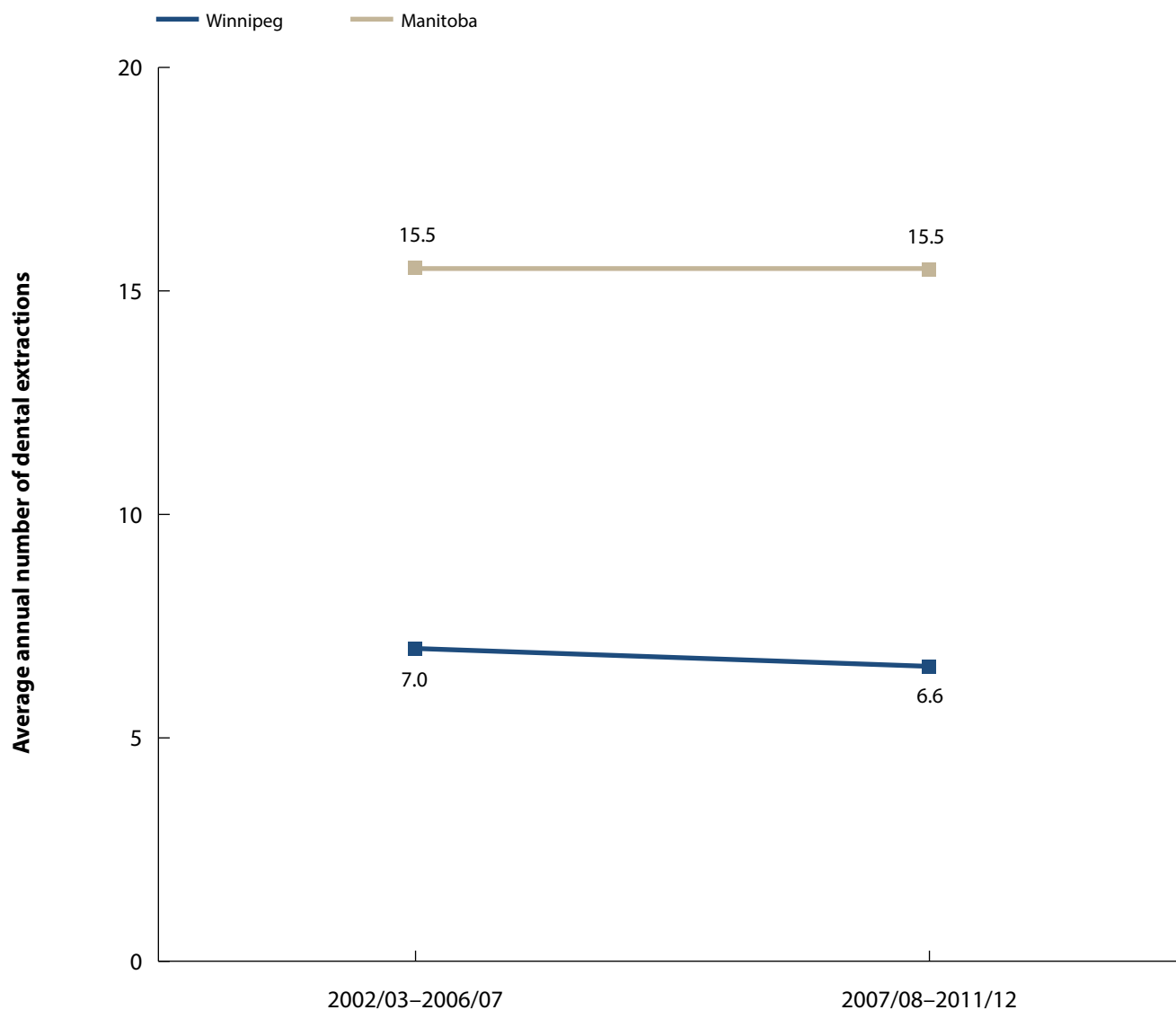
WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- This indicator measures the treatment prevalence of severe tooth decay among young children. The lower number of dental extractions (than the provincial level) in the Region indicates: a) a smaller proportion of children in the Region had severe dental decay; or b) less access to dental extraction surgeries in the Region.

Figure A5.6.1.a1

Trends in Dental Extractions Among Young Children in Winnipeg & Manitoba

Crude average annual dental extraction surgeries per 1,000 children under age 6, 2002/03–2011/12

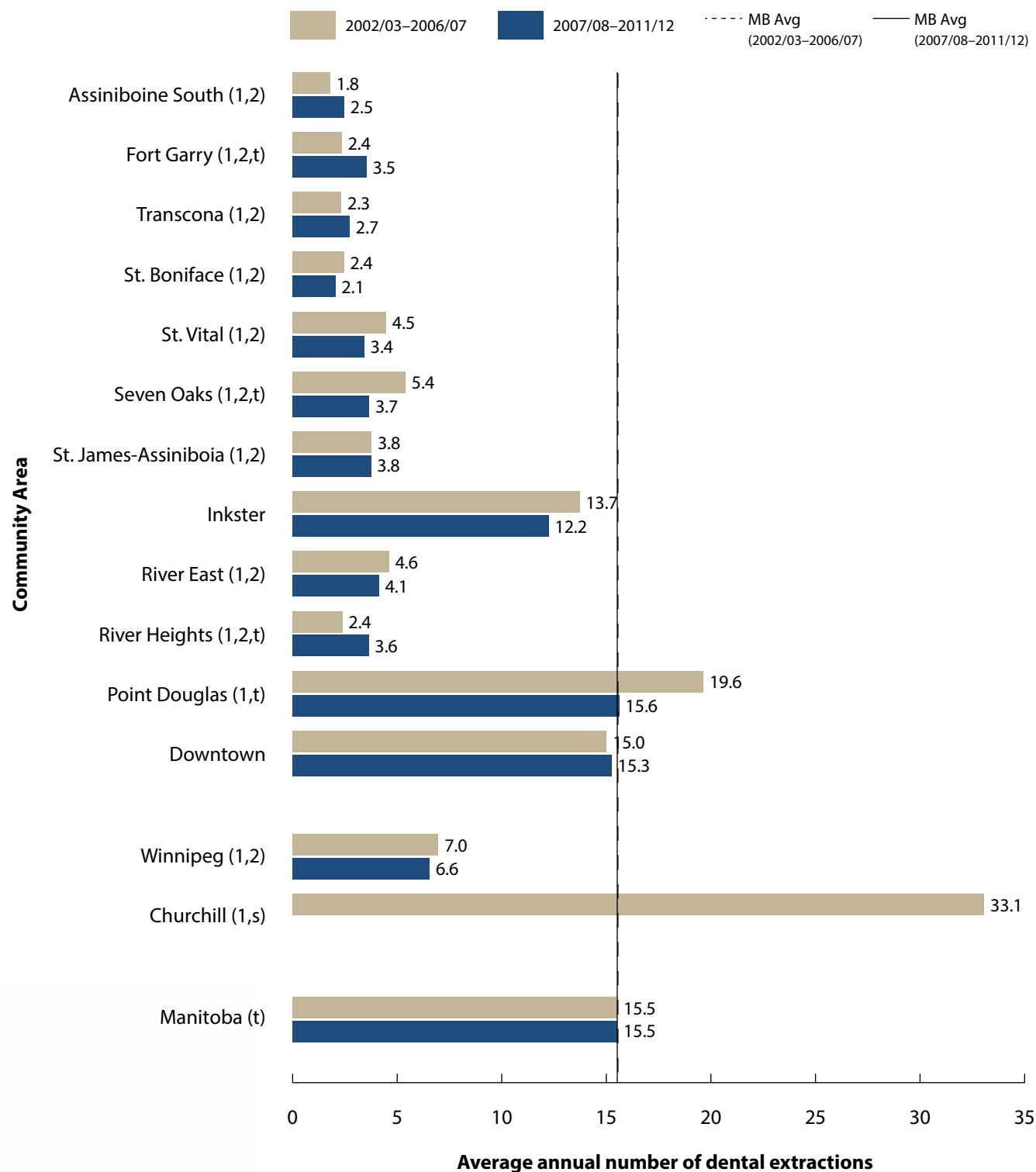


Source: Manitoba Centre for Health Policy, 2013

Figure A5.6.1.a2

Dental Extractions Among Young Children by Winnipeg Community Area

Crude average annual dental extraction surgeries per 1,000 children under age 6, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

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'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

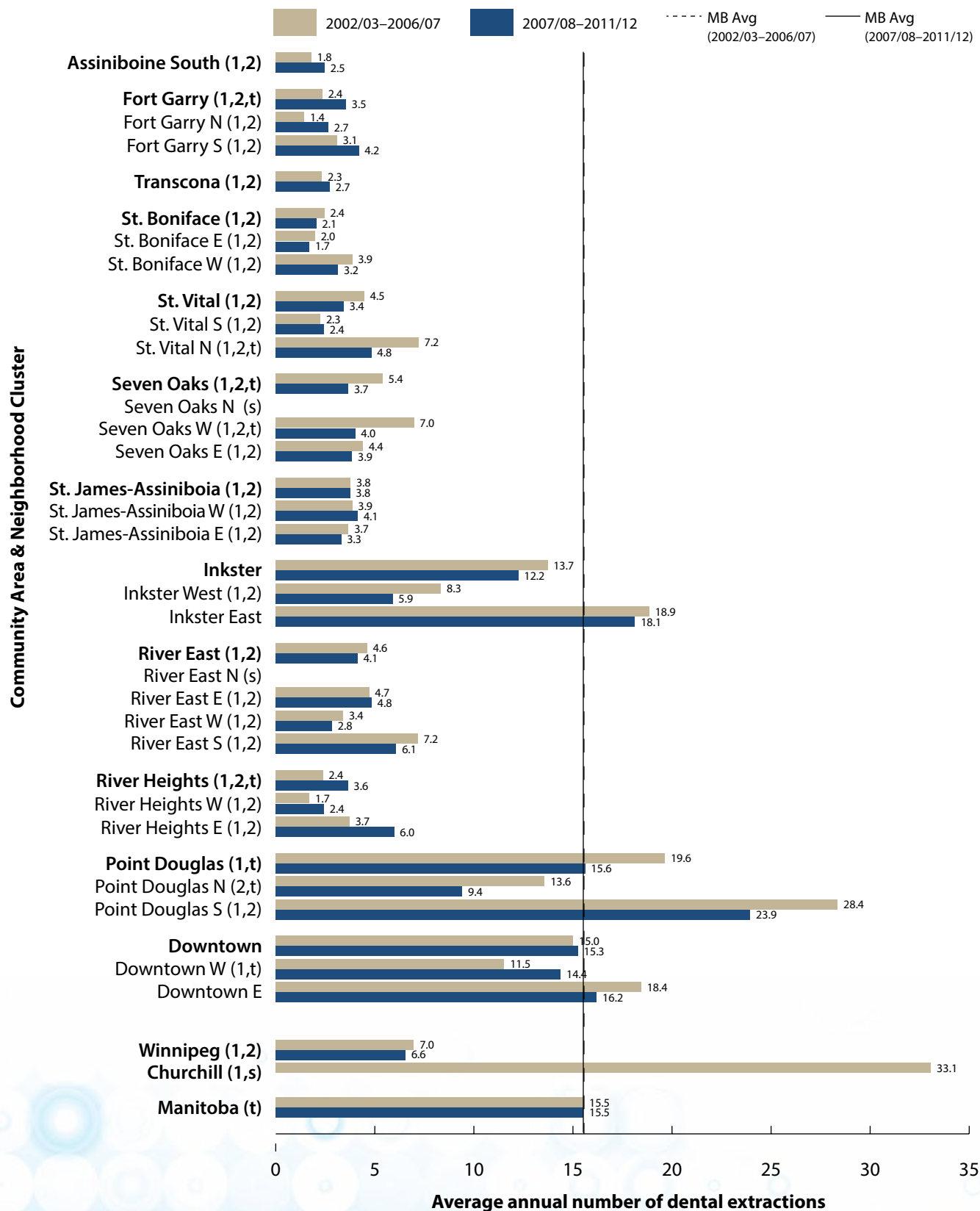
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Figure A5.6.1.a3

Dental Extractions Among Young Children by Winnipeg Community Area & Neighborhood Cluster

Crude average annual dental extraction surgeries per 1,000 children under age 6, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

'2' indicates that in the second time period, the area's rate was statistically different from the MB average at that time

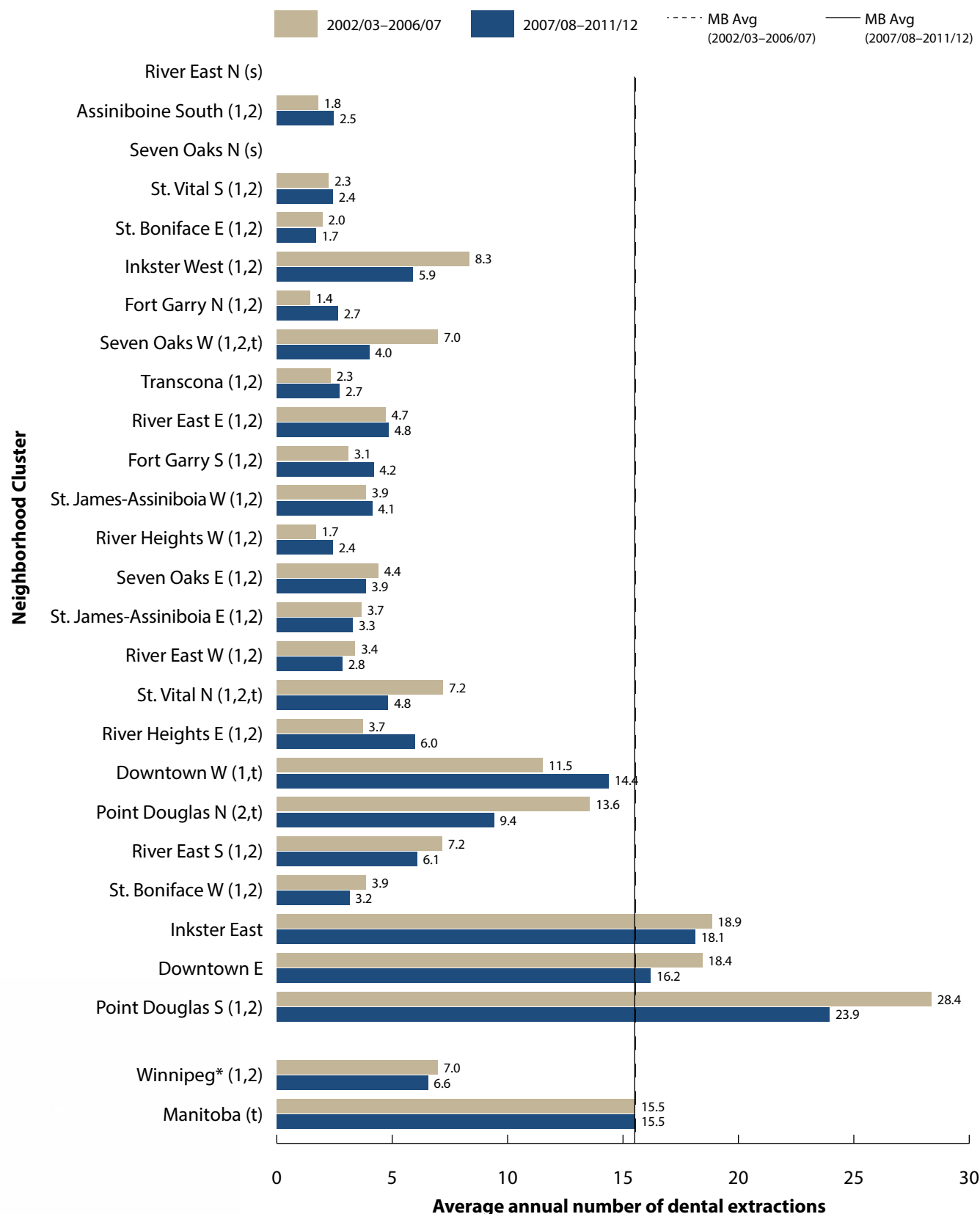
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Figure A5.6.1.a4

Dental Extractions Among Young Children by Winnipeg Neighborhood Cluster

Crude average annual dental extraction surgeries per 1,000 children under age 6, 2002/03–2006/07 & 2007/08–2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

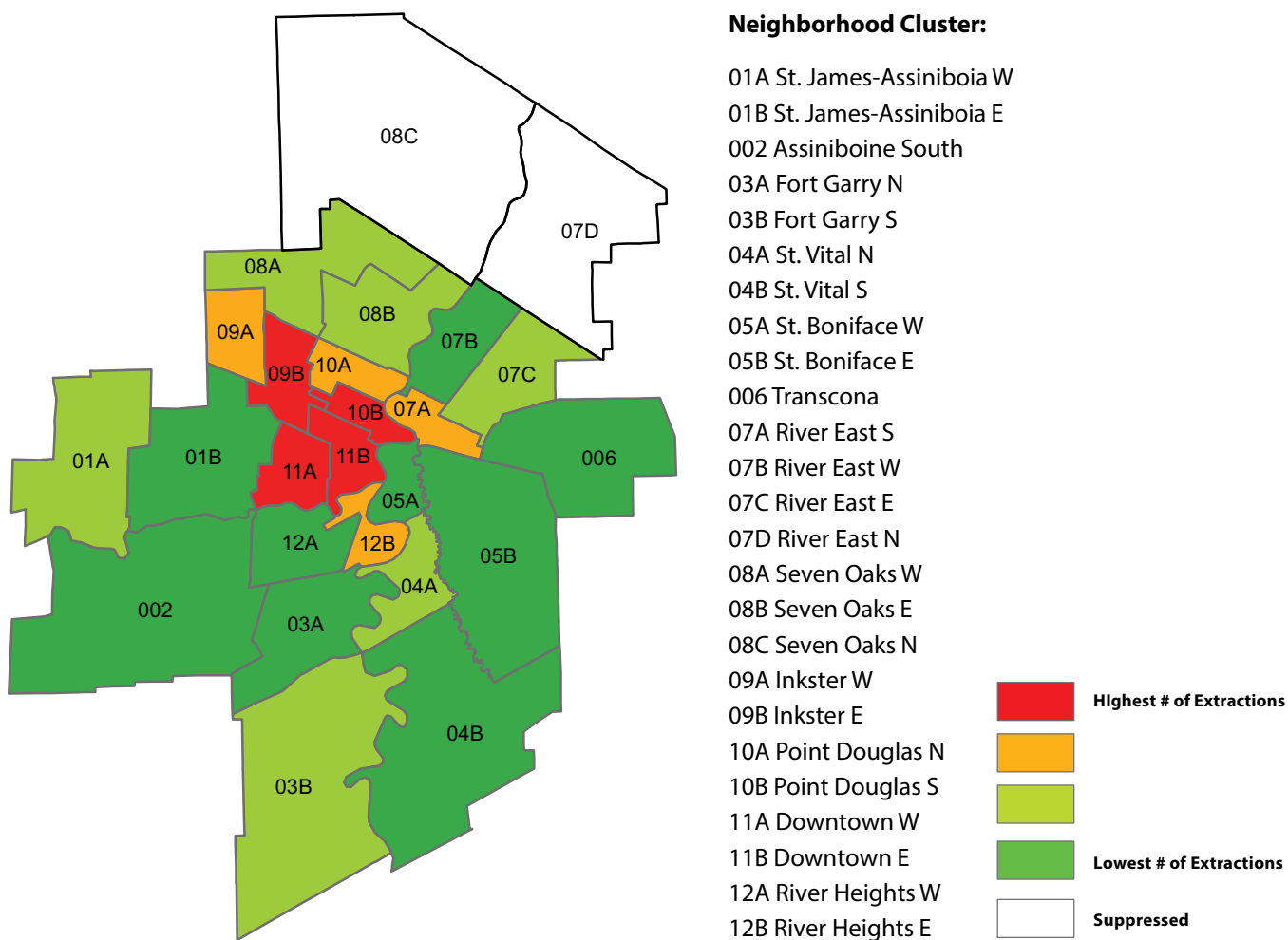
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't' indicates for that area, the change in rates from Time 1 to Time 2 was significant

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Dental Extractions Among Young Children by Winnipeg Neighborhood Cluster

Crude average annual dental extraction surgeries per 1,000 residents under age 6, 2007/08–2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A5.6.1.a1

Health Inequality in Dental Extractions, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2002/032–006/07 # of dental extraction surgeries per 1,000 children under age 6 years	2007/08–2011/12 # of dental extraction surgeries per 1,000 children under age 6 years
Number of Dental Extractions By <i>Community Area (CA)</i> <i>median household income</i>		
Highest income CA (Assiniboine South)	1.8	2.5
Lowest income CA (Downtown)	15.0	15.3
Absolute difference (Lowest income CA – Highest income CA)	13.2	12.8
Ratio (Lowest income CA / Highest income CA)	8.33	6.12
Number of Dental Extractions By <i>Urban Income Quintile</i>	2002/03–2006/07 # of dental extraction surgeries per 1,000 children under age 6 years	2007/08–2011/12 # of dental extraction surgeries per 1,000 children under age 6 years
Highest Urban Income Quintile (U5)	1.4	1.6
U4	2.8	2.3
U3	4.4	4.5
U2	6.9	6.3
Lowest Urban Income Quintile (U1)	16.2	14.5
Absolute difference (U1-U5)	14.8	12.9
Ratio (U1/U5)	11.6	9.06

Source: Manitoba Centre for Health Policy, 2013

Indicator: Diabetes Care - Regular Eye Examinations

DEFINITION: The percentage of persons with diabetes aged 19 years and older who had an eye examination in a given year as defined by a visit to an ophthalmologist or an optometrist.

NUMERATOR: Number of persons with diabetes aged 19 years and older who had an eye examination in a given year.

DENOMINATOR: Number of persons with diabetes aged 19 years and older in the year.

CALCULATION: $\left(\frac{\text{Number of persons with diabetes aged 19 years and older who had an eye examination in a given year}}{\text{Number of persons with diabetes aged 19 years and older in the year}} \right) \times 100$. Crude percentages were calculated.

DATA SOURCES: Manitoba Centre for Health Policy (MCHP), 2009 & 2013

KEY FINDINGS:

- Less than 40% of adults with diabetes in the Winnipeg Regional Health Authority (the Region) had an eye examination, although the percentage increased slightly over time, from 31.7% in 2000/01 to 36.2% in 2011/12.
- There was little variation in percentage across the communities in the Region. The significant change in Churchill needs to be interpreted with a caution due to the small number of residents.
- Persons living with diabetes in high income communities were more likely to have an eye examination: those living in the highest NC (River East North) was 1.66 times more likely to have an eye examination than those living in the lowest income NC (Point Douglas South); and those living in the highest income quintile were 1.24 times more likely to have an eye examination than those living in the lowest income quintile.

WHAT DO THE FINDINGS MEAN TO COMMUNITIES?

- Diabetic eye problems (i.e., diabetic retinopathy, cataract, and glaucoma) are common complications of diabetes and may lead to visual loss or even blindness.
- The Canadian Association of Optometrists recommends that diabetic adults aged 20-64 years have an eye examination every 2-3 years and those aged 65 and over have an examination annually.¹
- However, only two thirds of adults living with diabetes in Canada had the examination within the past two years and Manitoba had the lowest percentage (49%) in 2007.²

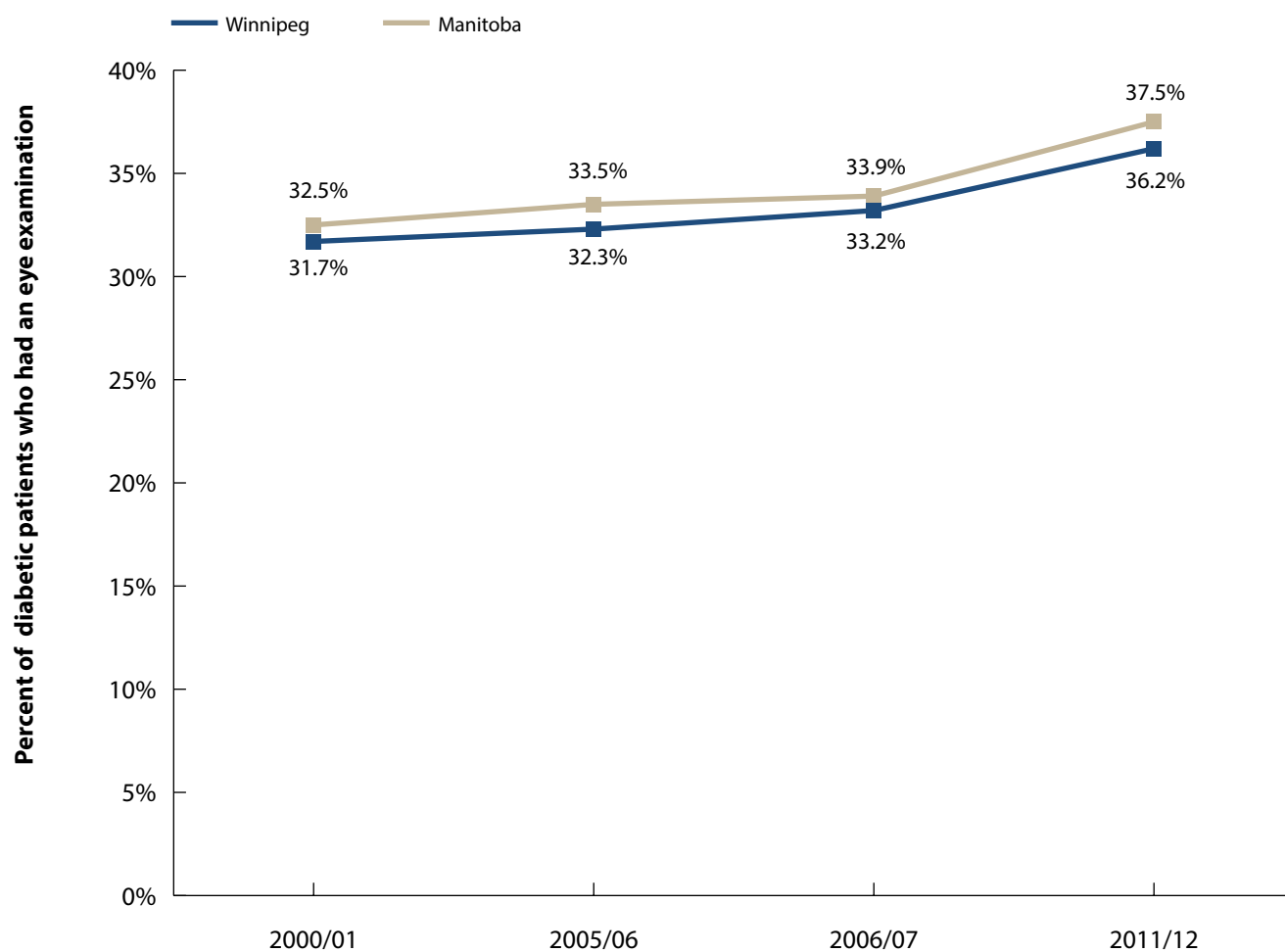
¹ Best G., Dennis M., Lee R., Smit H, Hudson C. *Care of the Patient with Diabetes: A Core Document of the Canadian Association of Optometrists*. Ottawa, 2008.

² Canadian Institute for Health Information. *Diabetes care gaps and disparities in Canada*. Ottawa, 2009.

Figure A5.6.2.a1

Trends in Diabetes Care: Regular Eye Examinations in Winnipeg & Manitoba

Crude percent of residents aged 19 and older with diabetes who had an eye examination, 2000/01–2011/12

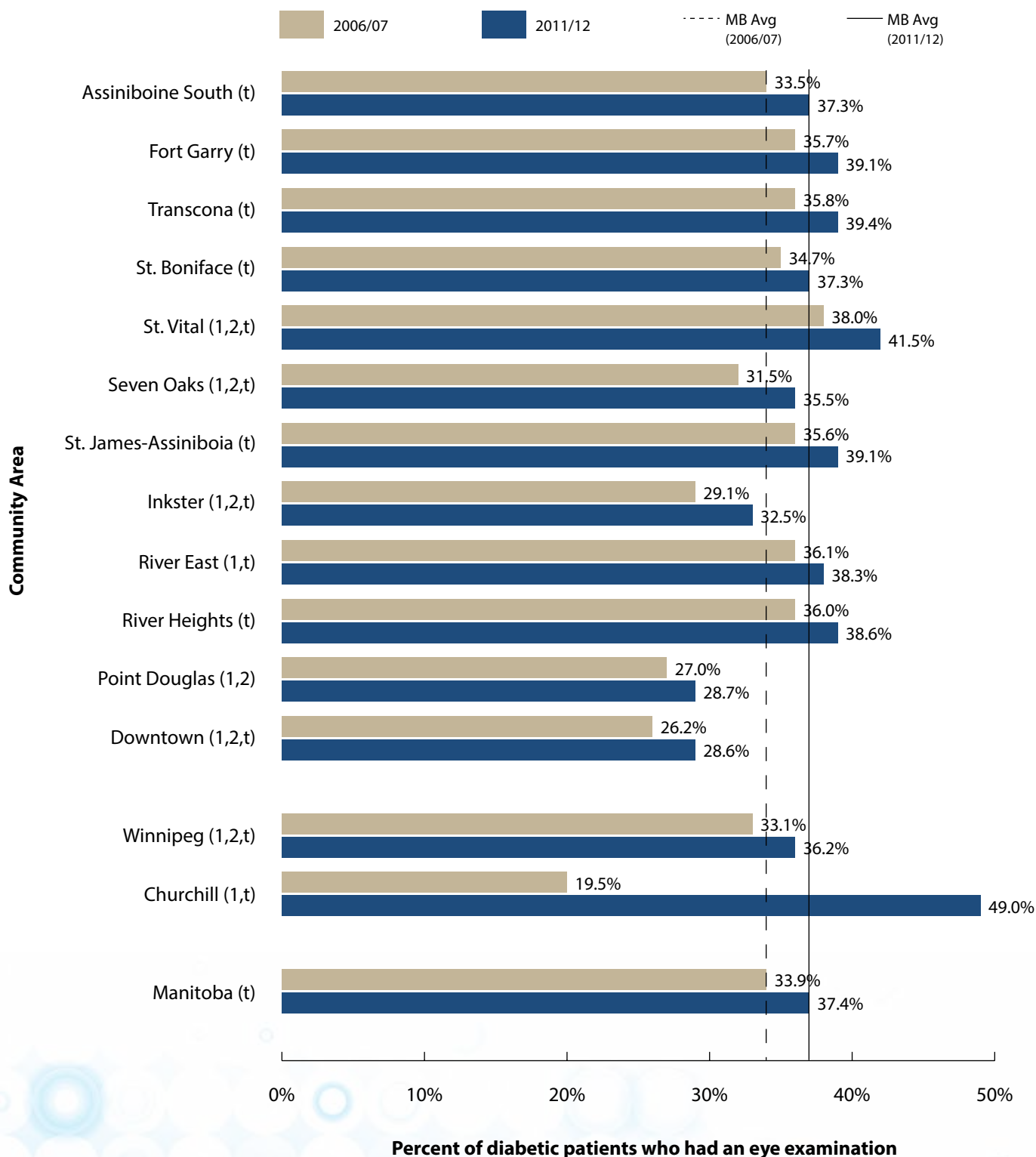


Source: Manitoba Centre for Health Policy, 2009 & 2013

Figure A5.6.2.a2

Diabetes Care: Regular Eye Examinations by Winnipeg Community Area

Crude percent of residents aged 19 and older with diabetes who had an eye examination, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

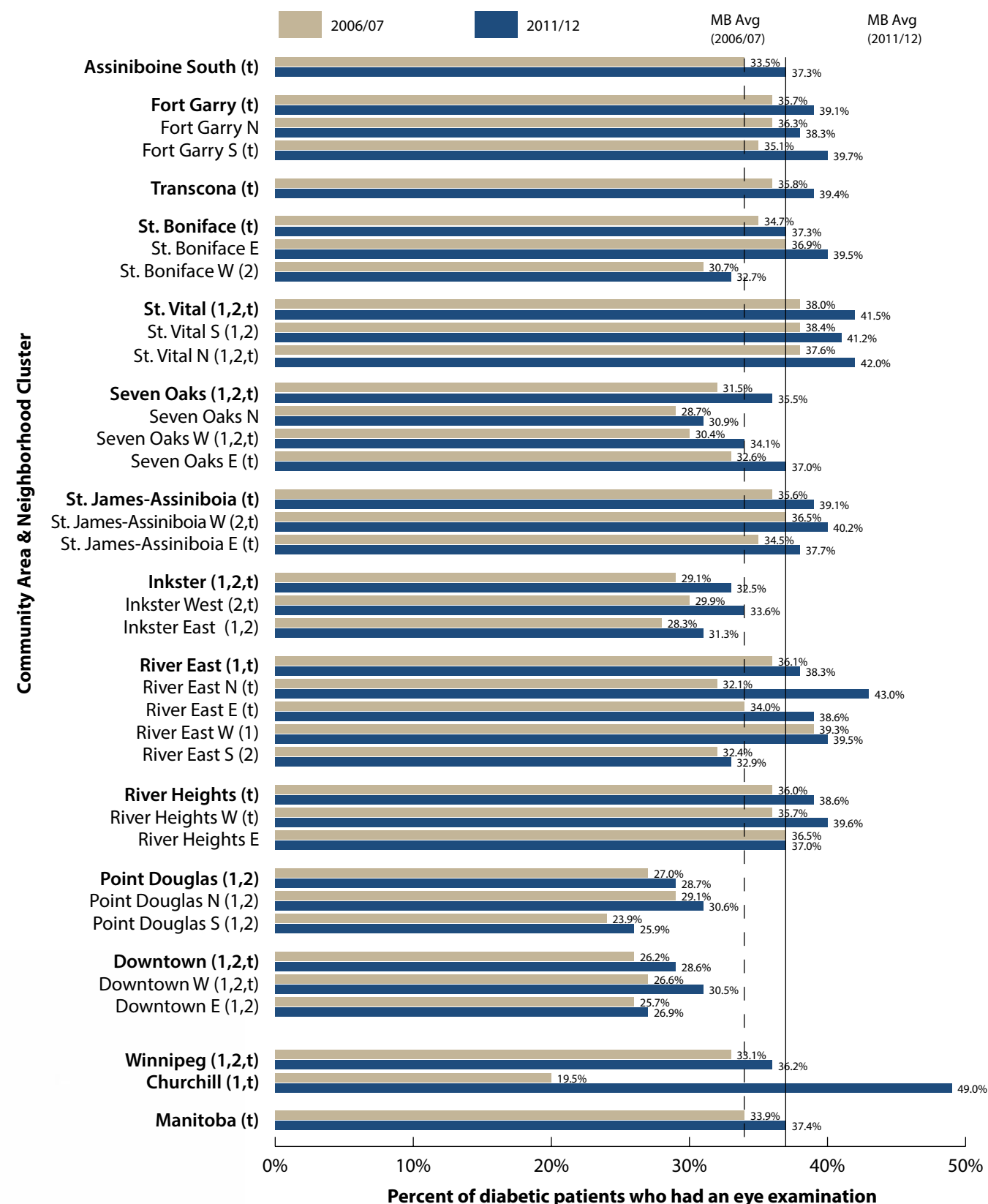
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Figure A5.6.2.a3

Diabetes Care: Regular Eye Examinations by Winnipeg Community Area & Neighborhood Cluster

Crude percent of residents aged 19 and older with diabetes who had an eye examination, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

'1' indicates that in the first time period, the area's rate was statistically different from the MB average at that time

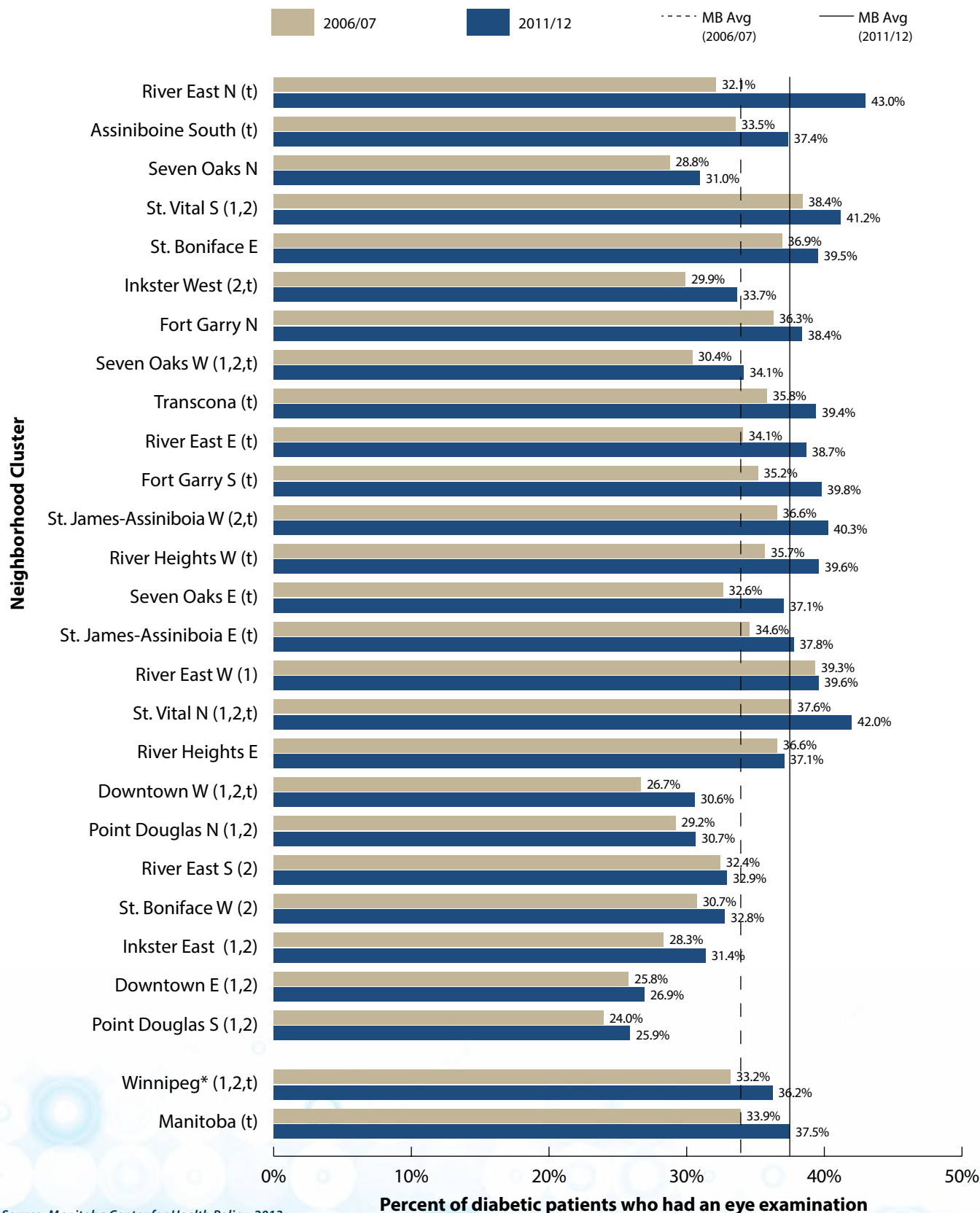
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Figure A5.6.2.a4

Diabetes Care: Regular Eye Examinations by Winnipeg Neighborhood Cluster

Crude percent of residents aged 19 and older with diabetes who had an eye examination, 2006/07 & 2011/12



Source: Manitoba Center for Health Policy, 2013

*Excluding Churchill

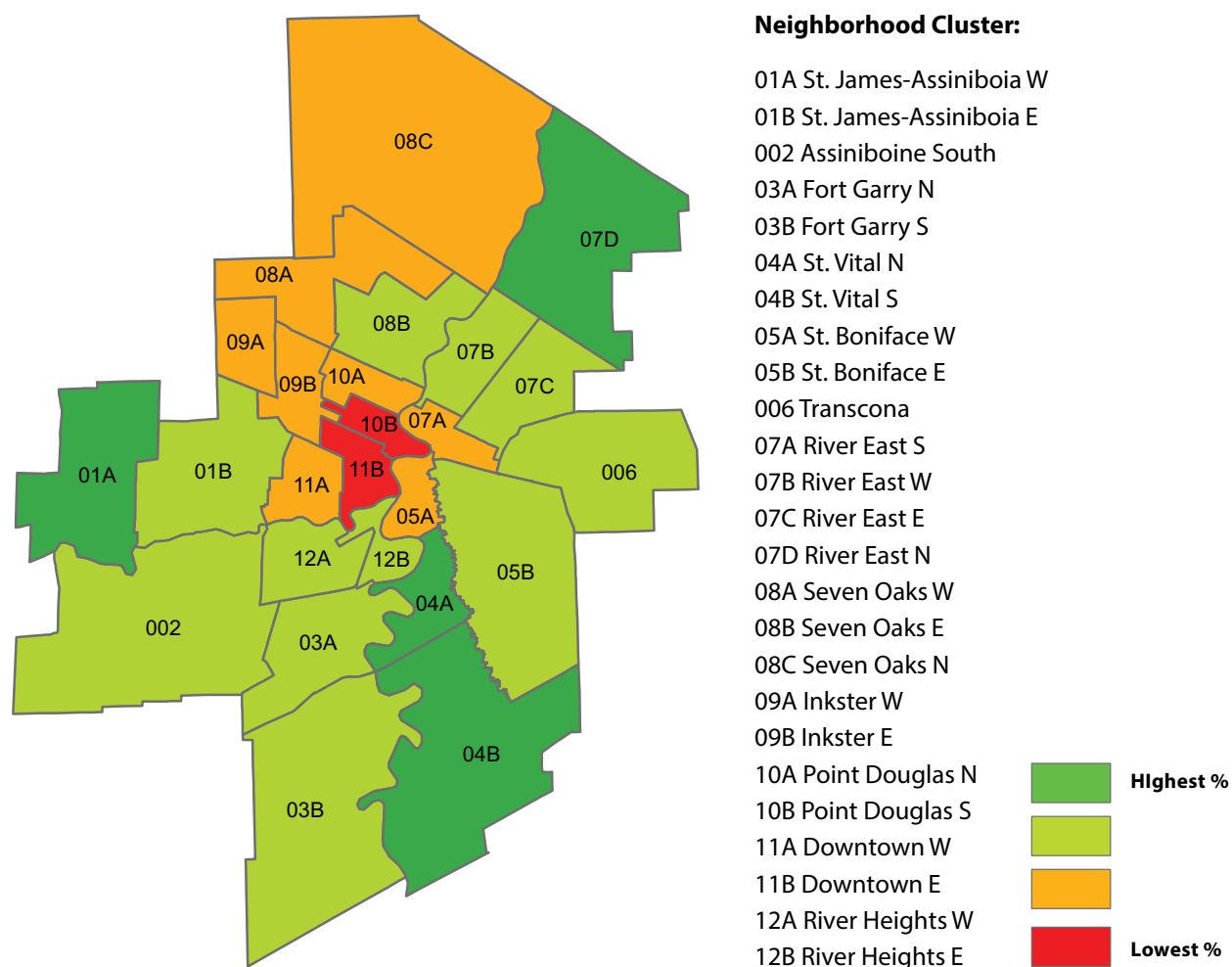
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Diabetes Care: Regular Eye Examinations by Winnipeg Neighborhood Cluster

Crude percent of residents aged 19 and older with diabetes who had an eye examination, 2011/12



Source: Manitoba Centre for Health Policy, 2013

Table A5.6.2.a1

Health Inequality in Diabetic Patient Eye Care, by Median Household Income & Urban Income Quintile

Health Inequality Measures	Time Period	
	2006/07 % diabetic patients aged 19+ who had an eye examination	2011/12 % diabetic patients aged 19+ who had an eye examination
Percent of diabetic patients aged 19 and older who had an eye examination By <i>Neighborhood Cluster (NC) median household income</i>		
Highest income NC (River East N)	32.1%	43.0%
Lowest income NC (Point Douglas S)	24.0%	25.9%
Absolute difference (Highest income NC – Lowest income NC)	8.1%	17.1%
Ratio (Highest income NC / Lowest income NC)	1.34	1.66
Percent of diabetic patients aged 19 and older who had an eye examination By <i>Urban Income Quintile</i>		
Highest Urban Income Quintile (U5)	37.1%	39.5%
U4	36.4%	39.8%
U3	35.4%	39.1%
U2	32.9%	36.7%
Lowest Urban Income Quintile (U1)	31.5%	31.8%
Absolute difference (U5-U1)	5.6%	7.7%
Ratio (U5/U1)	1.18	1.24

Source: Manitoba Centre for Health Policy, 2013

ACKNOWLEDGEMENTS

Community Health Assessment (CHA) is an ongoing activity of the Winnipeg Regional Health Authority (WRHA) and is directed by a WRHA-based Advisory Committee. The purpose of CHA is to identify community health assets and issues, set health objectives and monitor progress towards those objectives. WRHA planners, program teams and others regularly use the information produced by CHA to identify priorities and to develop and support action plans in their daily work. This report is but one part of the CHA process and its production relies on the efforts of many people, including those listed below (with apologies to those whose names have been inadvertently omitted).

First and foremost, we thank all of those who work outside the WRHA and whose efforts were fundamental to the completion of this report:

- Manitoba Health and Healthy Living (MHHL) members: Heather Sparling, Della Beattie, Sonia Busca Owczar, Nathan Hoeppner, Marc Silva, Patricia Caetano, Lorraine Dacombe Dewar and Deborah Malazdrewicz.
- Manitoba Centre for Health Policy researchers and staff: Randy Fransoo, Patricia Martens, Marni Brownell, Elaine Burland, Heather Prior, Charles Burchill, Jennifer Schultz and the Need to Know Team
- The Community Health Assessment Network (CHAN) involves representatives from every Regional Health Authority in Manitoba. A subcommittee of CHAN derived the master list of required indicators for CHA reporting to MHHL. We thank all of these participants as well.

Many other persons within the WRHA worked behind the scenes to write, edit and offer comment on the format and content of the CHA Report (2014). A WRHA Medical Officer of Health (MOH), Dr. Salah Mahmud, was involved in the drafting of the master list of required indicators for CHA reporting. In addition, members of the CHA Advisory Committee assisted with early reviews of the text and tables: Dr. Lawrence Elliott (MOH), Wayne Clark (Aboriginal Health Services), Dr. Christopher Green and Debbie Nowicki (Population and Public Health) and Dr. Ingrid Botting (Primary Care).

In addition, the following members of the CHA Advisory Committee shepherded the production of the CHA along the way: Dan Skwarchuk, Trish Bergal, Heather Forrest, Sandra Fedirchuk, Philip Jarman, Leona Lane and Linda Norton. A special ‘shout out’ to those who helped us with our community work—Colleen Schneider and Jeanette Edwards. Finally, we could not have actually produced the report without capable assistance from Communications: thank you Mike Daly.

We also appreciate the efforts of the staff of the Evaluation Platform, Centre for Healthcare Innovation (CHI) and the Winnipeg Regional Health Authority (WRHA) who helped to produce the report by preparing tables and charts, reviewing and editing the indicators and supporting text: Colleen J. Metge (Director), Xibiao Ye, Sunita B. Bapuji, Olga Norrie, Catherine Charette, Yang Cui, Judy Dyrland, Ashley Struthers, Paul Beaudin and Shannon Winters.

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Winnipeg Regional Health Authority

COMMUNITY HEALTH ASSESSMENT 2014



Winnipeg Regional
Health Authority
Caring for Health

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santé de Winnipeg
À l'écoute de notre santé