Population Health Information System
1991/92

Population Health:
Health Status Indicators
Volume II: Tables and Figures

January 1994

Manitoba Centre for
Health Policy and Evaluation
Department of Community Health Sciences
Faculty of Medicine, University of Manitoba

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The Manitoba Centre for Health Policy and Evaluation

The Manitoba Centre for Health Policy and Evaluation (MCHPE) is a unit within the Department of Community Health Sciences, Faculty of Medicine, University of Manitoba. The MCHPE is active in health services research, evaluation and policy analysis, concentrating on using the Manitoba health data base to describe and explain patterns of care and profiles of health and illness.

Manitoba has one of the most complete, well-organized and useful health data bases in North America. The data base provides a comprehensive, longitudinal, population-based administrative record of health care use in the province.

Members of the MCHPE consult extensively with government officials, health care administrators, and clinicians to develop a research agenda that is topical and relevant. This strength, along with its rigorous academic standards and its exceptional data base, uniquely position the MCHPE to contribute to improvements in the health policy process.

The Centre's researchers are widely published and internationally recognized. They collaborate with a number of highly respected scientists from Canada, the United States and Europe.

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EXECUTIVE SUMMARY

The Population Health Information System consisting of 5 modules, is designed to focus on health care utilization and health status to examine how efficiently a health care system produces health in a population. This module contains the population health status assessment.

For this report, we have developed 102 health status indicators from administrative data namely vital statistics death data, hospital discharge summaries, and physician fee claims. These indicators capture various dimensions of community health ranging from mortality/morbidity from cancer, injuries and chronic diseases to disability among youth and medical conditions associated with functional limitations and restricted activity days among the elderly. We also include a series of indicators which relate to the impact of medical treatment, outcomes against which the use of resources can be evaluated (Health Care System Sensitive Indicators).

Data is presented for fiscal year 1991/92 and by Manitoba regions as defined by Manitoba Health (8 regions). The Standardized Mortality/Morbidity Ratio (SMR) was computed for all indicators; this technique eliminates differences in population across regions due to age and sex distributions and uses the provincial rate for each indicator as the standard (the provincial rate is equal to one). We determined if differences we saw were not due to chance variations by using a statistical measure which ensures that we are confident of the true rate 99 out of 100 times.

We have examined these indicators using various approaches and summary measures and found persistent patterns even after considering the effects of differential hospitalization and physician utilization for Winnipeg and non-Winnipeg residents. The residents for Thompson and Norman regions appear to have the poorest health as measured by the total number of indicators above the provincial average, as well as the number of statistically significant indicators above the provincial average especially for mortality and hospitalization for conditions relating to injuries, chronic diseases and infectious diseases. Differences in health status were seen for the more "serious" indicators relating to mortality and hospitalization.

There were no consistent patterns found upon examining variations in visits to physicians for a variety of conditions; rates for the various regions clustered around provincial averages despite differences in physician/population ratios.

Despite differential utilization patterns between Winnipeg and non-Winnipeg residents, the range of health status reveal true differences depending upon geographical residence in the province. It is not the purpose of this report to explain these differences but merely to report them. Future reports in this series will examine regional differences over time as well as smaller geographical units to determine if patterns of differential health persist in the longer term.

POPULATION HEALTH: HEALTH STATUS INDICATORS, 1991/92 VOLUME II: TABLES AND FIGURES

Introduction to the Population Health Information System

In January 1991, the Manitoba Centre for Health Policy and Evaluation (MCHPE) was established at the University of Manitoba to provide the Manitoba Department of Health with research-based analyses, evaluation, and policy options. The researchers agreed to undertake several specific projects each year. In addition, they agreed to develop a health information system for the province.

The Population Health Information System (PHIS) is designed to focus on the link between health care utilization and health, and to make it possible to examine how efficiently a health care system produces health in a population. We have attempted to develop an information system to facilitate rational decision making and ultimately to permit shifting discussions from demand for health care to demand for health. The system is population-based, designed to track the health status and health care use of residents of given regions (regardless of where such use takes place); as distinct from examining use of clinical care for individual patients by specific providers. The PHIS also identifies the socioeconomic characteristics of regional residents since socioeconomic status has long been linked to poorer health outcomes and greater need for health care.

The Population Health Information System will produce separate reports for each of the modules outlined below. Each module will be presented in two volumes and will contain a summary and key of findings, as well as an appendix with more details. This report contains the Population Health Status assessment.

MODULES OF THE POPULATION HEALTH INFORMATION SYSTEM

Population Health: Health Status Indicators
Socioeconomic Characteristics
Utilization of hospital resources
Utilization of personal care home resources
Utilization of physician resources

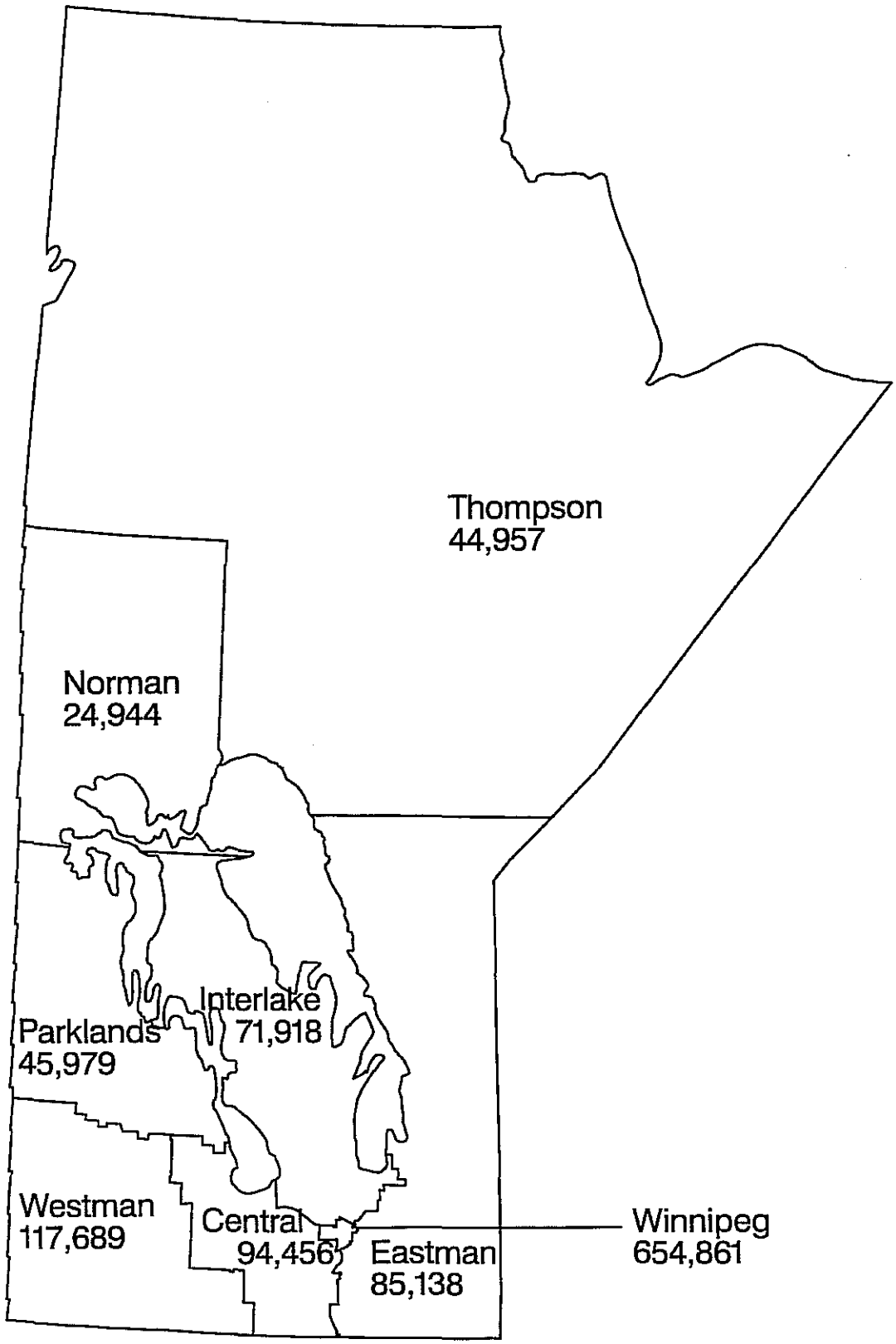
We intend this first report of the PHIS to have limited distribution, primarily to obtain comment and feedback. Thereafter the reports will be distributed to a wider audience. Subsequent versions of the system will include several years of data; patterns persisting through time will be of most interest. We use multiple independent indicators and only draw conclusions when several point in the same direction. The data represent usage for the entire Manitoba population at one point in time. The smaller population of some regions (specifically Thompson, Parkland and Norman) must be acknowledged (Figure A); conclusions drawn form the data from these regions must remain appropriately tentative.

The first volume of the Population Health: Health Status Indicators Module contains the highlights of the analysis. Volume II of the module contains more extensive tables and figures.

Figure A

Regional Populations

Dec 31, 1991



POPULATION HEALTH: HEALTH STATUS INDICATORS MODULE

Introduction

For this report, we have developed health status indicators using three different sources; from Manitoba Health hospital discharge diagnoses, and the diagnoses associated with each physician visit, and from Vital Statistics, death information (see Appendix A for a compete listing). This project has been restricted to indicators that were developed using administrative data. Using administrative data means that many of the "lifestyle" and behaviourial factors (such as smoking, diet and exercise) recommended in the literature cannot be readily assessed by this method. However, some of the consequences of such behaviours can be included (for example, death or hospitalization for lung cancer) and medical conditions most associated with restricted activity days or functional limitations are included. Some potentially useful indicators were not included due to small numbers of events.

Using administrative data to assess health status has the major advantage over surveys in that the overview of health status can be readily repeated over time (e.g. annually) and can be extremely useful to supplement the more traditional health surveys which are extremely resource intensive and usually take several years for the appearance of results. As well surveys of the population such as the Canada Health Survey usually do not sample sufficient numbers of persons from the various regions of Manitoba so that only estimates for the entire province are available. The method we are using here allows us to examine differences between the regions of the province.

While mortality is widely accepted as a measure of assessing the health of communities, utilization of health services data as a means of assessing health status has tended to be secondary or complementary to survey data. We have demonstrated in several studies that administrative data perform well in assessing health status (Young et al 1991, Roos 1989, Mossey & Roos 1987). In Manitoba persons not visiting physicians over the course of the year tend to be well (Shapiro & Roos 1985). However, since utilization is influenced by factors other than health needs (supply of hospital beds being one example), we have been conservative when calculating utilization-based measures of health status. Indicators are grouped and summarized separately by source of data, that is, those developed from cause of

death records are analyzed separately from hospital or physician use. As well, all utilization measures are individual-based, not discharge or contact based. For example, we calculate rates of persons hospitalized for diabetes, not admission rates for diabetes.

As Patrick and Bergner (1990) point out, routine data sources are limited or nonexistent for assessing community health status. They recommend the reorganization of data which is already available such as the measures of sentinel health events from administrative data. The U.S National Health Objectives for 1990 use health care utilization in their assessment of health status (Andersen et al 1987). As well the Directors of the WHO Non-communicable Disease Collaborating Centres and Key Officials (1993) recommend the use of administrative databases to help in the monitoring of chronic diseases in various countries. We hope that this module of the Population Health Information System will make a major contribution to this literature and demonstrate the utility of using administrative data for the determination of population health status.

METHODS

We have developed 102 separate indicators of health status which include various aspects of community health such as mortality/morbidity from cancer, injuries and chronic diseases. In addition, we focus on disability among youth and those conditions associated with poor functional status among the elderly (Pope 1988). We also include a set of indicators which relate to the impact of medical treatment outcomes against which the use of resources can be evaluated. These include both mortality-based and hospitalization-based measures such as deaths amenable to medical treatment (Charlton 1983) and avoidable hospitalizations (Weissman et al 1992). See Definitions and listings in Appendix A.

The 102 indicators which form the basis of this analysis are derived from a series of articles and reports from the literature which concentrate on the health of communities and/or populations. Since there are many indicators which are common to several of these reports, we used a set of criteria for selection as follows: 1. The item had to have some credibility, that is, it is considered to be a useful or recommended indicator in a previous major report. 2. Since the indicators used in the health information system are all based upon administrative data, an item had to be included in one of the Manitoba administrative datasets. 3. The item had to occur at a fairly high rate so that there would be sufficient numbers in most small regions. 4. The items had to have some discriminating power, that is, there had to be differences in the distribution of the item across regions. 5. There had to be a distinct unambiguous code in the administrative dataset for the condition. All 102 indicators met the criteria for 1 and 2. For criteria 3 and 4, most indicators occurred at a frequent rate among the Manitoba population. However, for some regional breakdowns, the numbers were small. For very infrequent, but important indicators such as mortality from AIDS, these items are included in the tables in Volume II, but not included in the graphical presentations. For criteria 5, the coding for hospitalizations was not problematic since hospitals utilize 5 digit codes for diagnoses associated with the hospital visit. However, for physician visits, coding is less specific requiring grouping of some diagnoses or exclusion of others. In the report, indicators are grouped into six major categories: I. Demographic profile, II. Low Birth Weight, III. Health Care System Sensitive Indicators, IV. Mortality indicators: population and cause-specific, V. Hospitalization indicators, VI. Physician visit indicators. Each of the major categories is further subdivided into finer categories, for example, mortality indicators include

deaths due to injuries, chronic diseases, and cancer. (See Appendix A for a complete listing).

The Population Health module of the Population Health Information System presents the health status of Manitobans based on data for the fiscal year 1991/92 (April 1, 1991 to March 1992). For this report (March 31), claims for services provided during the year 1991/92 were included. Since the number of deaths among residents is small for some regions, in order to have a better assessment of mortality rates, two years of vital statistics data were used (calendar years 1990 and 1991). Subsequent reports will analyze several years of data to assess trends.

All comparisons are made across the Manitoba regions as defined by Manitoba Health, with Winnipeg considered as one region. Information about the region of residence was obtained from the Manitoba Health Registration File, except in the case of Status Indians, for whom postal code information from hospital discharge abstracts or physician claims was used. Since the large numbers of Winnipeg residents strongly affect the provincial averages, an aggregate of non-Winnipeg regions was also developed.

The numerator for all rates was determined by counting individuals rather than the number of admissions (e.g. number of persons admitted to hospital for lung cancer) for individuals identified as residents of a specified region. Denominators were based on counts of individuals resident in specific regions as per registry information as of December 31, 1991. The rates of various indicators for the overall population of Manitoba were used as the comparison. Most rates presented in this module have been age and sex adjusted; a mathematical procedure which removes the effects of different population distributions in influencing death rates and occurrences of specific illnesses. After adjusting for age and sex differences, the resulting rates can then be more directly compared.

While various rates have been used in this report, we primarily refer to the Standardized Mortality/Morbidity Ratio (SMR) (also called the Adjusted Mortality Ratio). The SMR is a widely used method which adjusts for differences in age and sex across regions. Instead of giving an adjusted rate, the SMR gives a ratio, that is a direct comparison with a standard.

Here we use the entire province as the standard. The province's SMR for a condition will always be 1. If a SMR for a particular region for a specific condition is greater than one, then that region's rate for that condition is higher than the provincial average. If the SMR for a particular region is less than one for a given condition, then that region has a lower rate for that condition. Thus a SMR above one implies that a region is less healthy; a SMR below one implies a region is more healthy than the provincial average. An SMR of 1.30 means that the rate in that region for that particular condition was 30% higher than for the province as a whole. SMR's below 1 are equivalent to the inverse of SMR's greater than 1. For example, SMR of 0.5 is equivalent in magnitude to a SMR of 2 and a SMR of 0.33 is equivalent in magnitude to a SMR of 3. In the graphical representations, we have attempted to use a uniform scale for the SMR axis with the values ranging from 0 to 3 unless otherwise indicated.

For graphical presentation in this report we have chosen the Standardized Mortality/Morbidity Ratio (SMR). This is because the SMR allows the easiest comparison with the provincial rates and with all other regions. For each graph, there is a bold line across the value of 1 which represents the rate of that indicator for the province as a whole. Bars for each region below this line represent conditions for which the region has a lower rate than the province. Those bars above the provincial line mean that for that indicator, the rate of the region is higher than the provincial average. Note that for some indicators, there may be a missing bar for a particular region. This means that the rate for that region was equal to the rate for the province. For some regions, for some indicators, there were no events for that indicator. Therefore rates cannot be calculated and the value of the SMR is zero.

In order to interpret the graphical representations to determine the health status of a region, it is necessary to focus on two items: First, whether a rate for a particular region is statistically significant higher or lower than the provincial average. Since some of the events in a particular region occurred infrequently, it is possible that the elevated or decreased rate for that region was due to random fluctuations. In order to determine if this is the case, we used confidence intervals (using the Poisson distribution) to determine if the difference between the regional and the provincial rate was by chance alone. (Snedecor & Cochran, 1980). If a region's rate is statistically significantly higher or lower than the province, then we are 99% confident that the regional rate is different.

Second, we are interested in the profiles and patterns of the indicators whether statistically significant or not. If for a particular set of indicators, the majority are above the provincial average, this indicates that region has a poorer health profile.

The major focus of the Population Health Information System is on describing the patterns of health of residents of a defined area. This population-based approach is fundamentally different from analyses which focus on descriptions of specific illness treated in hospitals or by physicians. This System and this module present analyses intended to describe rather than explain different patterns of health status of Manitobans.

DEFINITIONS

Health: While there is no single agreed upon definition of health, most authorities do agree that health is more than the absence of medically defined diseases. Bergner and Rothman (1987) suggest that "health" consists of several dimensions including a physiological or biological component, the mental state, physical and social functioning, and health behaviours and attitudes. Several instruments to measure health status are currently available and can be broadly classified into those that measure individual health status and those that measure the health of populations or communities. It is with the latter that our Health Information System is concerned. There are several health status indicators currently developed to measure the health of populations and our information system draws heavily from these (National Information Task Force 1991, Klein & Hawk 1992, and other references).

Time period covered: Analyses in this report are based on hospital separations and physician visits reported to Manitoba Health for the 1991/92 fiscal year which fell within the periods April 1, 1991 through to March 31, 1992. Thus hospital admissions occurring in fiscal year 1991/92 where the person was discharged from hospital after March 31, 1992 are not included.

Manitoba population: The definition of Manitoba residents includes individuals who are considered residents by Manitoba Health. This includes persons who reside temporarily out of the province (e.g. seconds attending post-secondary schools out of province) as well as Manitoba residents who have moved to another province (for two months after their move). In addition, new residents arriving from another province (eligible after a two month waiting period) and new Manitobans arriving from another country (eligible for coverage immediately) are also included. Excluded from the Manitoba population are non-residents of Manitoba, armed forces personnel, federal penitentiary inmates and foreign students. For persons who are temporarily out of province, such as vacations or business trips, Manitoba Health routinely records information about hospital care received in such circumstances (but not outpatient care). Visits to physicians in other provinces are included in the files (reciprocal arrangement), as well as any claims by Manitoba residents for reimbursement for visits to foreign physicians.

Population counts are based on the Manitoba Registry as of December 31, 1991. Newborns born after December 31, 1991 are not counted in the population denominators, but are included in the service counts. Persons who died after December 1991 (i.e. January 1, 1992 to March 31, 1992) are counted in the population denominators.

Region of residence: Manitoba is divided by Manitoba Health into eight regions: Thompson, Norman, Parklands, Westman, Eastman, Interlake, Central and Winnipeg. Information about region of residence is obtained from the Manitoba Health Registry file except in the case of Treaty Status Indians. For this group, the postal code associated with each claim is used to determine the region of residence. All utilization are based on the region of residence of the patient, regardless of where the service was received. For example, any services received in Winnipeg by a resident of Norman are counted towards the Norman resident.

Hospitalizations: The number of persons hospitalized (rather than the number of hospitalizations) for the various indicators were determined for residents of each region of the province. Even if a person was hospitalized out of the region, the hospitalization was counted according to the residence of that person.

As noted above, all indicators were derived from three administrative databases from Manitoba health namely Vital Statistics death information, hospital discharge summaries, and physician fee claims. In preparing the Population Health Information System utilization modules, it was noted that hospitalization rates for Winnipeg for all conditions are lower than for non-Winnipeg regions and conversely, that utilization of physician services was higher for Winnipeg residents than for non-Winnipeg residents. Since this report is mainly descriptive in nature, we have not adjusted the hospitalization or physician visit indicators for these utilization differences.

Physician Visits: For this report we examined all ambulatory physicians visits in the province of Manitoba for the 8 regions. An ambulatory visit was defined as any contact by a person with a physician which is billable by the physician to Manitoba Health; physicians in salaried positions also send fee claims to Manitoba Health. Ambulatory visits are classified

into office visits (private office or place of private practice), outpatient/emergency department (in the hospital setting but the patient is not admitted to the hospital), visits to persons in Personal Care Homes, and visits to patients in their own homes. Visits to patients who are in the hospital are not included. In order to receive payment for seeing a patient, the physician submits a fee claim to Manitoba Health. This claim must contain a reason for the visit; these reasons are then converted into numerical codes based on an international coding system--The International Classification of Diseases--Clinical Modification (9th revision). The coding of diagnoses (reason for the visit) from physician visits is less reliable than for hospitalizations. A simplified version of the coding system is used which does not discriminate well for some conditions. Furthermore, a person may visit a physician with multiple problems but only one reason can be recorded in the database. To ensure that a person was more likely to have the actual health condition, in this module, persons were counted if they saw a physician two or more times for one of the conditions of interest.

Proportion of the Population which is at the extremes of age: The population distribution is useful as a health status indicator since it reveals the more vulnerable groups--those at the extremes of age as well as the proportion of the population in the mid years who are financially and otherwise responsible for the care of the other two groups (WHO 1986, National Health Information Taskforce, 1991). The patterns of illness in a region will therefore vary according to the distribution of the population. For example, in a younger region, the influence of injuries will be more pronounced, whereas in an older region there will be more deaths and disability associated with chronic diseases.

Low Birth Weight: The number of infants in a given region whose birth weight was less than 2500 grams as a proportion of all infants born in that region. Miller et al (1989) define low birth weight infants as those weighing less than 2500 grams at birth. Low birth weight may be due to premature delivery or to infants whose weight is low for their gestational age. These infants are at higher risk for developmental delay, physical complications such as birth defects and death. The resource implications for low birth weight infants who spend time in neonatal intensive care units are considerable.

Ambulatory Sensitive Hospitalizations: "Diagnoses for which timely and effective outpatient care can help to reduce the risks of hospitalization by either preventing the onset of

an illness or condition, controlling an acute episodic illness or condition or managing a chronic disease or condition". The conditions were identified and assessed by a panel of U.S. physicians (Billings et al 1993).

Avoidable Hospitalizations: Conditions for which hospitalization can be avoided if ambulatory care is provided in a timely and effective manner (Weissman et al 1992). The conditions which are included in the grouping were those agreed upon by a panel of physicians and represent conditions which represent important health problems, would be affected by appropriate ambulatory care, and have been used in previous studies. The fourteen conditions and their corresponding ICD-9CM codes are given in Appendix A, table 2.

Conditions Amenable To Medical Treatment: Most of the health care expenditures are devoted to illness treatment (physician and hospital) so that it is reasonable to consider the impact that such expenditures have on "health". The list of medical conditions which a panel of physicians have agreed should prevent untimely death originates with a study by Charlton et al (1983) from England and later modified by Poikolainen and Eskola (1986) and Desmeules and Semenciw (1991). The indicators chosen were "intended to be used not to provide a definitive evaluation, but rather to indicate where a problem may exist and to stimulate further inquiry". Age limits were imposed for some of the conditions such as deaths from diabetes, acute respiratory infections and Hodgkin's disease. A list of the medical conditions included are given in Appendix A, table 2.

Single Event Indicator Conditions: List of medical conditions where death, and for most conditions the disease itself are preventable or avoidable so that even one case is considered to be disturbing. (Carr et al 1988, Rutstein et al. 1980). These cases are considered as "sentinel" events whose occurrence is a marker that quality of care may need to be improved. Since the list of indicators included is very lengthy, the reader is referred to Rutstein et al 1976.

Rate Event Indicator Conditions: List of medical (sentinel) conditions which are considered to be of concern when there are sufficient numbers of events (Rutstein et al 1976, Carr et al 1988).

Injury Indicators: Injuries remain the highest cause of death for adolescents and young adults and include unintentional injuries, suicides and homicides. In the U.S., homicide is a major concern. Most injuries are attributable to motor vehicles (McGinnis et al 1992).

Cancer Indicators: In Canada, cancer accounts for about one-quarter of all deaths (Bisch et al 1989) with lung cancer, breast cancer and cancer of the colon accounting for the most cases and deaths (Muir and Sasco 1990). Other cancers such as bladder and kidney are associated with occupational exposures (Anderson et al 1987).

Chronic Disease Indicators: For adults in the mid years, chronic diseases are the main cause of death and disability. These include heart disease, stroke, and diabetes. For the elderly, heart disease, stroke, chronic obstructive lung disease (emphysema), and diabetes are among the leading causes of death (McGinnis et al 1992).

Infectious Disease Indicators: While mortality from infectious disease has declined from the onset of the century, there is still considerable mortality and morbidity associated with infectious diseases. For the elderly, pneumonia and influenza are major causes of mortality and morbidity. Some infectious diseases are influenced by lifestyle, for example, pelvic inflammatory disease, and AIDS.

Indicators of Functional Limitations: For the elderly, in particular, the definition of health must include more than the presence of medical conditions; being able to carry out daily activities, functioning socially, and presence/absence of disability become very important in the assessment in the health of the population of a region (McGinnis et al 1992). Four of the most widely used health status measures which are used to assess social functioning are perceived health status (PHS), role limitations (RL), restricted activity days (RAD) and functional limitations (FL). These items are usually derived from interviewing persons in the population. In a recent study, Pope (1988) used data from a large U.S. interview study (the National Medical Care Utilization and Expenditure Study, 1980) which asked questions about the four items (PHS, RL, RAD, FL) as well as a list of medical problems a person may have had. He was then able to compare the medical problems with the four functional assessment items. Using a sophisticated statistical technique, Pope derived the most common medical conditions associated with each of the four functional assessment items. Each of the four was

assessed individually, but Pope found there was a large overlap in those conditions which were associated with the most disability. In this report, we have grouped the most common medical conditions from Pope's study together into two main classifications: those medical conditions associated with functional limitations and those associated with restricted activity days. The various conditions and the corresponding ICD-9 CM codes are listed in Appendix A, table 1.

Disability Among Youth: The disabled group represent a vulnerable population who may have been disadvantaged since birth but in developed countries, medial advances and careful management have enabled these children to survive beyond adolescence (WHO 1986).

Determination Of Rates: The following rates were determined for each indicator: Crude rate, indirect adjusted rate, standardized mortality or morbidity ratio, and excess hospitalizations, physician visits or deaths.

Crude Mortality Rate (CR): The number of deaths for a specific condition in a given region divided by the population of that region. For example, the crude mortality rate for lung cancer in Winnipeg is the number of deaths from lung cancer among Winnipeg residents divided by the Winnipeg population.

Crude Hospitalization Rate (CR): The number of persons who had at least one hospitalization for a specific condition in a given region, divided by the population of that region.

Crude Physician Visit Rate (CR): The number of persons who had at least two visits to a physician for a particular diagnosis in a given region, divided by the population of that region.

Age-specific Mortality Rate: The number of persons dying in a particular age group in a given region divided by the number of persons in that age group in that region. For example, the age-specific morality rate for 0-14 year olds in Westman is the number of deaths among

children 0-14 who reside in Westman divided by the population of Westman who were 0-14 years of age in that year.

Indirect Adjusted Rate (IAR): We need to adjust rates for differences in age and sex distribution across the regions. This is because a region with a high proportion of seniors, would have more deaths (and thus a higher crude mortality rate). On the other hand, if a region has a high proportion of youth, then it will have fewer deaths, since younger persons do not die as readily as older persons. These age and sex distribution differences make it difficult to do direct comparisons across regions. There are several mathematical methods for adjusting age and sex differences across regions which then allow us to compare regions without worrying about age and sex variations. In this report, we use the indirect adjusted rate.

Standardized Mortality/Morbidity Ratio (SMR-province): Instead of giving an adjusted rate, the SMR gives a ratio, that is a direct comparison with a standard. Here we use the entire province as the standard where the province's rate of a condition is given a value of 1. If a SMR for a particular region for a specific condition is greater than one, then that region's rate for that condition is higher than the provincial average. If the SMR for a particular region is less than one for a given condition, then that region has a lower rate for that condition.

Standardized Mortality/Morbidity Ratio (SMR-low): For this comparison, we use the region with the lowest indirect adjusted rate as the comparison instead of the provincial average. This allows us to see better the differences in rates across regions. It also suggests the potential rate that a region could achieve.

Excess: Mortality (ED) /Persons Hospitalized (EH) /Physician Visits (EV): This item compares each region's performance on the various indicators with that of the province. If the rate for a particular condition in a given region is higher than the provincial average, this implies that if that region's death rate, hospitalization rate or physician visit rate were the same as the provincial rate, then excessive deaths, hospitalizations, or physician visits could theoretically be avoided.

I. Demographic Profile

TABLE I.1

PROPORTION OF POPULATION AGED LESS THAN 25 YEARS AS OF DECEMBER 31, 1991

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AGE 0 - 4										
# persons	7498	6795	4860	2207	3024	5782	8137	45737	38303	84040
% regional population	7.95	8.06	6.76	8.83	6.52	12.95	6.89	7.02	7.90	7.39
ratio: regional/provincial	1.07	1.09	0.91	1.19	0.88	1.75	0.93	0.95	1.07	1.00
AGE 5 - 9										
# persons	8325	7473	5369	2186	3317	5086	8772	43857	40528	84385
% regional population	8.82	8.87	7.47	8.74	7.15	11.39	7.42	6.73	8.36	7.42
ratio: regional/provincial	1.19	1.19	1.01	1.18	0.96	1.53	1.00	0.91	1.13	1.00
AGE 10 - 14										
# persons	7955	7491	5394	2127	3525	4624	8548	41322	39664	80986
% regional population	8.43	8.89	7.50	8.51	7.60	10.36	7.23	6.34	8.18	7.12
ratio: regional/provincial	1.18	1.25	1.05	1.19	1.07	1.45	1.02	0.89	1.15	1.00
AGE 15 - 19										
# persons	7667	7143	5865	2349	3699	4624	8551	42820	39898	82718
% regional population	8.13	8.48	8.16	9.39	7.97	10.36	7.24	6.57	8.23	7.28
ratio: regional/provincial	1.12	1.16	1.12	1.29	1.10	1.42	0.99	0.90	1.13	1.00

Continued.../

TABLE I.1

PROPORTION OF POPULATION AGED LESS THAN 25 YEARS AS OF DECEMBER 31, 1991

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AGE 20 - 24										
# persons	6358	5751	4755	1982	2779	4322	7554	50832	33501	84333
% regional population	6.74	6.82	6.61	7.93	5.99	9.68	6.39	7.80	6.91	7.42
ratio: regional/province	0.91	0.92	0.89	1.07	0.81	1.30	0.86	1.05	0.93	1.00
TOTAL AGE 0 - 24										
# persons	37803	34653	26243	10851	16344	24438	41562	224568	191894	416462
% regional population	40.07	41.12	36.50	43.40	35.23	54.73	35.17	34.44	39.59	36.64
ratio: regional/province	1.09	1.12	1.00	1.18	0.96	1.49	0.96	0.94	1.08	1.00
TOTAL ALL AGES										
# persons	94473	85155	71922	24949	46037	44944	117723	655153	48523	1140406
% provincial population	8.3	7.5	6.3	2.2	4.0	3.9	10.3	57.4	42.6	100

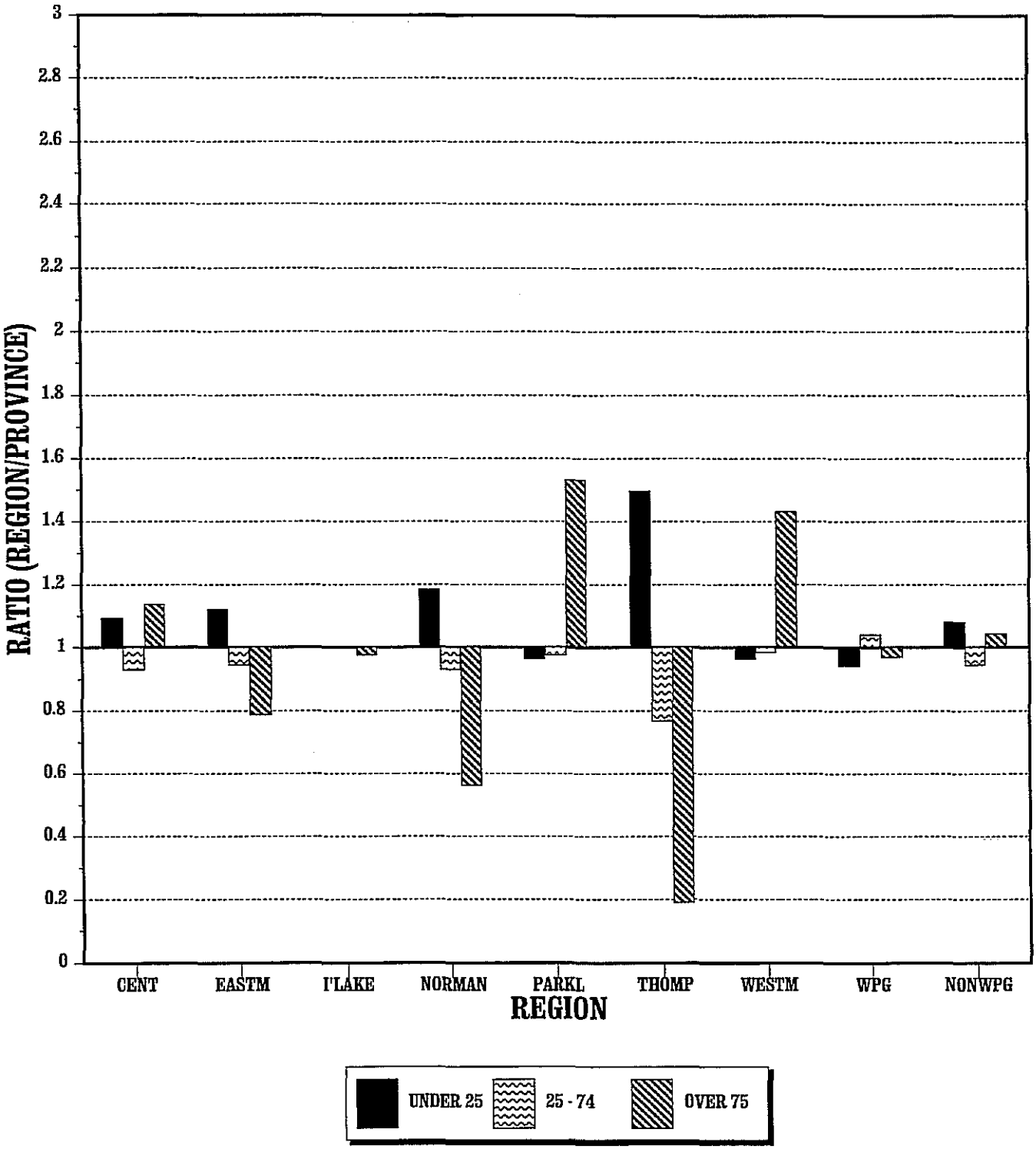
TABLE I.2

PROPORTION OF POPULATION AGED 75 YEARS AND OLDER AS OF DECEMBER 31, 1991

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AGE 75 - 79										
# persons	2809	1843	2035	400	1850	230	4213	17152	13380	30532
% regional population	2.98	2.19	2.83	1.60	3.99	0.52	3.57	2.63	2.76	2.69
ratio: regional/provincial	1.11	0.81	1.05	0.60	1.48	0.19	1.33	0.98	1.03	1.00
AGE 80 - 84										
# persons	1852	1115	1093	242	1230	166	2986	10769	8684	19453
% regional population	1.96	1.32	1.52	0.97	2.65	0.37	2.53	1.65	1.79	1.71
ratio: regional/provincial	1.15	0.77	0.89	0.57	1.55	0.22	1.48	0.97	1.05	1.00
AGE 85+										
# persons	1562	868	911	169	1033	101	2566	8574	7210	15784
% regional population	1.66	1.03	1.27	0.68	2.23	0.23	2.17	1.32	1.49	1.39
ratio: regional/provincial	1.19	0.74	0.91	0.49	1.60	0.16	1.56	0.95	1.07	1.00
TOTAL ELDERLY 75+										
# persons	6223	3826	4039	811	4113	497	9765	36495	29274	65769
% regional population	6.60	4.54	5.62	3.24	8.87	1.11	8.26	5.60	6.04	5.79
ratio: regional/provincial	1.14	0.78	0.97	0.56	1.53	0.19	1.43	0.97	1.04	1.00

Figure 1

PROPORTION OF POPULATION <25, 25-74 AND 75+, MANITOBA 1991



II. Low Birth Weight

TABLE II.1

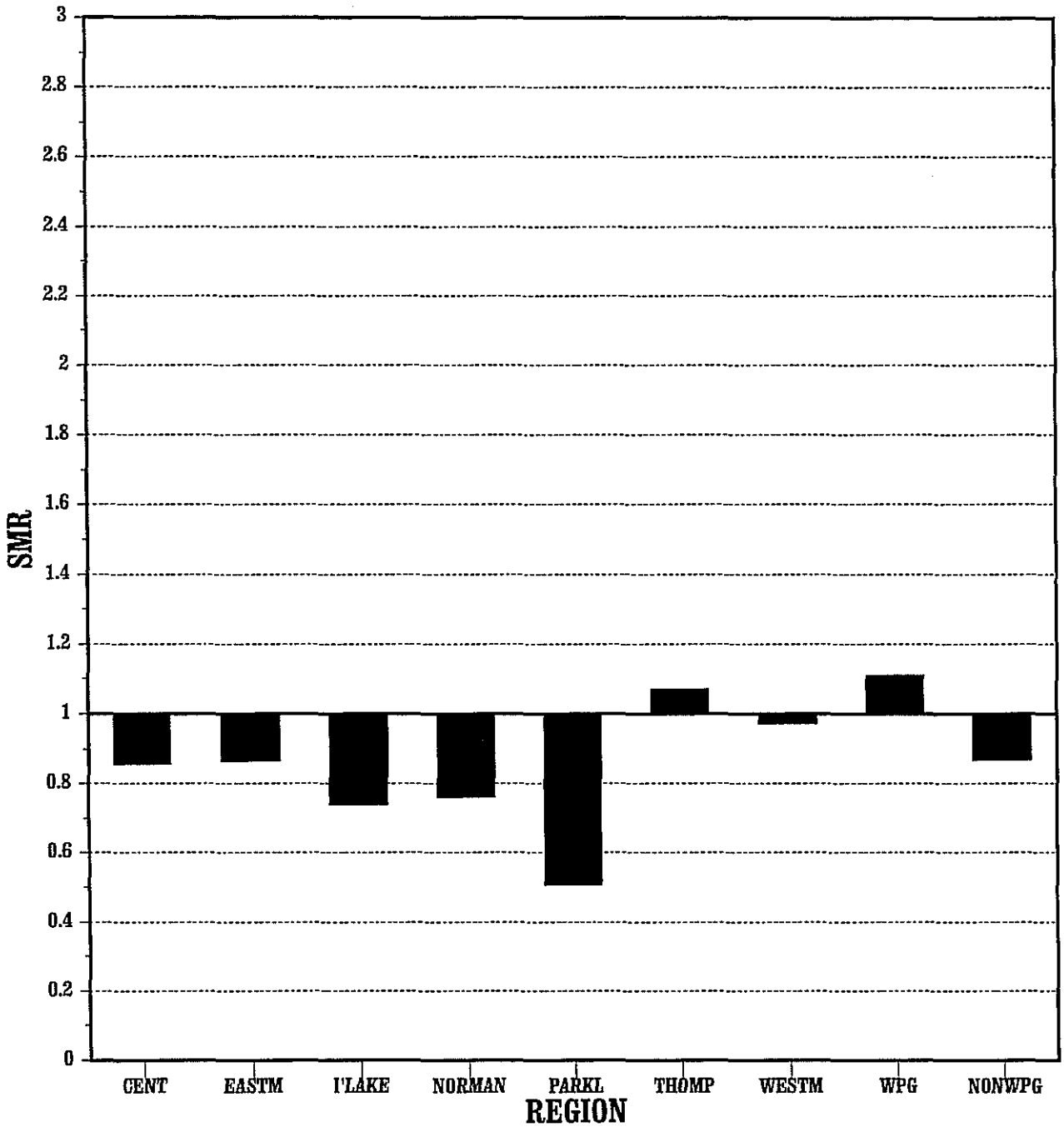
PROPORTION LOW BIRTH WEIGHT* (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
# births	1483	1300	922	432	602	1222	1518	9257	7479	16736
WEIGHT MISSING										
Proportion of Births	6.07	11.54	6.51	6.94	68.11	10.64	17.79	6.05	15.24	10.16
Ratio (region/province)	0.60	1.14	0.64	0.68	6.70	1.05	1.75	0.60	1.50	1.00
< 1500 GRAMS										
Proportion of Births	12.14	6.15	3.25	4.63	0.00	8.18	4.61	9.29	6.42	8.01
Ratio (region/province)	1.52	0.77	0.41	0.58	0.00	1.02	0.58	1.16	0.80	1.00
1500-2500 GRAMS										
Proportion of Births	24.28	30.77	28.20	27.78	21.59	37.64	36.89	38.13	30.62	34.78
Ratio (region/province)	0.70	0.88	0.81	0.80	0.62	1.08	1.06	1.10	0.88	1.00
2500+ GRAMS										
Proportion of Births	957.52	951.54	962.04	960.65	910.30	943.54	940.71	946.53	947.72	947.06
Ratio (region/province)	1.01	1.00	1.02	1.01	0.96	1.00	0.99	1.00	1.00	1.00

* rate per 1,000 live "singleton" births

Figure 2

LOW BIRTH WEIGHT (< 2500 GRAMS)
MANITOBA 1991



III. Health Care System Indicators

TABLE III.1

AMENABLE INDICATOR DEATHS+ (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AMENABLE										
# deaths	59	32	35	14	31	12	81	299	263	562
CR	0.62	0.37	0.49	0.56	0.67	0.27	0.69	0.46	0.54	0.49
IAR	0.55	0.43	0.48	0.82	0.46	0.64	0.51	0.48	0.51	0.49
SMR (province)	1.11	0.86	0.97	1.65	0.93	1.30	1.03	0.97	1.03	1.00
SMR (low)	1.29	1.00	1.13	1.92	1.08	1.51	1.20	1.13	1.20	1.16
ED	6	-	-	6	-	3	2	-	8	-
NON-AMENABLE										
# deaths	741	510	551	149	453	166	1057	4623	3625	8248
CR	7.85	6.05	7.66	5.94	9.75	3.71	8.94	7.09	7.48	7.26
IAR	7.05	7.12	7.57	9.20	6.75	10.93	6.64	7.34	7.15	7.26
SMR (province)	0.97	0.98	1.04	1.27	0.93	1.51	0.91	1.01	0.99	1.00
SMR (low)	1.07	1.08	1.14	1.40	1.02	1.66	1.00	1.11	1.09	1.10
ED	-	-	23	31	-	56	-	54	-	-

+ 3 year average rate per 1,000 population

Figure 3

AMENABLE AND NON-AMENABLE DEATHS MANITOBA 1991

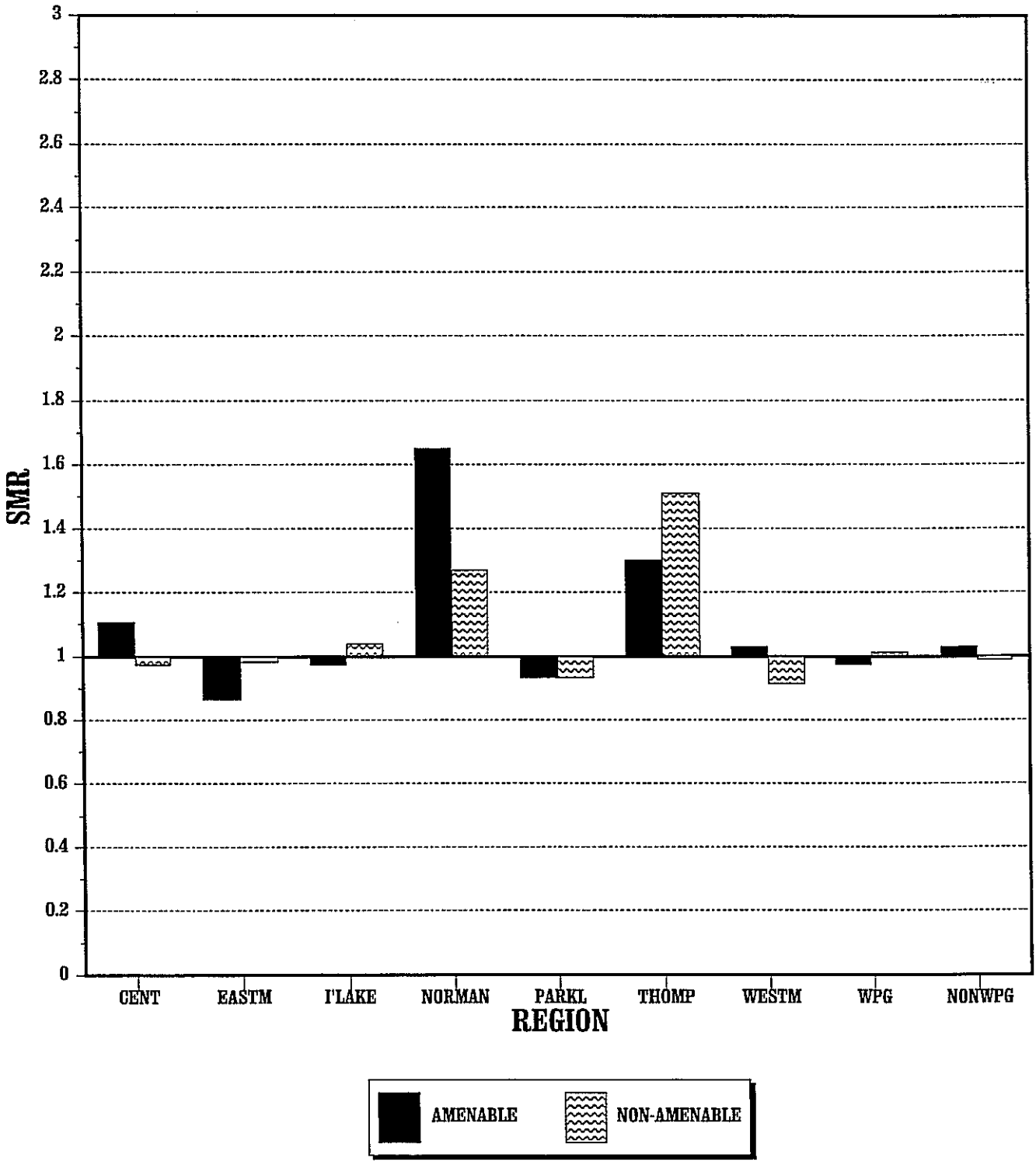


TABLE III.2

'SINGLE EVENT' INDICATOR DEATHS+ (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
SINGLE EVENT										
# deaths	101	66	70	18	56	14	145	631	469	1100
CR	1.07	0.78	0.97	0.72	1.20	0.31	1.23	0.97	0.97	0.97
IAR	0.96	0.90	0.93	1.10	0.82	0.98	0.92	1.01	0.92	0.97
SMR (province)	0.99	0.93	0.96	1.14	0.85	1.01	0.95	1.04	0.95	1.00
SMR (low)	1.16	1.09	1.13	1.34	1.00	1.19	1.12	1.22	1.12	1.18
ED	-	-	-	2	-	1	-	24	-	-
NON-SINGLE EVENT										
# deaths	699	475	516	145	428	164	993	4291	3419	7710
CR	7.41	5.64	7.18	5.78	9.23	3.66	8.40	6.58	7.05	6.78
IAR	6.60	6.67	7.13	9.01	6.41	10.67	6.19	6.83	6.73	6.78
SMR (province)	0.97	0.98	1.05	1.33	0.95	1.57	0.91	1.01	0.99	1.00
SMR (low)	1.07	1.08	1.15	1.46	1.04	1.73	1.00	1.11	1.09	1.10
ED	-	-	25	35	-	58	-	21	-	-

+ 2 year average, rate per 1,000 population

Figure 4

SINGLE AND NON-SINGLE EVENT DEATHS
MANITOBA 1991

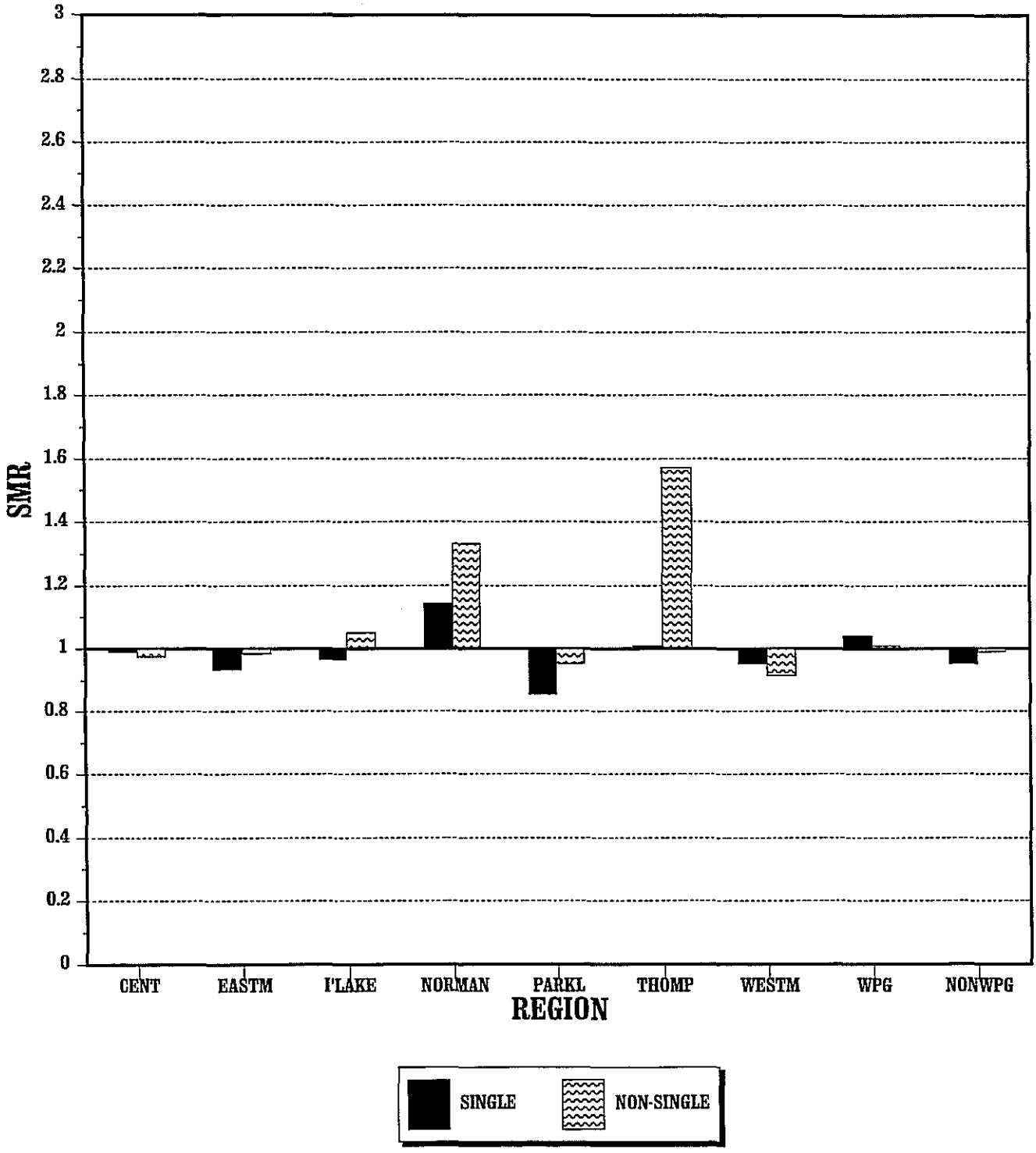


TABLE III.3

'RATE EVENT' INDICATOR DEATHS+ (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
RATE EVENT										
# deaths	100	73	63	21	85	17	152	696	509	1204
CR	1.06	0.86	0.87	0.84	1.82	0.37	1.28	1.07	1.05	1.06
IAR	0.94	1.05	0.87	1.39	1.23	1.29	0.92	1.11	1.00	1.06
SMR (province)	0.88	0.99	0.82	1.31	1.17	1.22	0.87	1.05	0.94	1.00
SMR (low)	1.07	1.21	1.00	1.60	1.43	1.49	1.06	1.28	1.15	1.22
ED	-	-	-	5	12	3	-	30	-	-
NON-RATE EVENT										
# deaths	700	469	524	142	399	161	986	4226	3379	7605
CR	7.41	5.56	7.28	5.66	8.60	3.61	8.34	6.48	6.97	6.69
IAR	6.62	6.52	7.18	8.72	5.99	10.33	6.18	6.72	6.65	6.69
SMR (province)	0.99	0.98	1.07	1.30	0.90	1.54	0.92	1.01	0.99	1.00
SMR (low)	1.10	1.09	1.19	1.44	1.00	1.71	1.02	1.12	1.10	1.11
ED	-	-	35	32	-	56	-	16	-	-

+ 3 year average, rate per 1,000 population

Figure 5

RATE AND NON-RATE EVENT DEATHS

MANITOBA 1991

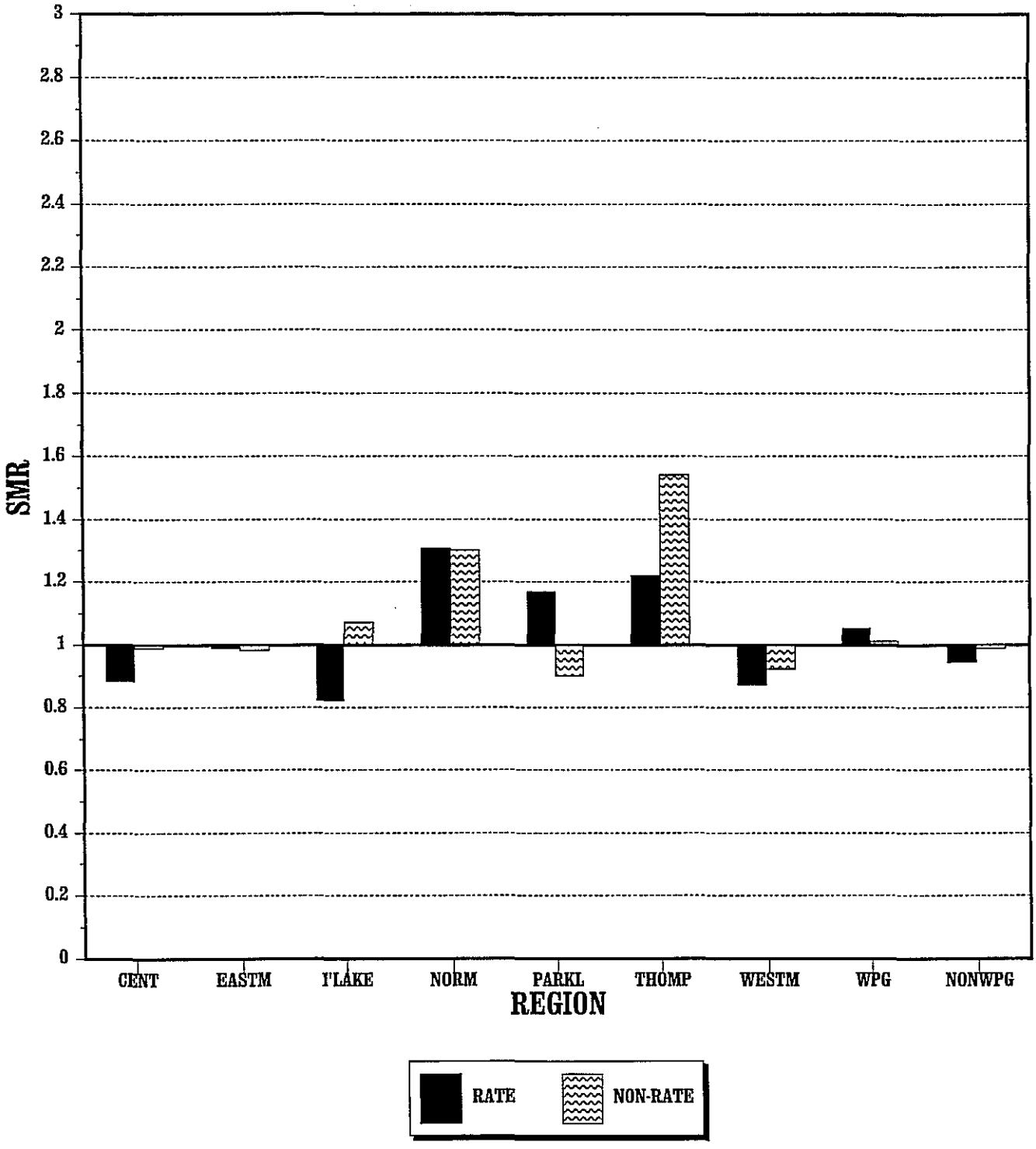


Figure 6

HEALTH CARE SENSITIVE INDICATOR MORTALITY RATES, MANITOBA 1991

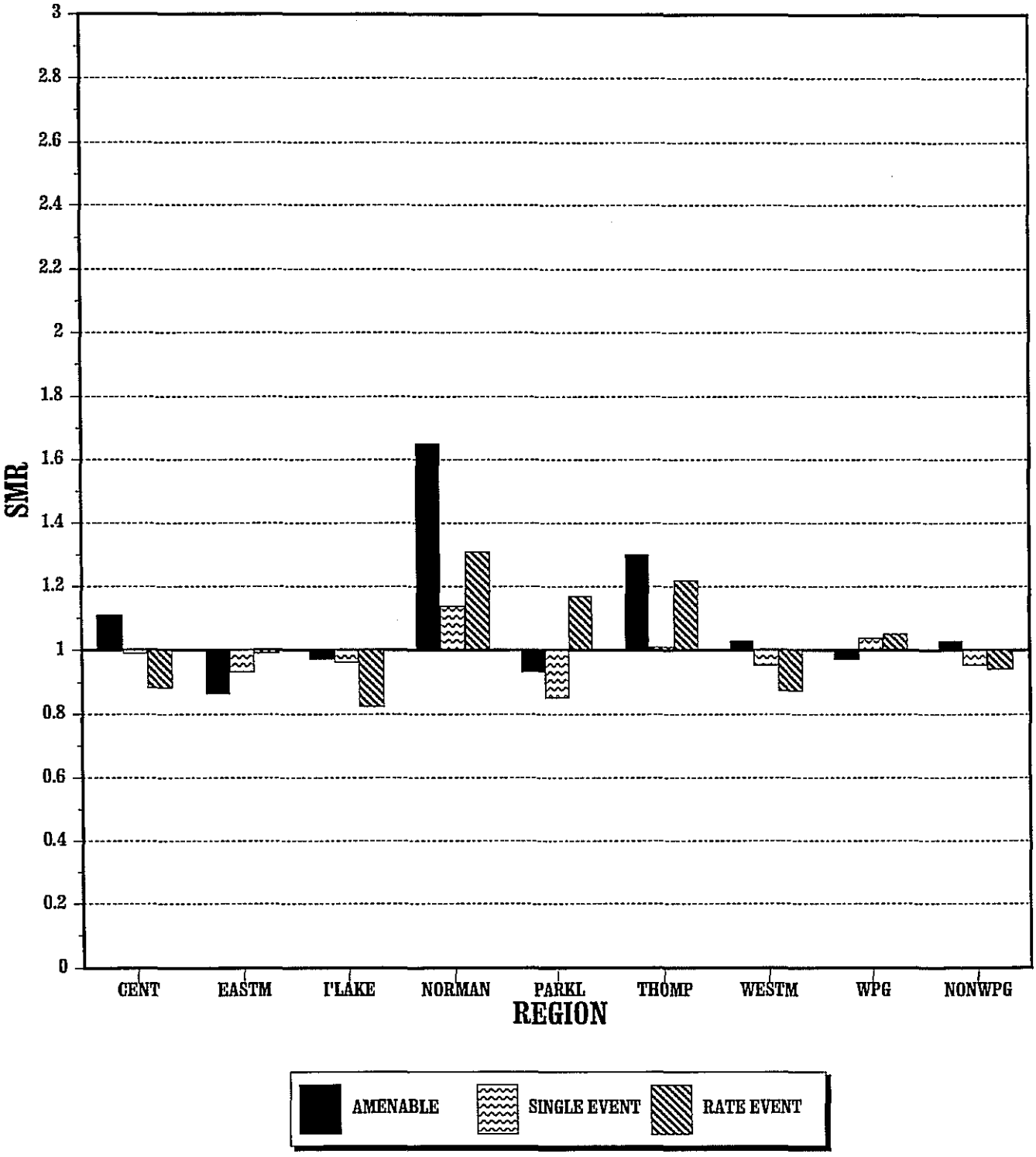


TABLE III.4

AMENABLE INDICATOR HOSPITALIZATIONS+ (MANITOBA 1991/92)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AMENABLE										
# persons	1509	1258	1064	506	1279	1246	2315	6636	9177	15813
CR	15.99	14.93	14.80	20.24	27.57	27.90	19.59	10.18	18.93	13.91
IAR	15.35	14.92	14.55	21.25	25.22	29.90	18.37	10.39	18.43	13.91
SMR (province)	1.10	1.07	1.05	1.53	1.81	2.15	1.32	0.75	1.32	1.00
SMR (low)	1.47	1.43	1.39	2.04	2.42	2.87	1.76	1.00	1.77	1.33
EH	141	85	47	175	574	666	562	-	2250	-
NON-AMENABLE										
# persons	8251	6788	6143	2649	5009	4741	11039	44291	44620	88911
CR	87.45	80.54	85.43	105.95	107.98	106.17	93.42	67.93	92.05	78.22
IAR	86.84	86.07	86.15	119.04	98.6	135.8	86.48	67.53	92.8	78.22
SMR (province)	1.11	1.10	1.10	1.52	1.26	1.74	1.11	0.86	1.19	1.00
SMR (low)	1.29	1.28	1.28	1.77	1.47	2.02	1.29	1.00	1.38	1.16
EH	819	619	566	908	1035	2010	1055	-	7013	-

+ rate per 1,000 population

TABLE III.5

'SINGLE EVENT' INDICATOR HOSPITALIZATIONS+ (MANITOBA 1991/92)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
SINGLE EVENT										
# persons	842	654	730	246	654	498	1448	4294	5072	9367
CR	8.91	7.68	10.15	9.86	14.20	11.06	12.30	6.56	10.45	8.21
IAR	8.32	8.13	9.81	12.09	11.26	16.63	10.41	6.74	10.07	8.21
SMR (province)	1.01	0.99	1.19	1.47	1.37	2.02	1.27	0.82	1.23	1.00
SMR (low)	1.23	1.21	1.45	1.79	1.67	2.46	1.55	1.00	1.50	1.22
EH	11	-	119	79	177	252	305	-	936	-
NON-SINGLE EVENT										
# persons	9122	7541	6703	3073	5794	5601	12508	46359	50342	96701
CR	96.55	88.53	93.18	123.16	125.80	124.41	106.25	70.77	103.72	84.80
IAR	96.00	93.34	93.76	135.17	116.55	151.05	99.69	70.44	104.38	84.80
SMR (province)	1.13	1.10	1.11	1.59	1.37	1.78	1.18	0.83	1.23	1.00
SMR (low)	1.36	1.33	1.34	1.92	1.65	2.14	1.42	1.00	1.48	1.20
EH	1065	690	641	1145	1579	2457	1869	-	9445	-

+ rate per 1,000 population

TABLE III.6

'RATE EVENT' INDICATOR HOSPITALIZATIONS+ (MANITOBA 1991/92)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
RATE EVENT										
# persons	1179	994	946	422	971	638	1871	4853	7021	11874
CR	12.48	11.67	13.15	16.91	21.08	14.17	15.89	7.41	14.47	10.41
IAR	11.98	12.95	12.77	22.30	16.57	27.09	13.33	7.47	14.31	10.41
SMR (province)	1.15	1.24	1.23	2.14	1.59	2.60	1.28	0.72	1.37	1.00
SMR (low)	1.60	1.72	1.71	2.97	2.21	3.61	1.78	1.00	1.90	1.39
EH	155	195	175	225	361	393	409	-	1912	-
NON-RATE EVENT										
# persons	8916	7346	6593	2971	5599	5465	12295	46087	49185	95273
CR	94.37	86.24	91.65	119.07	121.57	121.39	104.44	70.36	101.34	83.54
IAR	93.68	90.59	92.25	129.84	112.97	144.96	98.21	70.11	101.82	83.54
SMR (province)	1.12	1.08	1.10	1.55	1.35	1.74	1.18	0.84	1.22	1.00
SMR (low)	1.33	1.29	1.31	1.85	1.61	2.07	1.40	1.00	1.45	1.19
EH	965	571	622	1059	1458	2315	1836	-	8827	-

+ rate per 1,000 population

TABLE III.7

AMBULATORY CARE SENSITIVE INDICATOR HOSPITALIZATIONS+ (MANITOBA 1991/92)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AMBULATORY										
# persons	2146	1619	1589	706	1938	1529	3449	7185	12976	20161
CR	22.71	19.01	22.09	28.29	42.08	33.96	29.30	10.97	26.74	17.68
IAR	21.22	19.90	21.83	33.02	34.43	44.92	25.30	11.28	25.78	17.68
SMR (province)	1.20	1.13	1.23	1.87	1.95	2.54	1.43	0.64	1.46	1.00
SMR (low)	1.88	1.77	1.92	2.92	3.05	3.97	2.23	1.00	2.28	1.56
EH	358	181	302	328	943	927	1039	-	4078	-
NON-AMBULATORY										
# persons	9648	8224	7029	3196	5558	5998	12667	53568	52320	105888
CR	102.11	96.55	97.71	128.09	120.68	133.23	107.60	81.78	107.80	92.85
IAR	100.01	98.64	98.38	134.42	113.61	143.86	102.50	82.27	106.94	92.85
SMR (province)	1.08	1.06	1.06	1.45	1.22	1.55	1.10	0.89	1.15	1.00
SMR (low)	1.21	1.19	1.19	1.63	1.37	1.74	1.24	1.00	1.29	1.12
EH	690	483	395	988	1016	2127	1192	-	6891	-

+ rate per 1,000 population

TABLE III.8

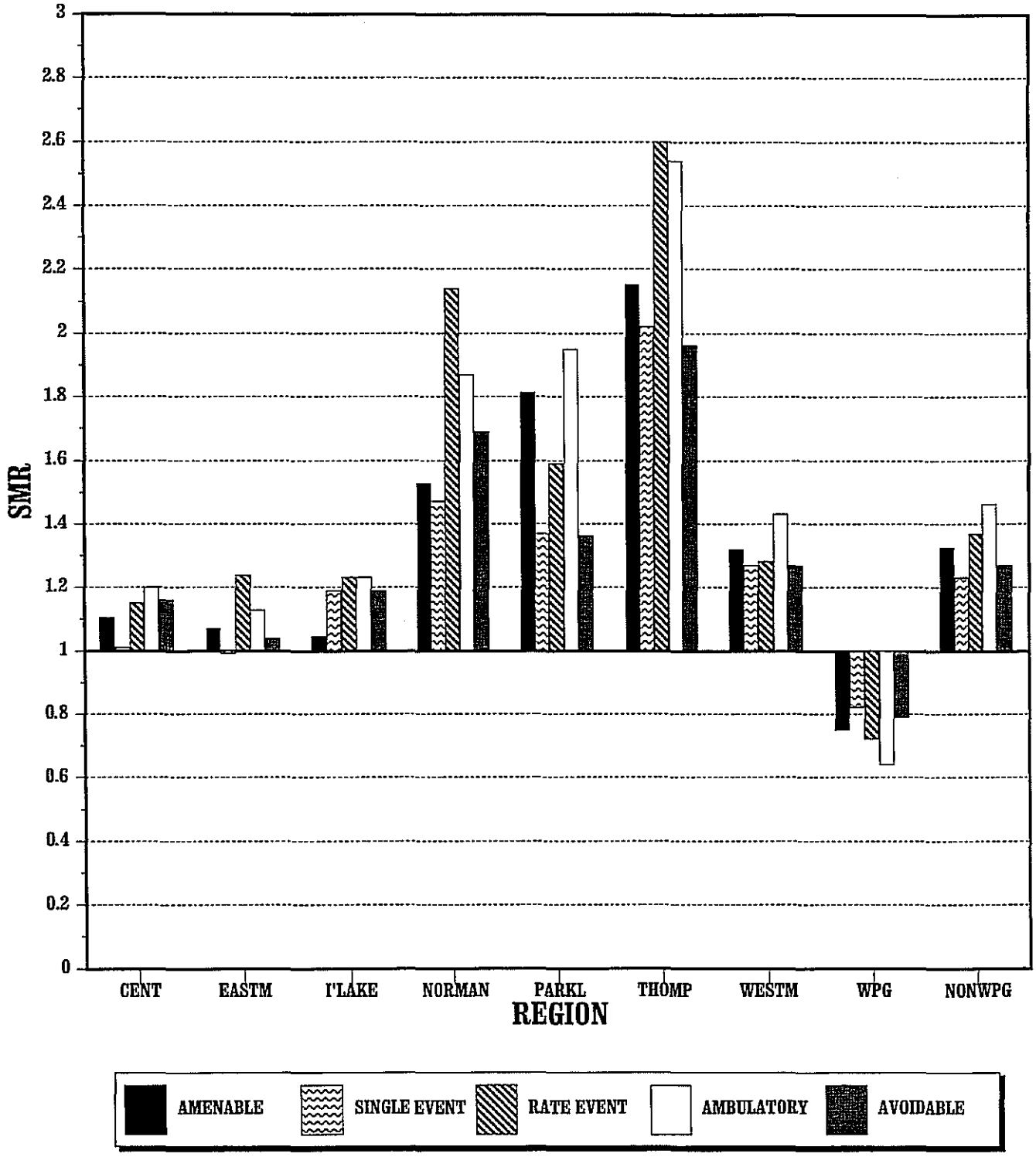
AVOIDABLE INDICATOR HOSPITALIZATIONS+ (MANITOBA 1991/92)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AVOIDABLE										
# persons	727	516	535	216	480	383	1085	3105	3942	7047
CR	7.69	6.06	7.44	8.66	10.42	8.51	9.22	4.74	8.12	6.18
IAR	7.18	6.46	7.35	10.44	8.42	12.08	7.83	4.86	7.85	6.18
SMR (province)	1.16	1.04	1.19	1.69	1.36	1.96	1.27	0.79	1.27	1.00
SMR (low)	1.47	1.32	1.51	2.14	1.72	2.48	1.61	1.00	1.61	1.27
EH	102	22	85	88	128	187	229	-	841	-
NON-AVOIDABLE										
# persons	9236	7634	6823	3087	5934	5645	12771	47341	51130	98472
CR	97.75	89.62	94.85	123.72	128.84	125.39	108.48	72.27	105.35	86.35
IAR	97.10	94.52	95.27	136.27	118.81	153.47	101.52	71.98	105.93	86.35
SMR (province)	1.12	1.09	1.10	1.58	1.38	1.78	1.18	0.83	1.23	1.00
SMR (low)	1.35	1.31	1.33	1.90	1.66	2.14	1.42	1.00	1.48	1.20
EH	1022	660	639	1131	1621	2469	1909	-	9450	-

+ rate per 1,000 population

Figure 7

HEALTH CARE SENSITIVE INDICATOR HOSPITALIZATIONS, MANITOBA 1991



IV. Mortality Rates: Population and Cause Specific

TABLE IV.1

CRUDE AND ADJUSTED MORTALITY RATES+ FOR FEMALES (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
# females	47222	41168	35222	12172	22873	21519	59913	334590	240089	574679
# deaths	367	230	253	65	201	63	541	2447	1718	4164
CR	7.76	5.57	7.17	5.30	8.79	2.93	9.02	7.31	7.15	7.25
IAR	7.15	7.29	7.63	9.13	6.38	10.73	6.77	7.31	7.15	7.25
SMR (province)	0.99	1.01	1.05	1.26	0.88	1.48	0.93	1.01	0.99	1.00
SMR (low)	1.13	1.15	1.19	1.43	1.00	1.68	1.06	1.15	1.13	1.14
ED	-	1	13	13	-	20	-	22	-	-

AGE-SPECIFIC MORTALITY RATES+

0-14	0.65	0.89	0.92	0.76	1.14	1.34	0.56	0.69	0.85	0.76
15-24	0.44	0.41	0.20	0.23	0.33	0.89	0.32	0.27	0.41	0.33
25-34	0.21	0.38	0.47	0.23	0.69	1.31	0.50	0.57	0.50	0.54
35-44	0.42	0.58	0.86	0.30	0.53	1.11	0.70	0.94	0.65	0.83
45-54	2.79	4.06	3.64	4.61	3.18	3.43	2.25	2.66	3.19	2.88
55-64	5.38	7.74	6.93	12.73	7.50	8.76	5.82	6.13	6.80	6.41
65-74	17.09	13.52	18.06	22.61	14.42	26.38	15.37	16.36	16.21	16.30
75-79	29.94	35.02	36.61	40.54	29.23	41.28	26.96	35.26	30.96	33.51
80-84	60.21	56.97	72.03	59.21	45.25	66.27	55.46	61.31	57.63	59.79
85+	145.54	140.24	124.78	178.57	116.94	177.78	139.27	139.74	136.96	138.54

+ 2 year average, rate per 1,000 population

TABLE IV.2

CRUDE AND ADJUSTED MORTALITY RATES+ FOR MALES (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
# males	47126	43109	36686	12831	23514	23135	58251	317372	244652	562024
# deaths	433	312	334	98	283	115	597	2475	2170	4645
CR	9.19	7.23	9.09	7.64	12.01	4.95	10.25	7.80	8.87	8.26
IAR	8.06	7.85	8.50	10.88	8.01	12.36	7.53	8.34	8.18	8.26
SMR (province)	0.98	0.95	1.03	1.32	0.97	1.50	0.91	1.01	0.99	1.00
SMR (low)	1.08	1.04	1.13	1.45	1.07	1.65	1.00	1.11	1.09	1.10
ED	-	-	9	24	-	38	-	23	-	-

AGE-SPECIFIC MORTALITY RATES+

0-14	0.78	1.05	0.73	0.90	1.06	1.72	0.95	0.76	1.01	0.88
15-24	0.96	1.39	1.23	2.48	0.57	2.99	0.66	0.76	1.31	1.01
25-34	0.82	1.14	0.91	1.85	0.98	3.73	0.96	0.97	1.31	1.10
35-44	2.38	1.43	1.46	1.80	2.65	2.94	1.05	1.68	1.78	1.72
45-54	3.18	3.81	3.94	4.80	4.47	3.67	3.30	4.02	3.70	3.88
55-64	10.63	11.24	13.93	17.28	14.16	12.10	9.35	11.13	11.71	11.39
65-74	28.70	26.98	30.81	40.87	26.61	43.94	26.68	30.62	28.64	29.72
75-79	57.20	52.39	57.69	76.27	53.15	79.17	55.44	61.17	56.47	61.17
80-84	89.96	98.34	93.36	96.94	109.16	101.35	97.01	96.58	97.02	96.80
85+	198.29	168.67	196.83	232.39	153.23	170.00	170.79	197.85	178.79	188.02

+ 2 year average, rate per 1,000 population

TABLE IV.3

CRUDE AND ADJUSTED MORTALITY RATES+ FOR MANITOBANS (1991)

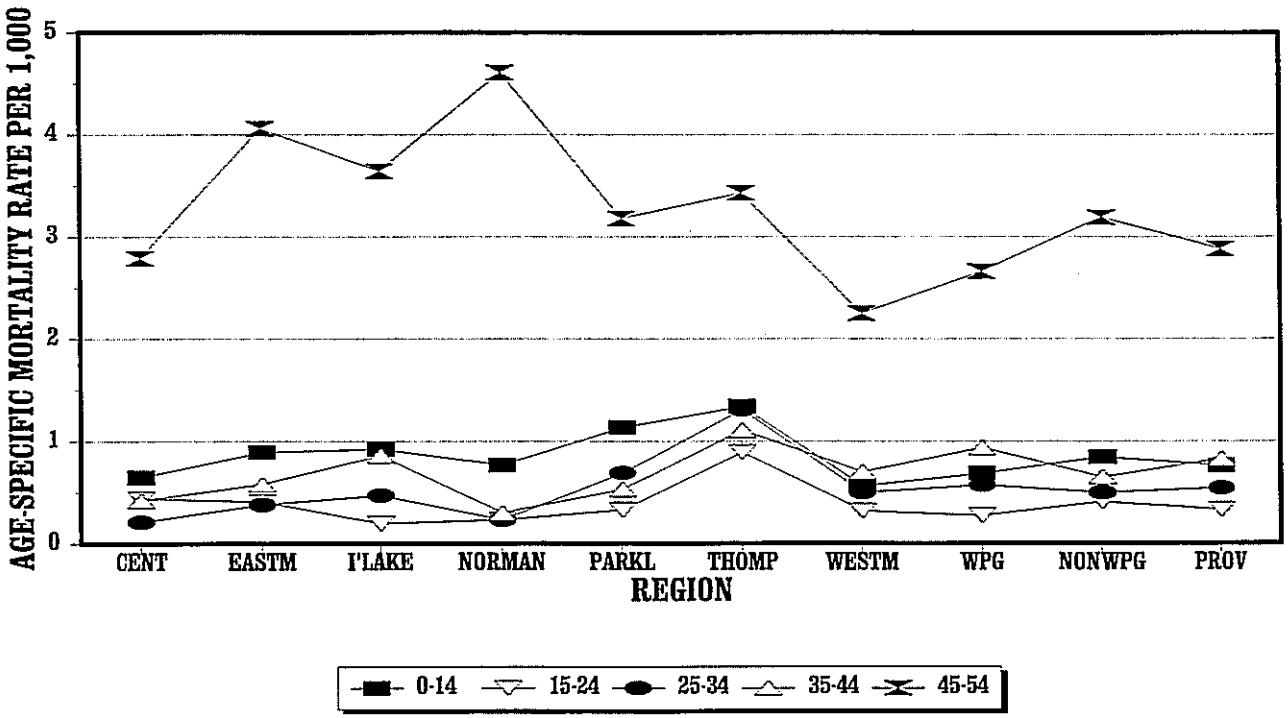
	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
# persons	94348	84277	71908	25003	46387	44654	118164	651962	484741	1136703
# deaths	800	541	586	163	484	178	1138	4922	3888	8809
CR	8.47	6.42	8.15	6.50	10.42	3.98	9.63	7.55	8.02	7.75
IAR	7.60	7.54	8.05	10.02	7.21	11.55	7.15	7.82	7.66	7.75
SMR (province)	0.98	0.97	1.04	1.29	0.93	1.49	0.92	1.01	0.99	1.00
SMR (low)	1.07	1.05	1.13	1.40	1.01	1.62	1.00	1.10	1.08	1.09
ED	-	-	22	37	-	58	-	46	-	-

AGE-SPECIFIC MORTALITY RATES+

0-14	0.71	0.97	0.82	0.83	1.10	1.54	0.76	0.73	0.93	0.82
15-24	0.71	0.93	0.74	1.37	0.46	1.97	0.49	0.51	0.88	0.67
25-34	0.52	0.77	0.69	1.08	0.84	2.55	0.73	0.77	0.91	0.83
35-44	1.43	1.02	1.16	1.10	1.62	2.05	0.88	1.31	1.23	1.28
45-54	2.99	3.93	3.79	4.71	3.84	3.56	2.77	3.33	3.45	3.38
55-64	7.94	9.55	10.52	15.18	10.83	10.61	7.57	8.53	9.28	8.85
65-74	22.48	20.19	24.24	31.34	20.35	35.41	20.58	22.44	22.12	22.31
75-79	42.10	43.37	46.82	56.39	40.42	61.14	39.67	45.27	42.71	44.15
80-84	72.85	75.63	81.56	74.00	73.13	82.80	72.89	73.46	74.60	73.97
85+	163.91	151.70	150.68	203.23	130.54	173.68	149.61	156.23	151.92	154.26

+ 2 year average, rate per 1,000 population

Figure 8 AGE-SPECIFIC MORTALITY RATES FEMALES, MANITOBA 1991



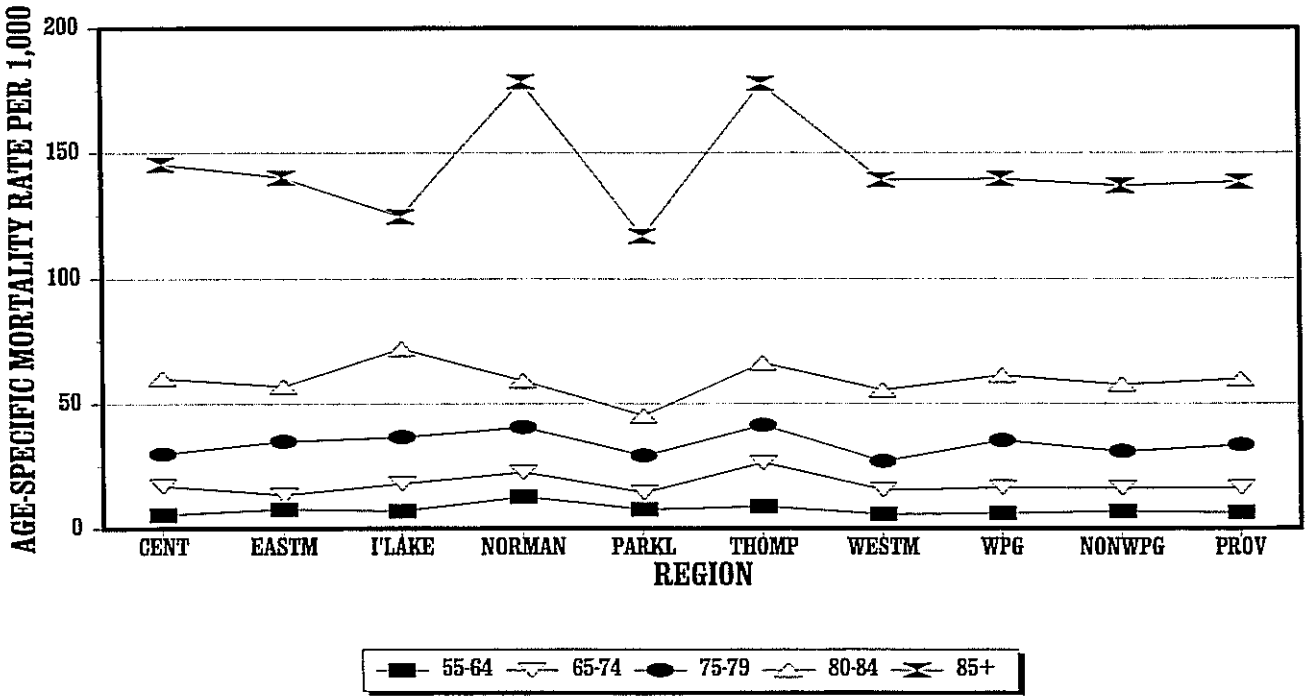
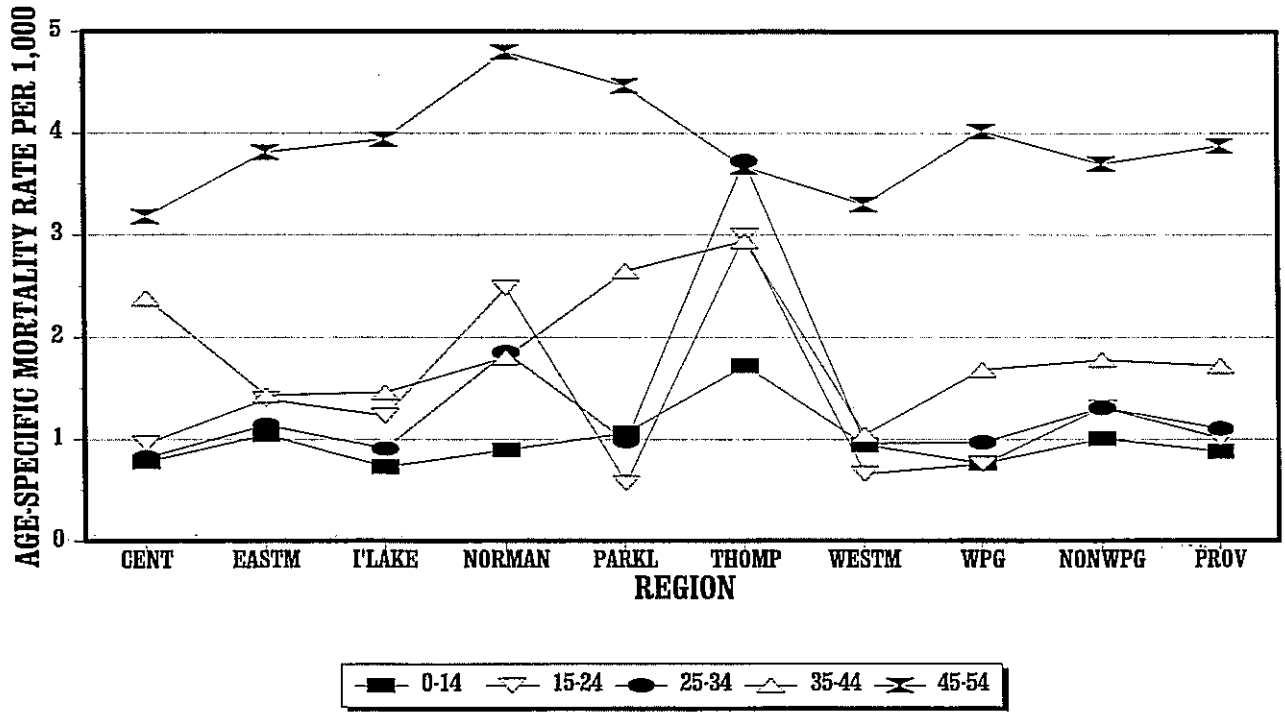


Figure 9 AGE-SPECIFIC MORTALITY RATES MALES, MANITOBA 1991



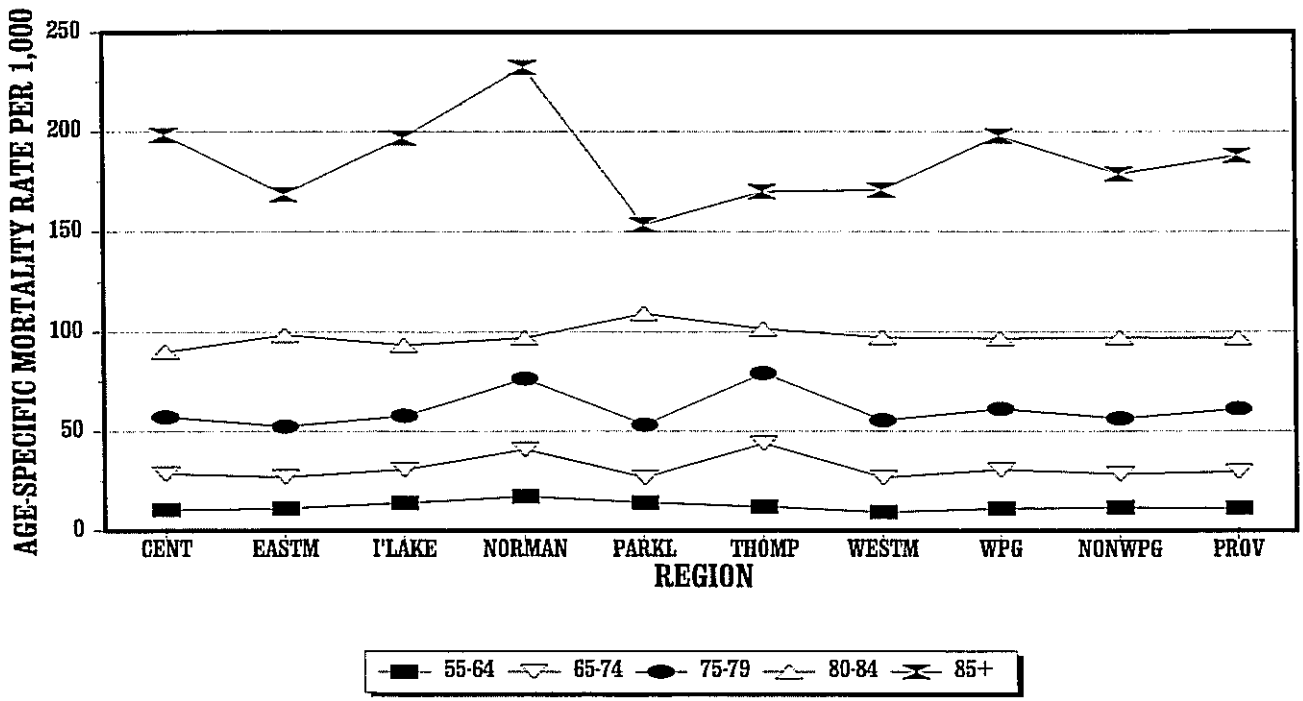


Figure 10

MORTALITY RATES FOR FEMALES AND MALES MANITOBA 1991

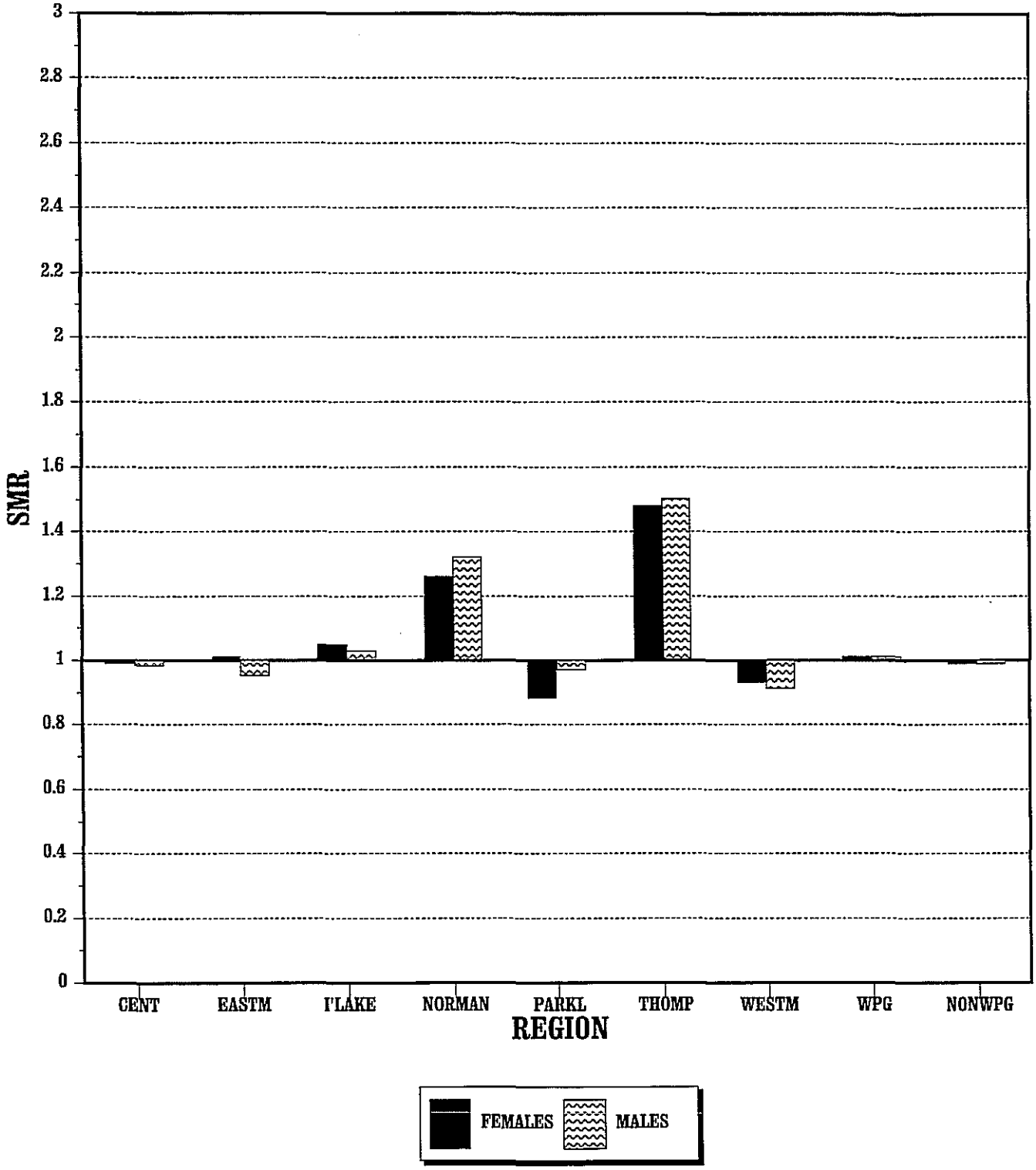


TABLE IV.4

CRUDE AND ADJUSTED MORTALITY RATES+ FOR PERSONS 0-64 YEARS (MANITOBA 1991)

	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
# persons	80954	75320	62430	23098	37595	43353	97742	568998	420492	989490
# deaths	139	151	140	56	97	105	169	1050	855	1905
CR	1.71	2.00	2.24	2.40	2.57	2.42	1.72	1.85	2.03	1.93
IAR	1.74	2.07	2.09	2.72	2.26	3.29	1.60	1.84	2.04	1.93
SMR (province)	0.90	1.07	1.09	1.41	1.17	1.71	0.83	0.96	1.06	1.00
SMR (low)	1.08	1.29	1.31	1.70	1.41	2.06	1.00	1.16	1.28	1.20
ED	-	10	11	16	14	44	-	-	47	-

+ 2 year average, rate per 1,000 population

Figure 11

MORTALITY RATE FOR PERSONS 0-64 YEARS

MANITOBA 1991

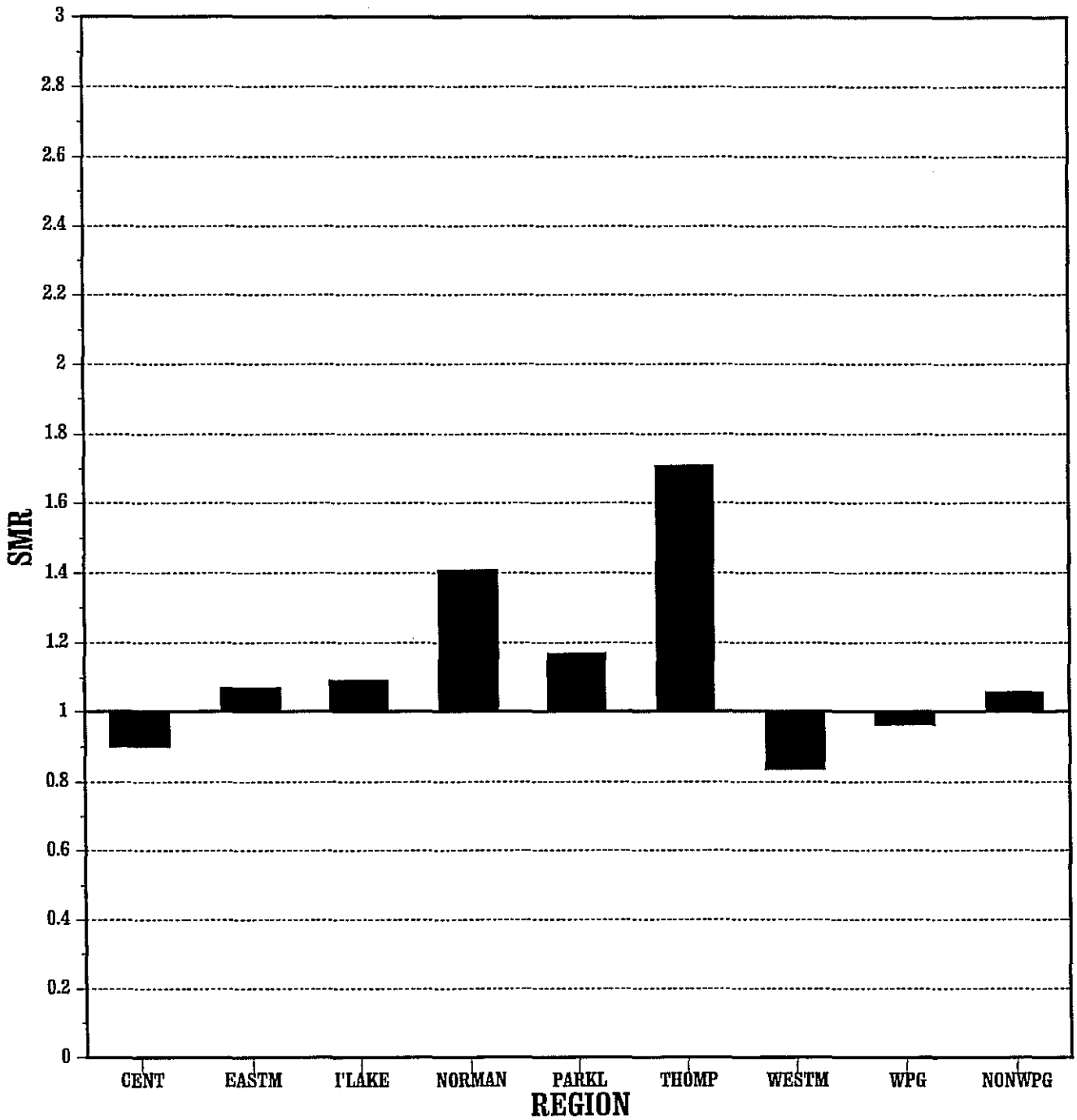


TABLE IV.5

MORTALITY RATES+ FOR SELECTED INFECTIOUS DISEASE AND INJURY INDICATORS (MANITOBA 1991)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
MOTOR VEHICLE										
# deaths	10	14	15	*	8	12	14	41	74	115
CR	10.07	16.61	20.86	12.00	16.17	25.75	11.42	6.21	15.27	10.07
IAR	9.98	16.83	20.69	12.21	15.25	27.22	11.06	6.25	15.13	10.07
SMR (province)	0.99	1.67	2.05	1.21	1.51	2.70	1.10	0.62	1.50	1.00
SMR (low)	1.60	2.69	3.31	1.95	2.44	4.35	1.77	1.00	2.42	1.61
ED	-	6	8	1	3	7	1	-	25	-
FALLS										
# deaths	7	5	*	*	*	*	16	40	36	76
CR	6.89	5.93	3.48	8.00	6.47	1.12	13.54	6.14	7.32	6.64
IAR	6.06	7.32	3.57	13.25	4.48	3.55	9.67	6.35	7.00	6.64
SMR (province)	0.91	1.10	0.54	2.00	0.67	0.53	1.46	0.96	1.05	1.00
SMR (low)	1.72	2.08	1.02	3.77	1.26	1.00	2.75	1.81	1.98	1.89
ED	-	1	-	1	-	-	5	-	2	-
DROWNING AND SUFFOCATION										
# deaths	*	5	*	*	*	8	7	20	27	47
CR	2.12	5.93	2.78	4.00	5.39	17.92	5.50	2.99	5.57	4.09
IAR	2.06	5.92	2.76	4.08	4.99	18.56	5.23	3.05	5.44	4.09
SMR (province)	0.50	1.45	0.67	1.00	1.22	4.54	1.28	0.74	1.33	1.00
SMR (low)	0.75	2.16	1.00	1.49	1.82	6.78	1.91	1.10	1.99	1.49
ED	-	2	-	-	1	6	1	-	7	-

+ 2 year average, rate per 100,000 population

* less than 5 individuals

Continued.../

TABLE IV.5

MORTALITY RATES+ FOR SELECTED INFECTIOUS DISEASE AND INJURY INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
POISONING										
# deaths	*	*	*	*	*	*	*	11	6	17
CR	0.00	1.19	0.00	2.00	3.23	2.24	1.27	1.69	1.13	1.45
IAR	0.00	1.25	0.00	2.28	2.91	3.12	1.18	1.68	1.14	1.45
SMR (province)	0.00	0.86	0.00	1.57	2.00	2.15	0.81	1.16	0.79	1.00
SMR (low)	0.00	1.09	0.00	1.99	2.53	2.72	1.03	1.47	1.00	1.27
ED	-	-	-	1	1	1	-	1	-	-
FIRE AND FLAMES										
# deaths	*	*	*	*	*	*	*	9	13	22
CR	2.12	0.59	2.78	8.00	4.31	5.60	1.69	1.30	2.68	1.89
IAR	2.07	0.61	2.77	8.63	3.93	6.67	1.57	1.31	2.66	1.89
SMR (province)	1.10	0.32	1.47	4.56	2.08	3.53	0.83	0.69	1.40	1.00
SMR (low)	3.44	1.00	4.59	14.25	6.50	11.03	2.59	2.16	4.38	3.13
ED	1	-	1	2	1	2	-	-	4	-
SUICIDE										
# deaths	8	9	10	*	6	*	8	86	48	134
CR	0.08	0.10	0.14	0.16	0.13	0.10	0.06	0.13	0.10	0.12
IAR	0.08	0.10	0.14	0.16	0.13	0.11	0.06	0.13	0.10	0.12
SMR (province)	0.70	0.87	1.16	1.37	1.09	0.94	0.55	1.10	0.86	1.00
SMR (low)	1.27	1.58	2.11	2.49	1.98	1.71	1.00	2.00	1.56	1.82
ED	-	-	1	1	1	-	-	8	-	-

+ 2 year average, rate per 100,000 population
* less than 5 individuals

Continued.../

TABLE IV.5

MORTALITY RATES+ FOR SELECTED INFECTIOUS DISEASE AND INJURY INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
HOMICIDE										
# deaths	*	*	*	*	*	5	*	15	20	35
CR	0.03	0.05	0.01	0.04	0.04	0.11	0.03	0.02	0.04	0.03
IAR	0.03	0.05	0.01	0.04	0.05	0.11	0.03	0.02	0.04	0.03
SMR (province)	1.07	1.76	0.47	1.25	1.52	3.55	1.01	0.73	1.38	1.00
SMR (low)	2.31	3.78	1.00	2.69	3.27	7.64	2.18	1.57	2.97	2.15
ED	1	2	-	1	1	4	1	-	6	-
OTHER INJURIES										
# deaths	6	11	7	*	5	15	9	35	56	91
CR	5.83	13.05	9.73	16.00	10.78	32.47	7.19	5.37	11.45	7.96
IAR	5.81	13.60	9.64	17.24	9.78	40.58	6.71	5.37	11.44	7.96
SMR (province)	0.73	1.71	1.21	2.17	1.23	5.10	0.84	0.67	1.44	1.00
SMR (low)	1.09	2.55	1.81	3.24	1.84	7.61	1.25	1.00	2.15	1.49
ED	-	5	1	2	1	12	-	-	17	-
PNEUMONIA										
# deaths	40	21	22	8	26	*	60	200	179	379
CR	41.87	24.92	29.90	30.00	56.05	8.96	50.35	30.68	36.93	33.34
IAR	35.19	30.97	30.45	53.18	36.58	36.47	33.99	32.53	34.30	33.34
SMR (province)	1.06	0.93	0.91	1.60	1.10	1.09	1.02	0.98	1.03	1.00
SMR (low)	1.16	1.02	1.00	1.76	1.21	1.20	1.12	1.08	1.13	1.10
ED	3	-	-	3	2	1	2	-	6	-

\+ 2 year average, rate per 100,000 population

* less than 5 individuals

Continued.../

TABLE IV.5

MORTALITY RATES+ FOR SELECTED INFECTIOUS DISEASE AND INJURY INDICATORS (MANITOBA 1991)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AIDS										
# deaths	*	*	*	*	*	*	*	9	*	10
CR	0.00	0.00	0.00	0.00	0.00	0.00	0.42	1.38	0.10	0.84
IAR	0.00	0.00	0.00	0.00	0.00	0.00	0.47	1.31	0.11	0.84
SMR (province)	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.57	0.13	1.00
SMR (low)	0.00	0.00	0.00	0.00	0.00	0.00	4.38	12.08	1.00	7.69
ED	.	.	.	.	.	.	.	3	.	.

+ 2 year average, rate per 100,000 population
* less than 5 individuals

Figure 12

MORTALITY RATES FOR INJURY INDICATORS MANITOBA 1991

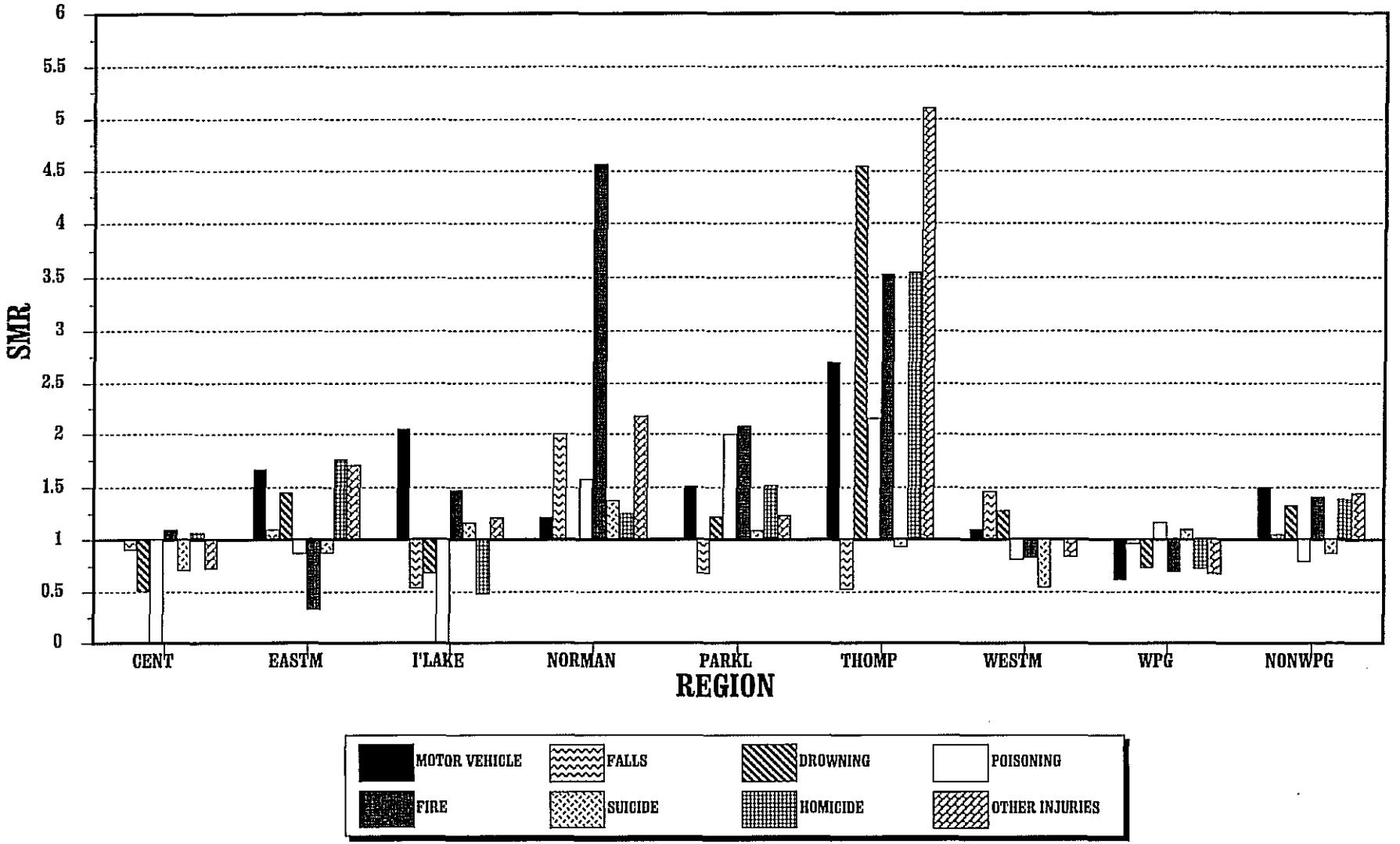


TABLE IV.6

MORTALITY RATES+ FOR CANCER INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CA LUNG										
# deaths	42	33	40	8	26	8	69	326	223	549
CR	43.99	38.56	55.63	30.00	54.97	16.80	57.97	50.00	46.00	48.30
IAR	40.61	43.31	51.95	44.44	38.42	48.92	44.87	51.65	44.12	48.30
SMR (province)	0.84	0.90	1.08	0.92	0.80	1.01	0.93	1.07	0.91	1.00
SMR (low)	1.05	1.13	1.35	1.15	1.00	1.26	1.16	1.34	1.14	1.25
ED	-	-	3	-	-	1	-	21	-	-
CA BLADDER										
# deaths	7	*	*	*	*	*	7	33	24	57
CR	6.89	4.75	1.39	4.00	6.47	2.24	5.92	5.06	4.85	4.97
IAR	5.92	5.41	1.32	6.32	4.09	8.18	4.17	5.43	4.45	4.97
SMR (province)	1.19	1.09	0.26	1.27	0.82	1.65	0.84	1.09	0.89	1.00
SMR (low)	4.58	4.19	1.00	4.88	3.15	6.35	3.23	4.19	3.42	3.85
ED	1	1	-	1	-	1	-	3	-	-
CA KIDNEY										
# deaths	6	5	*	*	*	*	7	29	24	53
CR	5.83	5.93	4.17	0.00	5.39	2.24	5.50	4.45	4.85	4.62
IAR	5.38	6.77	3.96	0.00	3.79	6.57	4.24	4.58	4.67	4.62
SMR (province)	1.16	1.46	0.86	0.00	0.82	1.42	0.92	0.99	1.01	1.00
SMR (low)	1.41	1.78	1.05	0.00	1.00	1.73	1.12	1.21	1.23	1.22
ED	1	2	-	-	-	1	-	-	1	-

\+ 2 year average, rate per 100,000 population

* less than five individuals

Continued.../

TABLE IV.6

MORTALITY RATES+ FOR CANCER INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CA COLON										
# deaths	14	16	14	*	13	*	31	160	91	251
CR	14.31	18.39	18.77	12.00	26.95	4.48	25.81	24.54	18.67	22.04
IAR	12.95	21.37	18.04	18.69	18.55	14.38	19.33	25.40	17.86	22.04
SMR (province)	0.59	0.97	0.82	0.85	0.84	0.65	0.88	1.15	0.81	1.00
SMR (low)	1.00	1.64	1.39	1.44	1.42	1.10	1.49	1.95	1.37	1.69
ED	-	-	-	-	-	-	-	21	-	-
CA BREAST@										
# deaths	16	16	16	*	11	*	23	128	85	212
CR	32.82	38.87	44.01	24.64	45.91	6.98	37.54	38.11	35.20	36.89
IAR	31.61	47.38	44.16	37.84	35.30	20.92	30.65	37.67	35.78	36.89
SMR (province)	0.86	1.28	1.20	1.03	0.96	0.57	0.83	1.02	0.97	1.00
SMR (low)	1.51	2.25	2.11	1.81	1.68	1.00	1.46	1.79	1.70	1.75
ED	-	4	3	-	-	-	-	9	2	11
CA ALL										
# deaths	205	153	154	30	113	24	279	1368	957	2325
CR	216.76	180.98	214.15	119.97	242.56	53.78	236.03	209.83	197.32	204.50
IAR	198.42	208.64	205.69	182.27	170.38	160.75	180.52	215.88	190.16	204.50
SMR (province)	0.97	1.02	1.01	0.89	0.83	0.79	0.88	1.06	0.93	1.00
SMR (low)	1.23	1.29	1.28	1.13	1.05	1.00	1.11	1.34	1.18	1.27
ED	7	10	8	-	-	-	-	139	-	126

\+ 2 year average, rate per 100,000 population
* less than five individuals
@ female population only

Figure 13

MORTALITY RATES FOR CANCER INDICATORS MANITOBA 1991

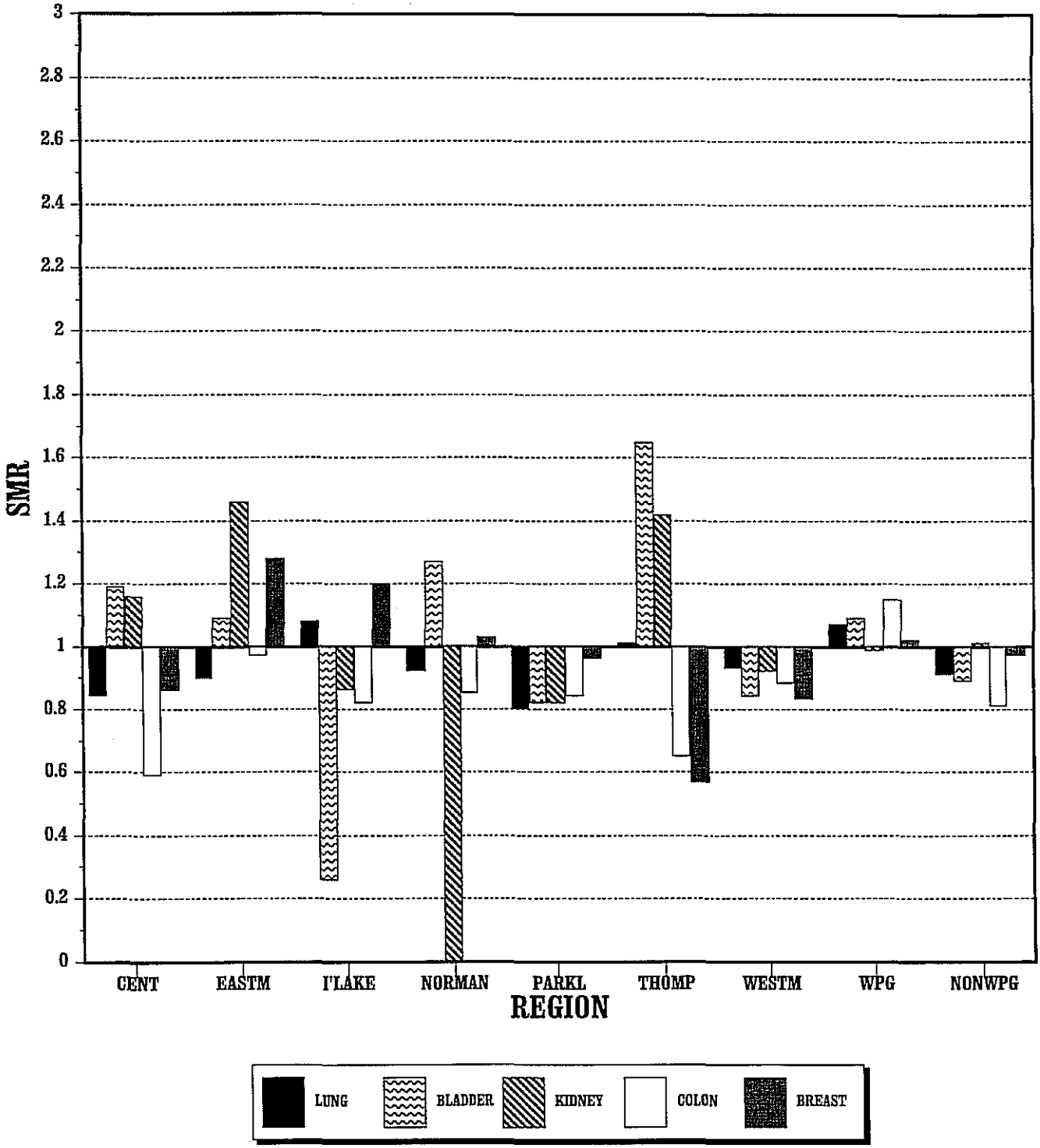


TABLE IV.7

MORTALITY RATES+ FOR CHRONIC DISEASE INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ASTHMA										
# deaths	*	*	*	*	*	*	*	14	11	25
CR	1.59	2.97	1.39	2.00	3.23	0.00	3.39	2.07	2.27	2.16
IAR	1.46	3.51	1.39	3.01	2.34	0.00	2.60	2.11	2.21	2.16
SMR (province)	0.68	1.63	0.65	1.40	1.08	0.00	1.20	0.98	1.03	1.00
SMR (low)	1.05	2.51	1.00	2.15	1.66	0.00	1.85	1.51	1.58	1.54
ED	-	1	-	1	1	-	1	-	1	-
VASCULAR COMPLICATIONS										
# deaths	62	39	28	10	52	11	84	379	284	662
CR	65.18	45.68	38.24	40.00	111.02	23.51	71.09	58.06	58.48	58.24
IAR	56.65	57.16	39.10	69.98	73.65	98.16	49.54	60.47	55.51	58.24
SMR (province)	0.97	0.98	0.67	1.20	1.26	1.69	0.85	1.04	0.95	1.00
SMR (low)	1.45	1.46	1.00	1.79	1.88	2.52	1.27	1.55	1.42	1.49
ED	-	-	-	2	11	4	-	13	-	-
HYPERTENSION										
# deaths	*	*	*	*	6	*	12	34	31	64
CR	4.77	2.97	5.56	6.00	11.86	2.24	9.73	5.14	6.29	5.63
IAR	4.17	3.70	5.60	10.49	7.91	9.58	6.85	5.34	5.99	5.63
SMR (province)	0.74	0.66	0.99	1.86	1.41	1.70	1.22	0.95	1.06	1.00
SMR (low)	1.12	1.00	1.50	2.82	2.14	2.58	1.85	1.44	1.61	1.52
ED	-	-	0	1	2	1	2	-	2	-

\+ 2 year average, rate per 100,000 population

* less than 5 individuals

Continued.../

TABLE IV.7

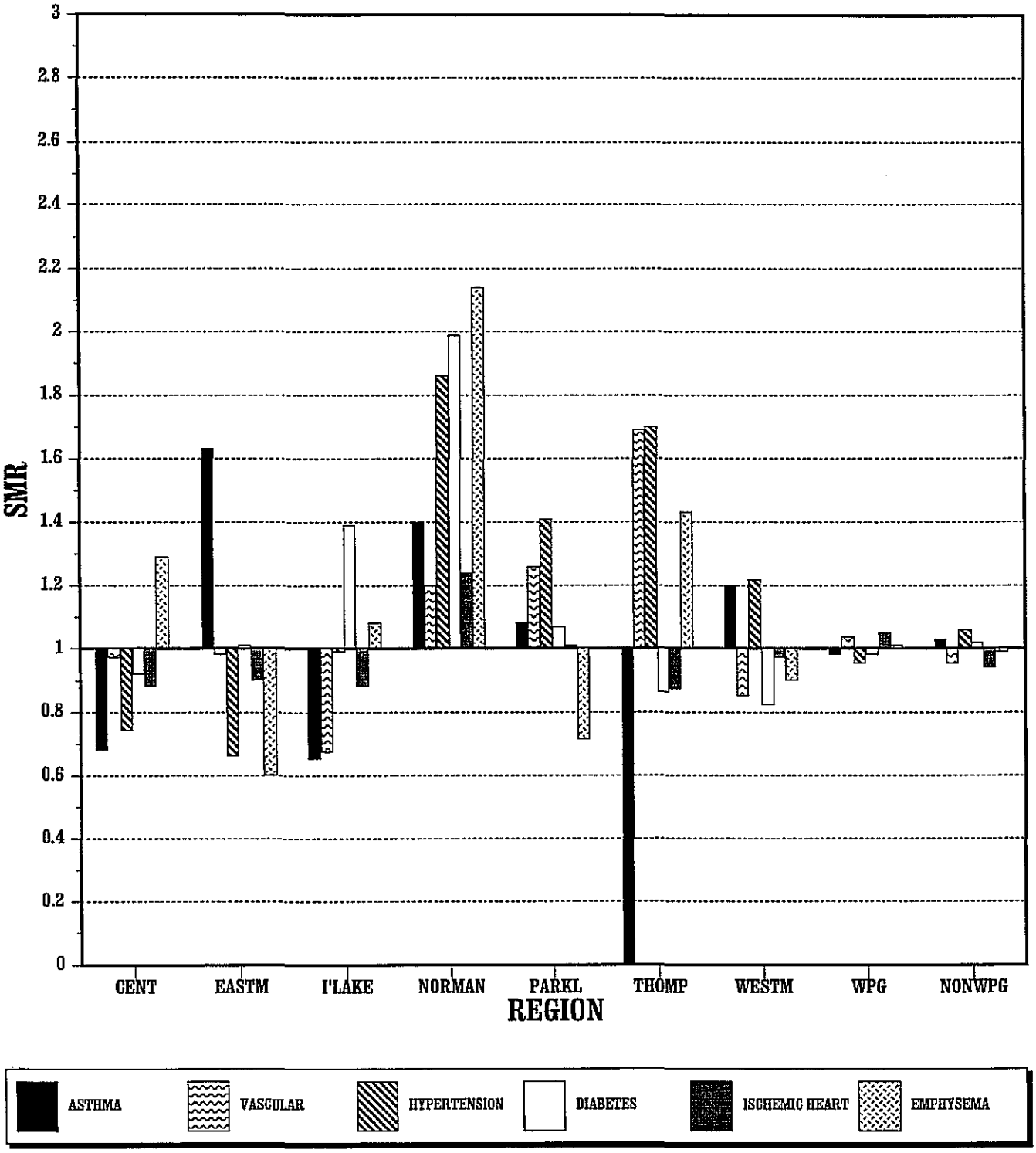
MORTALITY RATES+ FOR CHRONIC DISEASE INDICATORS (MANITOBA 1991)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
DIABETES										
# deaths	15	11	15	*	11	*	20	94	77	171
CR	15.37	12.46	20.86	18.00	23.71	3.36	16.93	14.34	15.88	15.00
IAR	13.76	15.21	20.84	29.90	16.10	12.91	12.32	14.77	15.29	15.00
SMR (province)	0.92	1.01	1.39	1.99	1.07	0.86	0.82	0.98	1.02	1.00
SMR (low)	1.12	1.23	1.70	2.43	1.30	1.05	1.00	1.20	1.24	1.22
ED	-	1	4	2	1	-	-	-	1	-
ISCHEMIC HEART DISEASES										
# deaths	1164	110	111	33	122	18	277	1132	835	1967
CR	173.83	130.56	154.35	129.97	263.04	40.34	234.34	173.63	172.15	173.00
IAR	152.91	156.40	151.91	216.79	175.32	150.41	167.71	181.36	162.83	173.00
SMR (province)	0.88	0.90	0.88	1.24	1.01	0.87	0.97	1.05	0.94	1.00
SMR (low)	1.01	1.03	1.01	1.43	1.16	1.00	1.11	1.21	1.08	1.15
ED	-	-	-	6	2	-	-	52	-	-
EMPHYSEMA										
# deaths	35	11	20	8	13	4	37	150	126	276
CR	36.57	12.46	27.12	32.00	26.95	8.96	31.31	22.93	25.99	24.24
IAR	31.27	14.45	26.11	51.82	17.15	34.57	21.93	24.49	23.94	24.24
SMR (province)	1.29	0.60	1.08	2.14	0.71	1.43	0.90	1.01	0.99	1.00
SMR (low)	2.15	1.00	1.80	3.57	1.18	2.38	1.50	1.68	1.65	1.67
ED	8	-	1	4	-	1	-	2	-	-

\+ 2 year average, rate per 100,000 population

* less than 5 individuals

Figure 14
MORTALITY RATES FOR CHRONIC DISEASE INDICATORS, MANITOBA 1991



V. Hospitalizations

TABLE V.1

HOSPITALIZATION RATES+ FOR INFECTIOUS DISEASE INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
PNEUMONIA										
# persons	364	232	298	131	353	464	553	1204	2395	3599
CR	385.25	272.36	414.26	525.01	766.46	1030.68	469.74	183.80	493.46	315.59
IAR	351.03	280.80	407.76	609.93	617.66	1305.84	397.93	191.76	467.29	315.59
SMR (province)	1.11	0.89	1.29	1.93	1.96	4.14	1.26	0.61	1.48	1.00
SMR (low)	1.82	1.46	2.11	3.16	3.21	6.79	2.07	1.00	2.43	1.64
EPH	37	-	67	63	173	352	114	-	778	-
INFLUENZA										
# persons	40	31	31	*	25	32	90	37	250	287
CR	42.34	36.39	43.09	4.01	54.28	71.08	76.45	5.65	51.51	25.17
IAR	39.52	38.75	43.09	4.75	44.45	96.64	65.33	5.79	49.87	25.17
SMR (province)	1.57	1.54	1.71	0.19	1.77	3.84	2.60	0.23	1.98	1.00
SMR (low)	8.26	8.11	9.00	1.00	9.32	20.21	13.68	1.21	10.42	5.26
EPH	15	11	13	-	11	24	55	-	124	-
HEPATITIS										
# persons	*	*	*	*	*	*	*	18	6	24
CR	0.00	0.00	1.39	8.02	2.17	4.44	0.00	2.75	1.24	2.10
IAR	0.00	0.00	1.47	7.95	2.45	4.56	0.00	2.64	1.31	2.10
SMR (province)	0.00	0.00	0.70	3.78	1.16	2.17	0.00	1.26	0.62	1.00
SMR (low)	0.00	0.00	1.13	6.10	1.87	3.50	0.00	2.03	1.00	1.61
EPH	-	-	-	1	-	1	-	4	-	-

+ rate per 100,000 population

Continued.../

TABLE V.1

HOSPITALIZATION RATES+ FOR INFECTIOUS DISEASE INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
TUBERCULOSIS										
# persons	*	*	*	*	*	19	*	46	28	74
CR	1.06	3.52	1.39	4.01	0.00	42.20	2.55	7.02	5.77	6.49
IAR	1.08	3.63	1.37	4.23	0.00	49.18	2.50	6.94	5.86	6.49
SMR (province)	0.17	0.56	0.21	0.65	0.00	7.58	0.39	1.07	0.90	1.00
SMR (low)	1.00	3.29	1.24	3.82	0.00	44.59	2.29	6.29	5.29	5.88
EPH	-	-	-	-	-	16	-	3	-	-
STD										
# persons	*	*	*	*	*	*	*	18	14	32
CR	1.06	1.17	4.17	8.02	0.00	6.66	3.40	2.75	2.88	2.81
IAR	1.08	1.18	4.34	7.13	0.00	5.49	3.64	2.73	2.91	2.81
SMR (province)	0.38	0.42	1.55	2.54	0.00	1.96	1.30	0.97	1.04	1.00
SMR (low)	1.00	1.11	4.08	6.68	0.00	5.16	3.42	2.55	2.74	2.63
EPH	-	-	1	1	-	1	1	-	-	-
PELVIC INFLAMMATORY DISEASE										
# persons	39	23	33	19	27	44	57	245	242	487
CR	41.28	27.00	45.87	76.15	58.62	97.74	48.42	37.40	49.86	42.70
IAR	44.63	28.32	48.66	73.29	69.40	93.79	52.77	35.81	53.05	42.70
SMR (province)	1.05	0.66	1.14	1.72	1.63	2.20	1.24	0.84	1.24	1.00
SMR (low)	1.59	1.00	1.73	2.61	2.47	3.33	1.88	1.27	1.88	1.52
EPH	2	-	4	8	10	24	11	-	47	-

\+ rate per 100,000 individuals

* less than 5 individuals

Continued.../

TABLE V.1

HOSPITALIZATION RATES+ FOR INFECTIOUS DISEASE INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
AIDS										
# persons	*	*	*	*	*	*	*	24	*	26
CR	0.00	0.00	0.00	0.00	0.00	0.00	1.70	3.66	0.41	2.28
IAR	0.00	0.00	0.00	0.00	0.00	0.00	1.90	3.49	0.44	2.28
SMR (province)	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.53	0.19	1.00
SMR (low)	0.00	0.00	0.00	0.00	0.00	0.00	4.37	8.05	1.00	5.26
EPH	-	-	-	-	-	-	-	8	-	-

\+ rate per 100,000 individuals

* less than 5 individuals

Figure 15

HOSPITALIZATION RATES FOR INFECTIOUS DISEASE INDICATORS, MANITOBA 1991

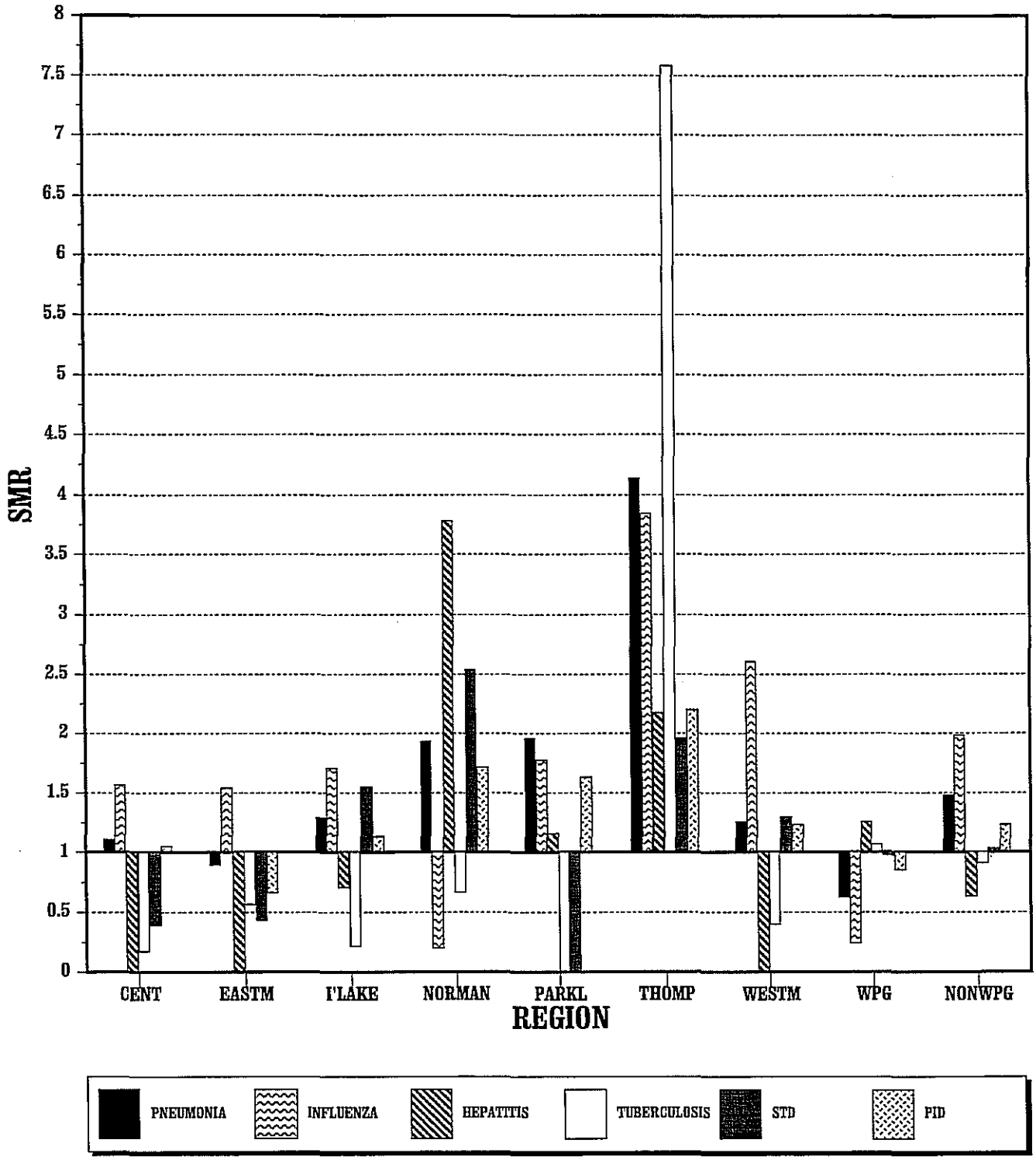


TABLE V.2

HOSPITALIZATION RATES+ FOR INJURY INDICATORS (MANITOBA 1991/92)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
MOTOR VEHICLE										
# persons	103	98	77	41	70	73	115	371	577	948
CR	109.02	115.08	107.06	164.33	152.24	162.42	97.72	56.63	118.91	83.16
IAR	109.77	115.59	107.28	158.84	153.78	154.68	99.60	56.55	118.92	83.16
SMR (province)	1.32	1.39	1.29	1.91	1.85	1.86	1.20	0.68	1.43	1.00
SMR (low)	1.94	2.04	1.90	2.81	2.72	2.74	1.76	1.00	2.10	1.47
EPH	25	27	17	20	32	34	19	-	174	-
FALLS										
# persons	422	325	284	134	268	217	685	1846	2335	4181
CR	446.77	381.66	394.87	533.09	582.14	482.82	581.87	281.77	481.19	366.62
IAR	417.22	421.62	399.62	678.25	469.28	740.58	483.94	285.97	469.28	366.62
SMR (province)	1.14	1.15	1.09	1.85	1.28	2.02	1.32	0.78	1.28	1.00
SMR (low)	1.46	1.47	1.40	2.37	1.64	2.59	1.69	1.00	1.64	1.28
EPH	51	43	24	62	58	110	167	-	515	-
VEHICULAR NON-TRAFFIC										
# persons	56	40	46	32	37	67	63	139	341	480
CR	59.29	46.98	63.96	128.29	80.47	149.03	53.53	21.23	70.30	42.11
IAR	58.14	45.16	64.25	117.96	83.10	125.20	55.30	21.57	68.81	42.11
SMR (province)	1.38	1.07	1.53	2.80	1.97	2.95	1.31	0.51	1.63	1.00
SMR (low)	2.71	2.10	3.00	5.49	3.86	5.78	2.57	1.00	3.20	1.96
EPH	15	3	16	21	18	44	15	-	132	-

+ rate per 100,000 population

Continued.../

TABLE V.2

HOSPITALIZATION RATES+ FOR INJURY INDICATORS (MANITOBA 1991/92)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
DROWNING										
# persons	17	15	11	13	8	24	24	82	112	194
CR	18.00	17.62	15.29	52.12	17.40	53.38	20.39	12.52	23.09	17.02
IAR	16.54	17.01	15.15	52.15	15.79	49.44	18.89	13.12	21.76	17.02
SMR (province)	0.97	1.00	0.89	3.06	0.93	2.90	1.11	0.77	1.28	1.00
SMR (low)	1.26	1.30	1.16	3.97	1.21	3.77	1.44	1.00	1.66	1.30
EPH	-	-	-	9	-	16	2	-	24	-
POISONING										
# persons	30	22	25	17	27	33	46	111	200	311
CR	31.76	25.83	34.76	68.14	58.72	73.40	39.09	16.94	41.22	27.28
IAR	30.67	25.10	35.08	66.02	58.22	66.37	38.66	17.19	40.10	27.28
SMR (province)	1.12	0.92	1.29	2.42	2.13	2.42	1.42	0.63	1.47	1.00
SMR (low)	1.78	1.46	2.05	3.84	3.38	3.84	2.25	1.00	2.33	1.59
EPH	3	-	6	10	14	19	14	-	64	-
FIRE & FLAMES										
# persons	9	7	8	6	7	13	12	19	62	81
CR	9.53	8.22	11.12	24.05	15.22	28.92	10.20	2.90	12.78	7.11
IAR	9.23	7.93	11.04	23.11	15.00	25.97	10.18	2.96	12.43	7.11
SMR (province)	1.30	1.11	1.55	3.25	2.10	3.65	1.43	0.42	1.75	1.00
SMR (low)	3.10	2.64	3.69	7.74	5.00	8.69	3.40	1.00	4.17	2.38
EPH	2	1	3	4	4	9	4	-	27	-

+ rate per 100,000 population

Continued.../

TABLE V.2

HOSPITALIZATION RATES+ FOR INJURY INDICATORS (MANITOBA 1991/92)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ATTEMPTED SUICIDE										
# persons	53	56	31	46	30	121	90	325	427	752
CR	56.10	65.76	43.10	184.41	65.25	269.22	76.45	49.61	87.99	65.97
IAR	58.05	66.63	44.23	173.44	71.64	246.07	81.14	48.82	90.38	65.97
SMR (province)	0.88	1.01	0.67	2.62	1.08	3.73	1.23	0.74	1.37	1.00
SMR (low)	1.31	1.51	1.00	3.91	1.61	5.57	1.84	1.10	2.04	1.49
EPH	-	-	-	28	2	89	17	-	115	-
ATTEMPTED HOMICIDE										
# persons	45	56	40	56	30	180	49	397	456	853
CR	47.64	65.76	55.62	224.53	65.25	400.50	41.62	60.60	93.97	74.83
IAR	50.06	65.85	56.87	208.03	72.57	363.67	44.90	59.12	96.53	74.83
SMR (province)	0.67	0.88	0.76	2.78	0.97	4.86	0.60	0.79	1.29	1.00
SMR (low)	1.12	1.47	1.27	4.63	1.62	8.10	1.00	1.32	2.15	1.67
EPH	-	-	-	36	-	143	-	-	103	-
ALL INJURIES										
# persons	1114	1044	814	520	798	1171	1701	5275	7162	12437
CR	1179.17	1225.99	1131.78	2084.25	1733.38	2605.46	1444.91	805.15	1475.93	1090.58
IAR	1156.01	1275.97	1134.20	2235.68	1592.24	2955.46	1352.31	807.03	1461.37	1090.58
SMR (province)	1.06	1.17	1.04	2.05	1.46	2.71	1.24	0.74	1.34	1.00
SMR (low)	1.43	1.58	1.41	2.77	1.97	3.66	1.68	1.00	1.81	1.35
EPH	60	150	33	266	251	739	328	-	1828	-

+ rate per 100,000 population

Figure 16

HOSPITALIZATION RATES FOR INJURY INDICATORS, MANITOBA 1991

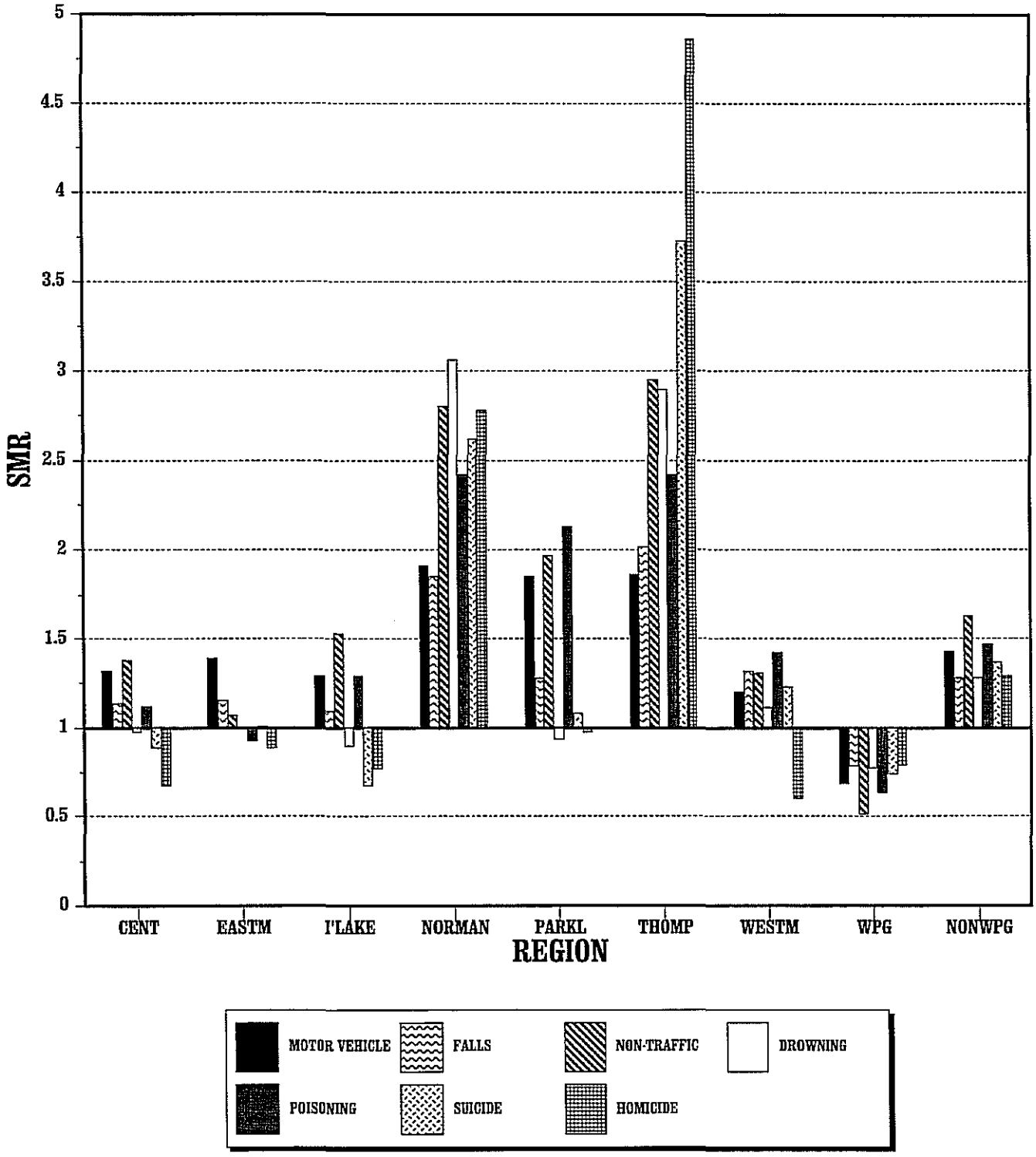


TABLE V.3

HOSPITALIZATION RATES+ FOR CANCER INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
LUNG										
# persons	64	49	63	12	45	13	101	499	347	846
CR	67.74	57.53	87.58	48.09	97.71	28.88	85.79	76.18	71.49	74.18
IAR	63.81	63.53	80.36	69.63	69.90	78.89	68.40	78.11	69.18	74.18
SMR (province)	0.86	0.86	1.08	0.94	0.94	1.06	0.92	1.05	0.93	1.00
SMR (low)	1.00	1.00	1.26	1.09	1.09	1.23	1.07	1.22	1.08	1.16
EPH	-	-	5	-	-	1	-	25	-	-
NON-MELANOMA SKIN										
# persons	9	*	7	*	6	*	5	45	30	75
CR	9.53	2.35	9.73	0.00	13.03	2.22	4.25	6.87	6.18	6.58
IAR	8.86	2.69	9.30	0.00	9.46	5.64	3.32	7.03	6.00	6.58
SMR (province)	1.35	0.41	1.41	0.00	1.44	0.86	0.50	1.07	0.91	1.00
SMR (low)	3.29	1.00	3.44	0.00	3.51	2.10	1.22	2.61	2.22	2.44
EPH	2	-	2	-	2	-	-	3	-	-
BLADDER										
# persons	29	20	22	*	22	*	46	152	145	297
CR	30.69	23.48	30.58	16.03	47.77	4.44	39.07	23.20	29.88	26.04
IAR	27.49	26.09	28.10	24.17	31.53	14.14	29.06	24.47	27.93	26.04
SMR (province)	1.06	1.00	1.08	0.93	1.21	0.54	1.12	0.94	1.07	1.00
SMR (low)	1.96	1.85	2.00	1.72	2.24	1.00	2.07	1.74	1.98	1.85
EPH	2	-	2	-	4	-	5	-	10	-

\+ rate per 100,000 population

* less than 5 individuals

Continued.../

TABLE V.3

HOSPITALIZATION RATES+ FOR CANCER INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
COLON										
# persons	57	58	49	11	47	7	112	433	341	774
CR	60.33	68.09	68.12	44.08	102.05	15.55	95.14	66.10	70.26	67.87
IAR	56.19	77.62	64.49	65.62	72.37	44.95	74.10	67.67	68.12	67.87
SMR (province)	0.83	1.14	0.95	0.97	1.07	0.66	1.09	1.00	1.00	1.00
SMR (low)	1.26	1.73	1.44	1.47	1.62	1.00	1.65	1.52	1.52	1.52
EPH	-	7	-	-	3	-	9	-	1	-
BREAST@										
# persons	53	55	65	7	22	6	96	436	304	740
CR	112.10	132.02	184.07	57.41	96.68	27.62	160.48	129.61	126.27	128.22
IAR	111.55	152.79	179.45	81.22	78.42	66.13	139.32	127.21	129.70	128.22
SMR (province)	0.87	1.19	1.40	0.63	0.61	0.52	1.09	0.99	1.01	1.00
SMR (low)	1.67	2.29	2.69	1.21	1.17	1.00	2.10	1.90	1.94	1.92
EPH	-	9	19	-	-	-	8	-	3	-
KIDNEY										
# persons	14	8	14	*	12	*	17	61	73	134
CR	14.82	9.39	19.46	16.03	26.06	8.89	14.44	9.31	15.04	11.75
IAR	14.16	10.33	18.23	22.03	19.59	20.32	11.82	9.47	14.72	11.75
SMR (province)	1.21	0.88	1.55	1.88	1.67	1.73	1.01	0.81	1.25	1.00
SMR (low)	1.49	1.09	1.91	2.32	2.06	2.14	1.25	1.00	1.54	1.23
EPH	2	-	5	2	5	2	-	-	15	-

+ rate per 100,000 population
* less than 5 individuals
@ female population only

Continued.../

TABLE V.3

HOSPITALIZATION RATES+ FOR CANCER INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
OTHER CANCER										
# persons	504	415	441	110	284	124	727	3336	2605	5941
CR	533.42	487.20	613.04	440.85	616.64	275.44	617.55	509.27	536.72	520.95
IAR	520.31	532.34	586.82	573.18	494.07	524.25	528.34	511.26	533.92	520.95
SMR (province)	1.00	1.02	1.13	1.10	0.95	1.01	1.01	0.98	1.02	1.00
SMR (low)	1.05	1.07	1.19	1.16	1.00	1.06	1.06	1.03	1.07	1.05
EPH	-	9	49	10	-	1	10	-	63	-
ALL CANCERS										
# persons	732	607	661	149	438	157	1105	4963	3849	8812
CR	774.73	712.61	918.87	597.15	951.02	348.74	938.64	757.65	793.03	772.71
IAR	749.18	788.91	877.01	805.95	740.48	735.60	786.28	762.52	786.26	772.71
SMR (province)	0.97	1.02	1.13	1.04	0.96	0.95	1.02	0.99	1.02	1.00
SMR (low)	1.02	1.07	1.19	1.09	1.01	1.00	1.07	1.04	1.07	1.05
EPH	-	12	79	6	-	-	19	-	66	-

\+ rate per 100,000 population

* less than 5 individuals

Figure 17

HOSPITALIZATION RATES FOR CANCER INDICATORS, MANITOBA 1991

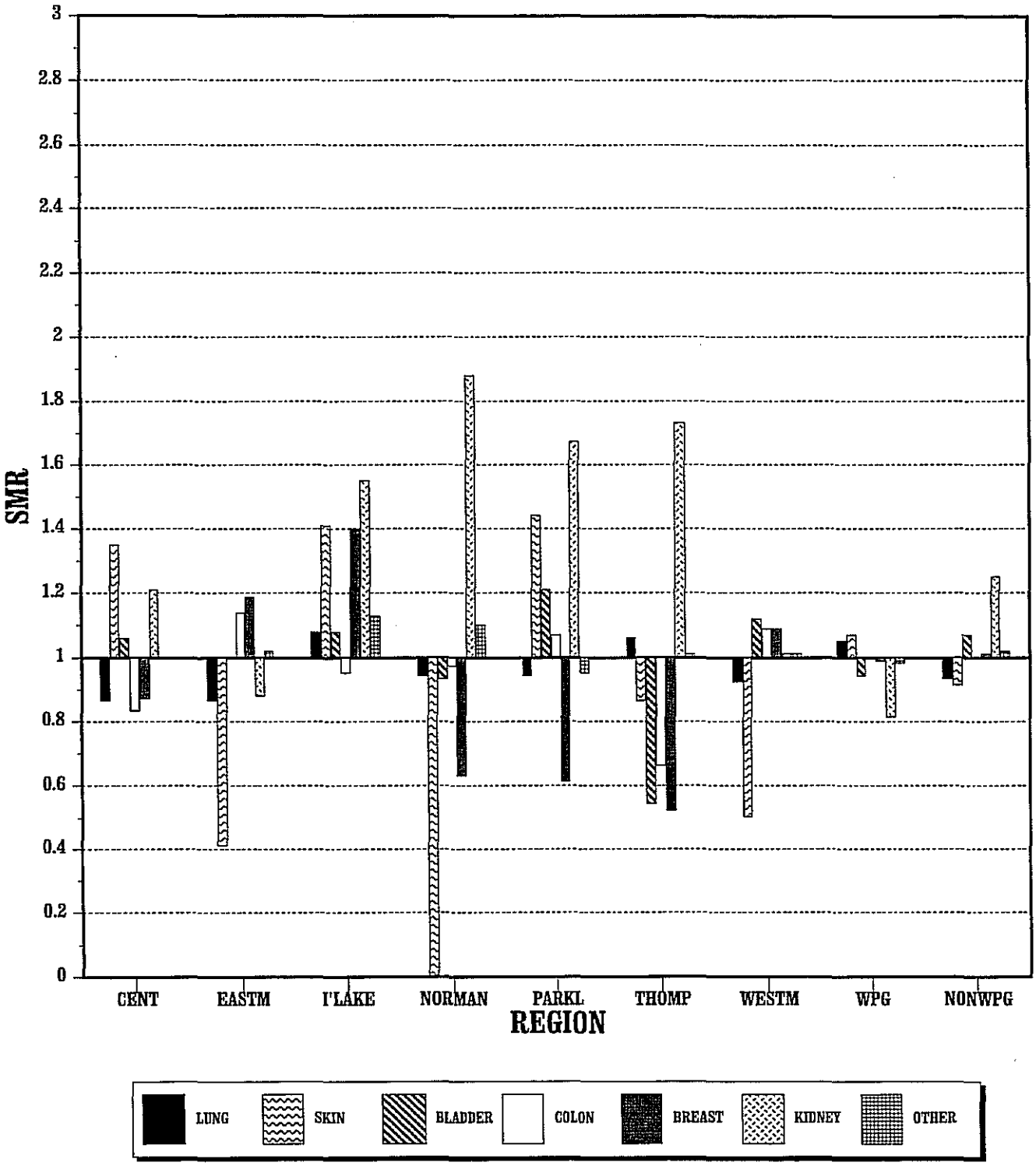


TABLE V.4

HOSPITALIZATION RATES+ FOR CHRONIC DISEASE INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ISCHEMIC HEART										
# persons	474	414	438	121	399	99	870	3091	2815	5906
CR	501.67	486.03	608.87	484.93	866.34	219.91	739.02	471.87	579.99	517.89
IAR	471.35	550.70	575.80	710.08	622.93	599.39	582.82	481.68	564.48	517.89
SMR (province)	0.91	1.06	1.11	1.37	1.20	1.16	1.13	0.93	1.09	1.00
SMR (low)	1.00	1.16	1.22	1.51	1.32	1.27	1.24	1.02	1.20	1.10
EPH	-	25	44	33	67	13	97	-	232	-
DIABETES										
# persons	341	264	241	142	286	173	431	1054	1878	2932
CR	360.91	309.93	335.02	569.09	620.98	384.28	366.11	160.90	386.94	257.10
IAR	352.35	343.63	322.68	752.22	495.37	759.89	312.01	161.02	386.57	257.10
SMR (province)	1.37	1.34	1.26	2.93	1.93	2.96	1.21	0.63	1.50	1.00
SMR (low)	2.17	2.13	2.00	4.65	3.06	4.70	1.92	1.00	2.38	1.59
EPH	92	66	49	93	138	114	76	-	629	-
ASTHMA										
# persons	257	183	170	69	154	100	378	1106	1311	2417
CR	272.00	214.84	236.32	276.53	334.38	222.13	321.09	168.84	270.11	211.94
IAR	253.16	207.41	235.18	275.15	312.81	201.98	306.37	175.23	257.45	211.94
SMR (province)	1.19	0.98	1.11	1.30	1.48	0.95	1.45	0.83	1.21	1.00
SMR (low)	1.43	1.18	1.34	1.57	1.78	1.14	1.75	1.00	1.46	1.20
EPH	42	-	17	16	50	-	117	-	232	-

\+ rate per 100,000 population

* less than 5 individuals

Continued.../

TABLE V.4

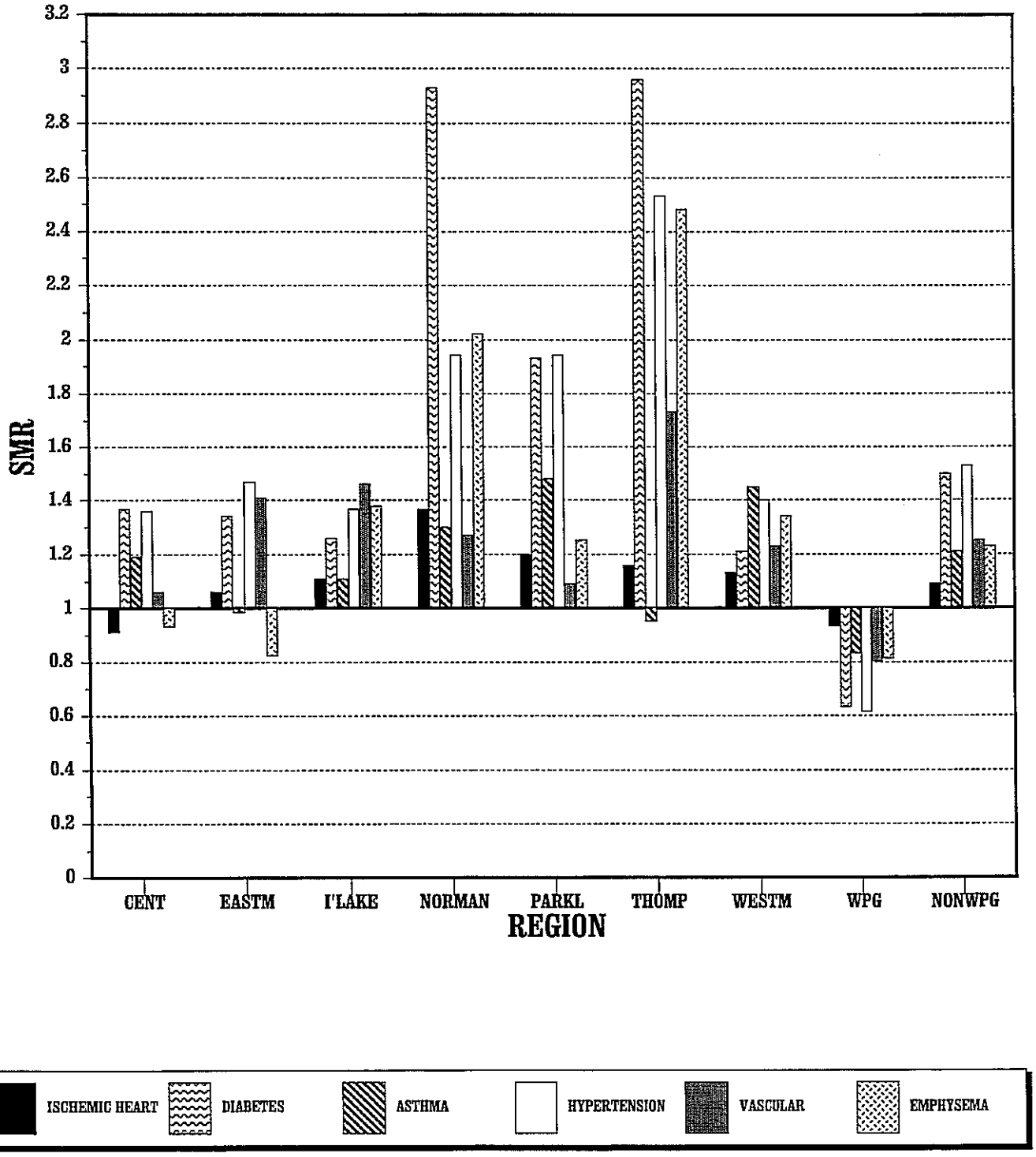
HOSPITALIZATION RATES+ FOR CHRONIC DISEASE INDICATORS (MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
HYPERTENSION										
# persons	243	198	184	61	214	82	367	725	1349	2074
CR	257.19	232.45	255.78	244.47	464.65	182.15	311.75	110.68	277.94	181.87
IAR	247.74	268.07	248.33	352.85	352.82	459.47	254.70	110.77	277.62	181.87
SMR (province)	1.36	1.47	1.37	1.94	1.94	2.53	1.40	0.61	1.53	1.00
SMR (low)	2.23	2.41	2.25	3.18	3.18	4.15	2.30	1.00	2.51	1.64
EPH	65	64	49	30	104	50	105	-	465	-
VASCULAR COMPLICATIONS										
# persons	220	206	218	41	145	50	384	1027	1264	2291
CR	232.84	241.84	303.05	164.32	314.83	111.06	326.19	156.78	260.43	200.89
IAR	213.45	283.25	294.10	254.43	218.93	347.89	246.53	160.97	251.59	200.89
SMR (province)	1.06	1.41	1.46	1.27	1.09	1.73	1.23	0.80	1.25	1.00
SMR (low)	1.33	1.76	1.83	1.59	1.36	2.16	1.54	1.00	1.56	1.25
EPH	13	60	69	9	12	21	71	-	255	-
EMPHYSEMA										
# persons	185	118	202	63	161	67	399	981	1195	2176
CR	195.80	138.53	280.81	252.48	349.57	148.83	338.93	149.76	246.21	190.81
IAR	178.17	157.20	263.22	384.94	237.63	473.51	256.41	155.49	234.54	190.81
SMR (province)	0.93	0.82	1.38	2.02	1.25	2.48	1.34	0.81	1.23	1.00
SMR (low)	1.15	1.01	1.70	2.49	1.54	3.06	1.65	1.00	1.52	1.23
EPH	-	-	56	32	32	40	102	-	223	-

\+ rate per 100,000 population
* less than 5 individuals

Figure 18

HOSPITALIZATION RATES FOR CHRONIC DISEASE INDICATORS, MANITOBA 1991



VI. Visits to Physicians

TABLE VI.1

VISITS TO PHYSICIANS BY PERSONS < 25 YEARS OF AGE+ FOR DISABILITY-RELATED REASONS
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CEREBRAL PALSY										
# persons	12	17	12	6	10	16	17	107	90	197
CR	0.32	0.49	0.46	0.55	0.61	0.65	0.41	0.48	0.47	0.47
IAR	0.31	0.47	0.46	0.55	0.61	0.62	0.40	0.49	0.46	0.47
SMR (province)	0.65	1.00	0.97	1.16	1.29	1.32	0.85	1.03	0.97	1.00
SMR (low)	1.00	1.54	1.49	1.78	1.98	2.03	1.31	1.58	1.49	1.54
EV (province)	-	-	-	1	2	4	-	3	-	-
SPINA BIFIDA										
# persons	*	5	*	*	*	*	9	47	29	76
CR	0.08	0.14	0.15	0.18	0.18	0.12	0.22	0.21	0.15	0.18
IAR	0.08	0.14	0.15	0.18	0.18	0.12	0.21	0.21	0.15	0.18
SMR (province)	0.42	0.76	0.83	1.01	0.98	0.66	1.17	1.17	0.81	1.00
SMR (low)	1.00	1.81	1.98	2.40	2.33	1.57	2.79	2.79	1.93	2.38
EV (province)	-	-	-	-	-	-	1	7	-	-
HYDROCEPHALUS										
# persons	*	*	*	*	*	*	*	12	14	26
CR	0.08	0.06	0.04	0.18	0.06	0.16	0.02	0.05	0.07	0.06
IAR	0.08	0.06	0.04	0.18	0.06	0.14	0.02	0.05	0.07	0.06
SMR (province)	1.27	0.94	0.65	2.94	1.04	2.30	0.39	0.86	1.17	1.00
SMR (low)	3.26	2.41	1.67	7.54	2.67	5.90	1.00	2.21	3.00	2.56
EV (province)	1	-	-	1	-	2	-	-	2	-

\+ rate per 1,000 persons < 25 years of age
* less than 5 individuals

Continued.../

TABLE VI.1

VISITS TO PHYSICIANS BY PERSONS <25 YEARS OF AGE+ FOR DISABILITY-RELATED REASONS
(MANITOBA 1991/92)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CYSTIC FIBROSIS										
# persons	7	9	6	*	5	*	7	36	34	70
CR	0.19	0.26	0.23	0	0.31	0	0.17	0.16	0.18	0.17
IAR	0.19	0.26	0.23	0	0.31	0	0.17	0.16	0.18	0.17
SMR (province)	1.12	1.57	1.39	0	1.86	0	1.02	0.95	1.06	1
SMR (low)	1.18	1.65	1.46	0.00	1.96	0.00	1.07	1.00	1.12	1.05
EV (province)	1	3	2	-	2	-	-	-	2	-
DEVELOPMENTAL DELAY										
# persons	*	*	6	*	*	*	*	72	19	91
CR	0.11	0.12	0.23	0.09	0	0.12	0.02	0.32	0.1	0.22
IAR	0.1	0.12	0.23	0.09	0	0.11	0.02	0.32	0.1	0.22
SMR (province)	0.48	0.53	1.07	0.42	0	0.52	0.11	1.48	0.45	1
SMR (low)	4.36	4.82	9.73	3.82	0.00	4.73	1.00	13.45	4.09	9.09
EV (province)	-	-	-	-	-	-	-	23	-	-
HEARING LOSS										
# persons	16	26	57	*	8	16	17	163	143	306
CR	0.42	0.75	2.17	0.28	0.49	0.65	0.41	0.73	0.75	0.73
IAR	0.41	0.73	2.15	0.28	0.48	0.65	0.4	0.74	0.73	0.73
SMR (province)	0.56	0.99	2.92	0.38	0.65	0.89	0.55	1.01	0.99	1
SMR (low)	1.47	2.61	7.68	1.00	1.71	2.34	1.45	2.66	2.61	2.63
EV (province)	-	-	37	-	-	-	-	1	-	-

\+ rate per 1,000 persons < 25 years of age
* less than 5 individuals

Continued.../

TABLE VI.1

VISITS TO PHYSICIANS BY PERSONS <25 YEARS OF AGE+ FOR DISABILITY-RELATED REASONS
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
EMOTIONAL DISTURBANCE										
# persons	55	81	56	13	31	19	116	900	371	1271
CR	1.45	2.34	2.13	1.2	1.9	0.78	2.79	4.01	1.93	3.05
IAR	1.41	2.27	2.08	1.19	1.84	0.79	2.73	4.08	1.9	3.05
SMR (province)	0.46	0.74	0.68	0.39	0.6	0.26	0.9	1.34	0.62	1
SMR (low)	1.77	2.85	2.62	1.50	2.31	1.00	3.46	5.15	2.38	3.85
EV (province)	-	-	-	-	-	-	-	226	-	-

\+ rate per 1,000 persons <25 years of age
* less than 5 individuals

Figure 19

PHYSICIAN VISITS FOR DISABILITY AMONG YOUTH, MANITOBA 1991

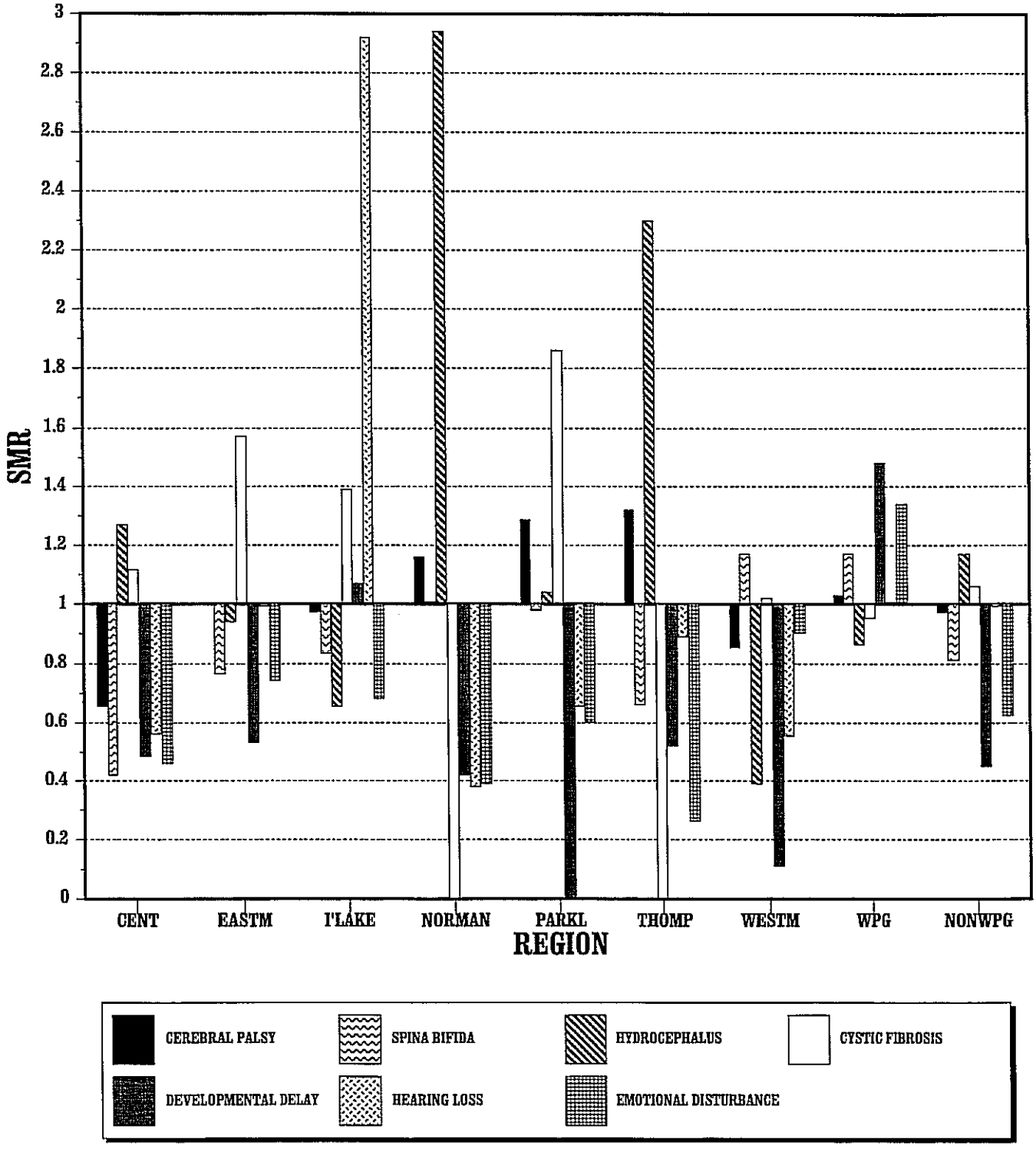


TABLE VI.2

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
MUSCULOSKELETAL										
# persons	987	684	726	140	744	88	1790	6624	5159	11783
CR	158.61	178.78	179.75	172.63	180.89	177.06	183.31	181.5	176.23	179.16
IAR	159.96	182.43	182.95	175.31	183.21	182.82	184.17	179.9	178.22	179.16
SMR (province)	0.89	1.02	1.02	0.98	1.02	1.02	1.03	1	0.99	1
SMR (low)	1.00	1.15	1.15	1.10	1.15	1.15	1.16	1.12	1.11	1.12
EV (province)	-	12	15	-	16	2	49	27	-	-
OTHER RESPIRATORY										
# persons	540	377	501	101	408	101	1150	3843	3178	7021
CR	86.77	98.54	124.04	124.54	99.2	203.22	117.77	105.3	108.56	106.75
IAR	85.38	95.79	121.25	122.54	96.98	194.79	116.2	106.96	106.51	106.75
SMR (province)	0.8	0.9	1.14	1.15	0.91	1.82	1.09	1	1	1
SMR (low)	1	1.125	1.425	1.4375	1.1375	2.275	1.3625	1.25	1.25	1.25
EV (province)	-	-	60	13	-	46	93	7	-	-
OTHER HEART										
# persons	581	367	413	79	477	79	961	3223	2957	6180
CR	93.36	95.92	102.25	97.41	115.97	158.95	98.41	88.31	101.01	93.97
IAR	91.86	95.89	103.25	99.35	113.78	159.07	95.81	89.27	99.67	93.97
SMR (province)	0.98	1.02	1.1	1.06	1.21	1.69	1.02	0.95	1.06	1
SMR (low)	1.03	1.07	1.16	1.12	1.27	1.78	1.07	1.00	1.12	1.05
EV (province)	-	7	37	4	83	32	18	-	169	-

* rate per 1,000 persons aged 75 years and over

Continued.../

TABLE VI.2

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CEREBROVASCULAR										
# persons	178	146	121	14	108	8	286	1164	861	2025
CR	28.60	38.16	29.96	17.26	26.26	16.10	29.29	31.89	29.41	30.79
IAR	28.10	37.93	29.99	17.53	25.69	15.95	28.50	32.32	28.94	30.79
SMR (province)	0.91	1.23	0.97	0.57	0.83	0.52	0.93	1.05	0.94	1.00
SMR (low)	1.75	2.37	1.87	1.10	1.60	1.00	1.79	2.02	1.81	1.92
EV (province)	-	27	-	-	-	-	-	55	-	-
ISCHEMIC HEART DISEASE										
# persons	354	328	331	46	266	24	768	3402	2117	5519
CR	56.89	85.73	81.95	56.72	64.67	48.29	78.65	93.22	72.32	83.91
IAR	56.16	83.74	80.08	55.99	63.48	46.59	77.78	94.46	71.15	83.91
SMR (province)	0.67	1.00	0.95	0.67	0.76	0.56	0.93	1.13	0.85	1.00
SMR (low)	1.20	1.79	1.70	1.20	1.36	1.00	1.66	2.02	1.52	1.79
EV (province)	-	-	-	-	-	-	-	380	-	-
OTHER GASTROINTESTINAL										
# persons	457	329	348	86	363	50	926	3104	2559	5663
CR	73.44	85.99	86.16	106.04	88.26	100.60	94.83	85.05	87.42	86.10
IAR	72.85	84.83	85.40	105.04	87.25	98.22	94.17	85.70	86.61	86.10
SMR (province)	0.85	0.99	0.99	1.22	1.01	1.14	1.09	1.00	1.01	1.00
SMR (low)	1.00	1.16	1.16	1.44	1.19	1.34	1.28	1.18	1.19	1.18
EV (province)	-	-	-	16	5	6	79	-	15	-

* rate per 1,000 persons aged 75 years and over

Continued.../

TABLE VI.2

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
NERVOUS SYSTEM										
# persons	207	134	90	20	113	9	362	1440	935	2375
CR	33.26	35.02	22.28	24.66	27.47	18.11	37.07	39.46	31.94	36.11
IAR	33.01	35.16	22.5	24.92	27.21	18.11	36.51	39.65	31.75	36.11
SMR (province)	0.91	0.97	0.62	0.69	0.75	0.5	1.01	1.1	0.88	1
SMR (low)	1.82	1.94	1.24	1.38	1.5	1	2.02	2.2	1.76	2
EV (province)	-	-	-	-	-	-	4	129	-	-
URINARY										
# persons	278	188	183	32	176	21	453	1510	1331	2841
CR	44.67	49.14	45.31	39.46	42.79	42.25	46.39	41.38	45.47	43.2
IAR	44.59	49.62	46.03	39.87	42.73	42.7	46.05	41.35	45.5	43.2
SMR (province)	1.03	1.15	1.07	0.92	0.99	0.99	1.07	0.96	1.05	1
SMR (low)	1.12	1.25	1.16	1.00	1.08	1.08	1.16	1.04	1.14	1.09
EV (province)	9	24	11	-	-	-	28	-	68	-
HYPERTENSION										
# persons	1047	618	853	100	716	79	1749	6285	5162	11447
CR	168.25	161.53	211.19	123.3	174.08	158.95	179.11	172.22	176.33	174.05
IAR	171.28	165.11	215.08	123.8	178.29	163.52	182.6	169.58	179.82	174.05
SMR (province)	0.98	0.95	1.24	0.71	1.02	0.94	1.05	0.97	1.03	1
SMR (low)	1.38	1.34	1.75	1.00	1.44	1.32	1.48	1.37	1.45	1.41
EV (province)	-	-	163	-	17	-	82	-	166	-

* rate per 1,000 persons aged 75 years and over

Continued.../

TABLE VI.2

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ILL-DEFINED										
# persons	1059	578	675	150	575	85	1614	6845	4736	11581
CR	170.18	151.07	167.12	184.96	139.80	171.03	165.28	187.56	161.78	176.09
IAR	169.75	151.78	168.54	186.29	139.44	171.91	164.23	187.71	161.62	176.09
SMR (province)	0.96	0.86	0.96	1.06	0.79	0.98	0.93	1.07	0.92	1.00
SMR (low)	1.22	1.09	1.22	1.34	1.00	1.24	1.18	1.35	1.16	1.27
EV (province)	-	-	-	8	-	-	-	424	-	-
MENTAL DISORDERS										
# persons	412	291	211	59	270	13	1018	3637	2274	5911
CR	66.21	76.06	52.24	72.75	65.65	26.16	104.25	99.66	77.68	89.88
IAR	66.36	78.97	54.26	76.22	66.15	27.96	102.89	98.91	78.42	89.88
SMR (province)	0.74	0.88	0.60	0.85	0.74	0.31	1.14	1.10	0.87	1.00
SMR (low)	2.39	2.84	1.94	2.74	2.39	1.00	3.68	3.55	2.81	3.23
EV (province)	-	-	-	-	-	-	129	332	-	-
OTHER CIRCULATION										
# persons	166	120	152	24	116	10	323	1235	911	2146
CR	26.68	31.36	37.63	29.59	28.20	20.12	33.08	33.84	31.12	32.63
IAR	26.45	31.05	37.39	29.45	27.87	19.77	32.77	34.09	30.83	32.63
SMR (province)	0.81	0.95	1.15	0.90	0.85	0.61	1.00	1.04	0.94	1.00
SMR (low)	1.33	1.56	1.89	1.48	1.39	1.00	1.64	1.70	1.54	1.64
EV (province)	-	-	19	-	-	-	1	53	-	-

* rate per 1,000 persons aged 75 years and over

Continued.../

TABLE VI.2

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ENDOCRINE										
# persons	550	419	387	72	416	53	1025	3362	2922	6284
CR	88.38	109.51	95.82	88.78	101.14	106.64	104.97	92.12	99.82	95.55
IAR	88.56	108.71	95.03	87.80	101.32	105.41	105.70	92.09	99.85	95.55
SMR (province)	0.93	1.14	0.99	0.92	1.06	1.10	1.11	0.96	1.05	1.00
SMR (low)	1.01	1.24	1.08	1.00	1.15	1.20	1.21	1.04	1.14	1.09
EV (province)	-	51	-	-	24	5	98	-	126	-

* rate per 1,000 persons aged 75 years and over

Figure 20

PHYSICIAN VISITS FOR FUNCTIONAL LIMITATION AMONG 75+, MANITOBA 1991

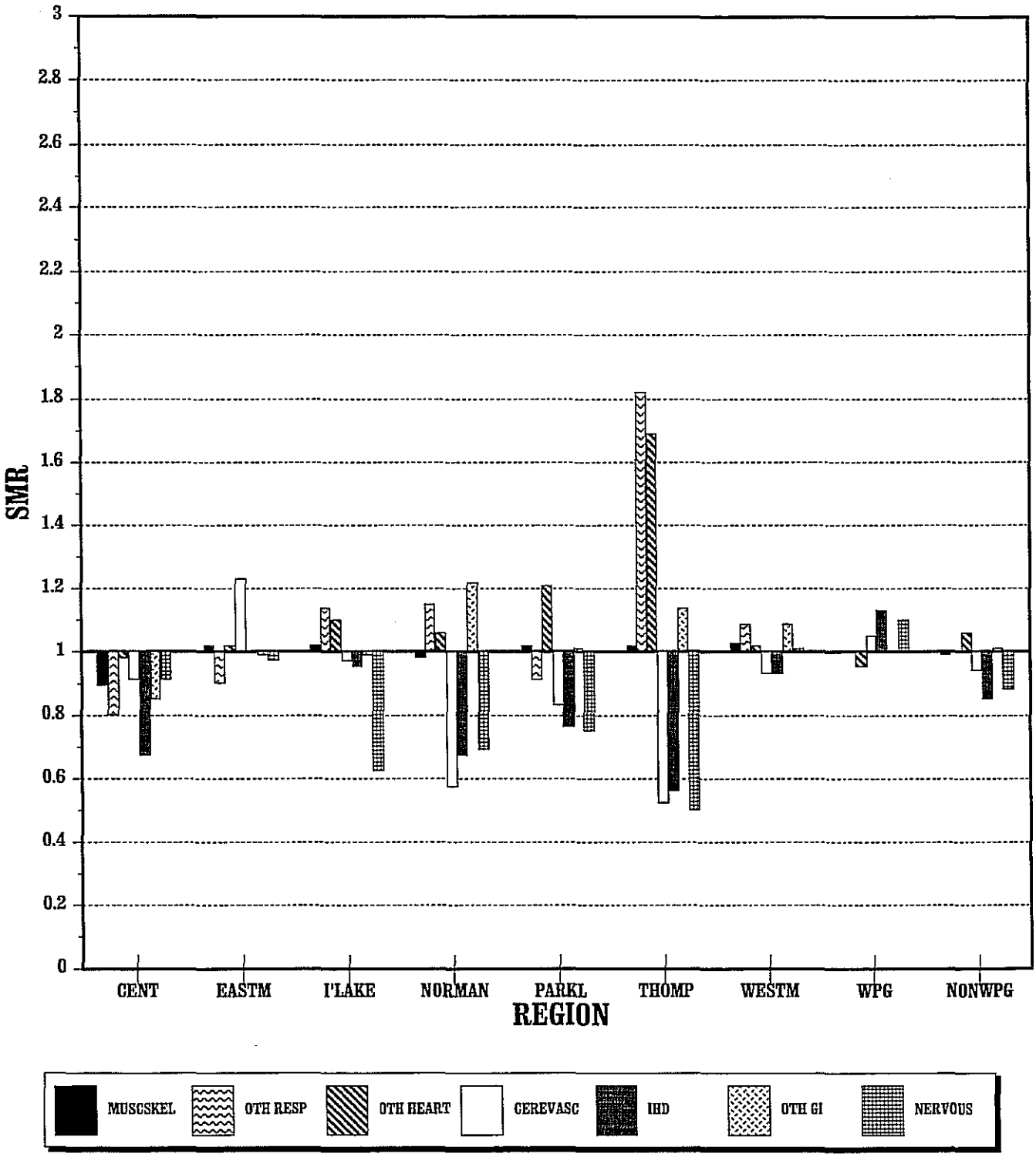


Figure 20

PHYSICIAN VISITS FOR FUNCTIONAL LIMITATION AMONG 75+, MANITOBA 1991

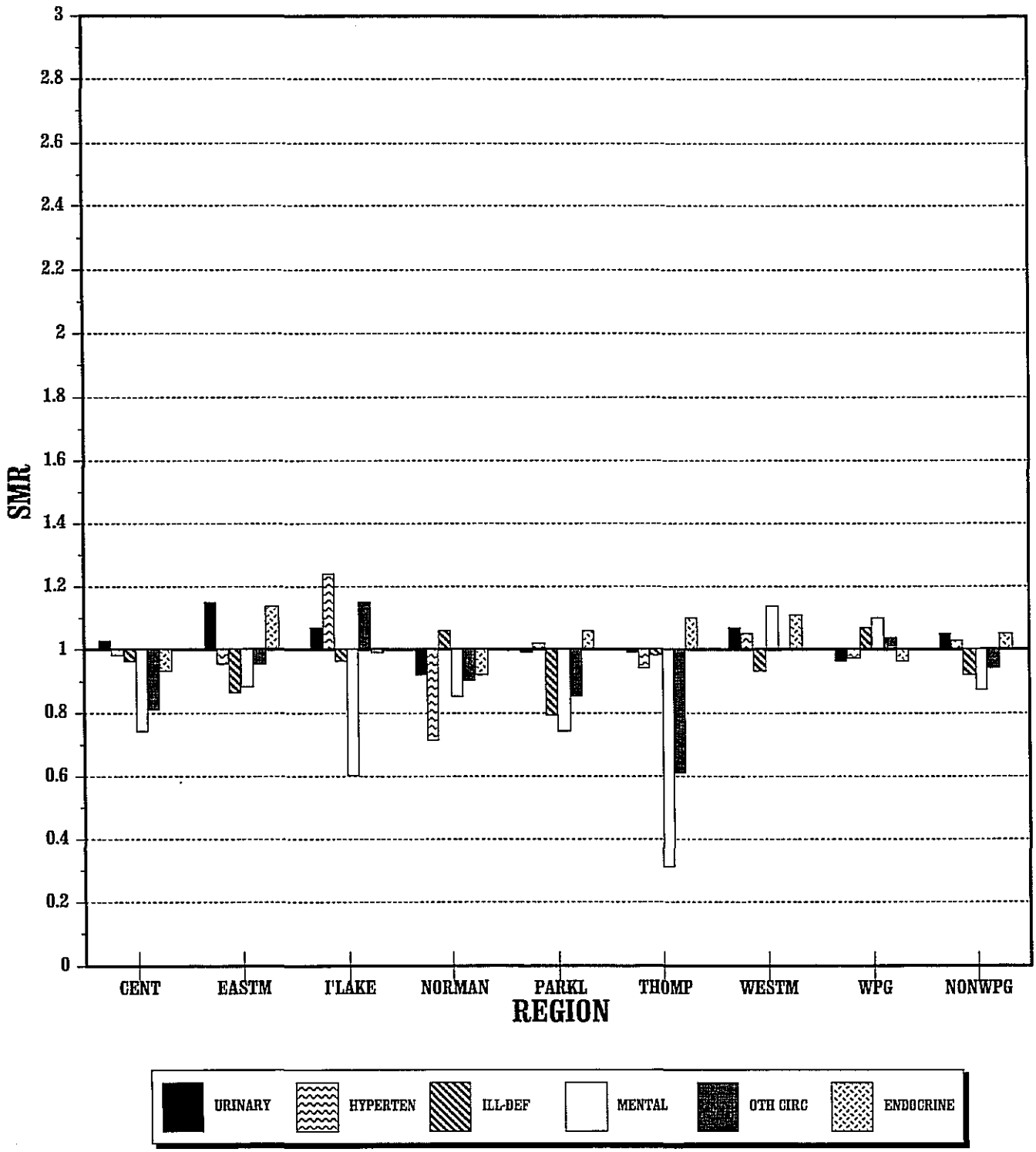


TABLE VI.3

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH RESTRICTED ACTIVITY DAYS AMONG PERSONS AGED 75 AND OVER*
(MANITOBA 1991/92)

CONDITION	REGION CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
UPPER RESPIRATORY										
# persons	263	231	192	54	254	16	524	1844	1534	3378
CR	42.26	60.38	47.54	66.58	61.76	32.19	53.66	50.53	52.4	51.36
IAR	42.32	60.2	47.38	66.18	61.83	32.01	53.87	50.5	52.43	51.36
SMR (province)	0.82	1.17	0.92	1.29	1.2	0.62	1.05	0.98	1.02	1
SMR (low)	1.32	1.89	1.48	2.08	1.94	1.00	1.69	1.58	1.65	1.61
EV	-	34	-	12	43	-	24	-	31	-
FRACTURES										
# persons	143	99	80	14	65	14	318	904	733	1637
CR	22.98	25.88	19.81	17.26	15.8	28.17	32.57	24.77	25.04	24.89
IAR	23.31	27.22	20.78	18.04	16.17	30.51	32.59	24.34	25.6	24.89
SMR (province)	0.94	1.09	0.83	0.72	0.65	1.23	1.31	0.98	1.03	1
SMR (low)	1.45	1.68	1.28	1.11	1.00	1.89	2.02	1.51	1.58	1.54
EV	-	8	-	-	-	3	75	-	20	-
SPRAINS										
# persons	24	15	28	4	14	1	41	281	127	408
CR	3.86	3.92	6.93	4.93	3.4	2.01	4.2	7.7	4.34	6.2
IAR	3.88	3.91	6.88	4.9	3.43	2.02	4.25	7.67	4.36	6.2
SMR (province)	0.63	0.63	1.11	0.79	0.55	0.33	0.68	1.24	0.7	1
SMR (low)	1.91	1.91	3.36	2.39	1.67	1.00	2.06	3.76	2.12	3.03
EV	-	-	3	-	-	-	-	54	-	-

* rate per 1,000 persons aged 75 years and over

Figure 21

PHYSICIAN VISITS FOR RESTRICTED ACTIVITY AMONG 75+, MANITOBA 1991

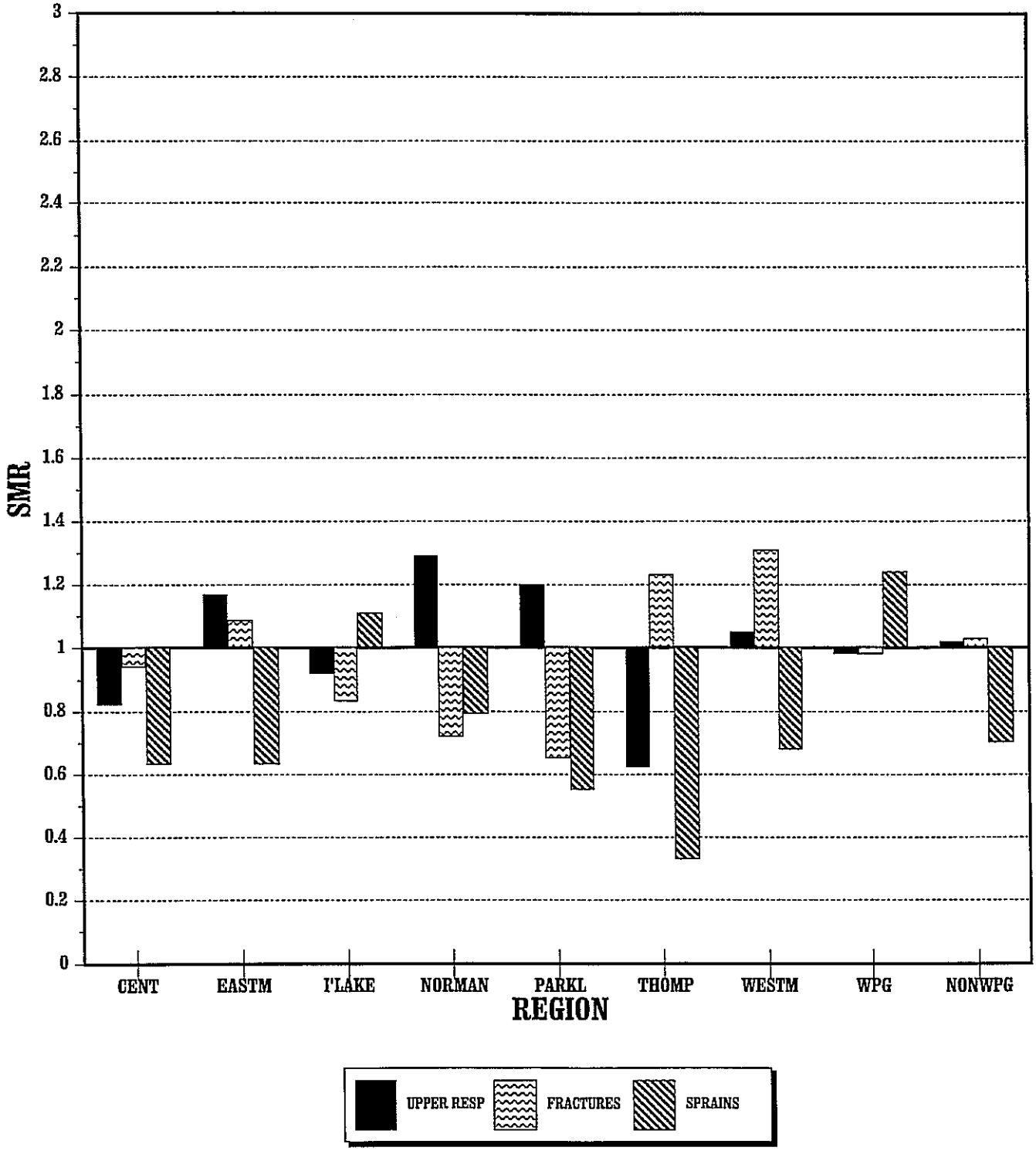


TABLE VI.4

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
MUSCULOSKELETAL										
# persons	6458	6360	5713	2068	3981	2311	9390	54721	36281	91002
CR	68.36	74.69	79.43	82.89	86.47	51.36	79.76	83.52	74.77	79.80
IAR	69.84	79.97	78.20	95.35	79.59	72.34	75.14	82.07	76.60	79.80
SMR (province)	0.88	1.00	0.98	1.19	1.00	0.91	0.94	1.03	0.96	1.00
SMR (low)	1.00	1.14	1.11	1.35	1.14	1.03	1.07	1.17	1.09	1.14
EV (province)	-	14	-	337	-	-	-	1517	-	-
OTHER RESPIRATORY										
# persons	4579	3813	4588	1399	2420	2123	7541	39459	26463	65922
CR	48.47	44.78	63.79	56.07	52.57	47.18	64.06	60.23	54.53	57.81
IAR	46.77	44.65	63.31	57.95	49.30	48.61	61.12	61.24	53.35	57.81
SMR (province)	0.81	0.77	1.10	1.00	0.85	0.84	1.06	1.06	0.92	1.00
SMR (low)	1.05	1.00	1.43	1.30	1.10	1.09	1.38	1.38	1.19	1.30
EV (province)	-	-	399	3	-	-	409	2213	-	-
OTHER HEART										
# persons	1028	743	839	187	776	224	1595	6435	5392	11827
CR	10.88	8.73	11.67	7.50	16.86	4.98	13.55	9.82	11.11	10.37
IAR	10.00	10.29	11.46	11.57	11.83	15.01	10.27	10.05	10.78	10.37
SMR (province)	0.96	0.99	1.11	1.12	1.14	1.45	0.99	0.97	1.04	1.00
SMR (low)	1.00	1.03	1.16	1.17	1.19	1.51	1.03	1.01	1.08	1.04
EV (province)	-	-	80	19	96	69	-	-	204	-

* rate per 1,000 population

Continued.../

TABLE VI.4

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
CEREBROVASCULAR										
# persons	287	360	274	47	176	42	495	2341	1681	4022
CR	3.04	4.23	3.81	1.88	3.82	0.93	4.20	3.57	3.46	3.53
IAR	2.79	4.97	3.71	2.93	2.67	2.90	3.18	3.66	3.35	3.53
SMR (province)	0.79	1.41	1.05	0.83	0.76	0.82	0.90	1.04	0.95	1.00
SMR (low)	1.04	1.86	1.38	1.09	1.00	1.08	1.18	1.37	1.25	1.32
EV (province)	-	104	13	-	-	-	-	87	-	-
ISCHEMIC HEART DISEASE										
# persons	1014	966	1099	194	686	164	1802	9883	5925	15808
CR	10.73	11.34	15.28	7.78	14.90	3.64	15.31	15.09	12.21	13.86
IAR	10.10	12.81	14.33	11.43	10.69	10.08	12.10	15.41	11.88	13.86
SMR (province)	0.73	0.92	1.03	0.82	0.77	0.73	0.87	1.11	0.86	1.00
SMR (low)	1.00	1.26	1.41	1.12	1.05	1.00	1.19	1.52	1.18	1.37
EV (province)	-	-	36	-	-	-	-	991	-	-
OTHER GASTROINTESTINAL										
# persons	2982	2965	2619	1209	1981	1646	5066	25184	18468	43652
CR	31.56	34.82	36.41	48.46	43.03	36.58	43.03	38.44	38.06	38.28
IAR	31.57	36.46	35.86	54.33	39.39	47.25	40.38	38.23	38.34	38.28
SMR (province)	0.82	0.95	0.94	1.42	1.03	1.23	1.05	1.00	1.00	1.00
SMR (low)	1.00	1.16	1.15	1.73	1.26	1.50	1.28	1.22	1.22	1.22
EV (province)	-	-	-	357	56	313	264	-	32	0

* rate per 1,000 population

Continued.../

TABLE VI.4

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
NERVOUS SYSTEM										
# persons	1026	863	774	316	589	415	1622	8377	5605	13982
CR	10.86	10.13	10.76	12.67	12.79	9.22	13.78	12.79	11.55	12.26
IAR	11.02	10.88	10.72	14.61	11.76	12.88	12.86	12.58	11.81	12.26
SMR (province)	0.90	0.89	0.87	1.19	0.96	1.05	1.05	1.03	0.96	1.00
SMR (low)	1.03	1.02	1.00	1.37	1.10	1.21	1.21	1.18	1.10	1.15
EV (province)	-	-	-	51	-	20	75	215	-	-
URINARY										
# persons	1612	1600	1328	467	891	902	2223	11591	9023	20614
CR	17.06	18.79	18.46	18.72	19.35	20.05	18.88	17.69	18.59	18.08
IAR	17.19	19.96	18.55	20.84	18.13	25.31	17.85	17.48	18.91	18.08
SMR (province)	0.95	1.10	1.03	1.15	1.00	1.40	0.99	0.97	1.05	1.00
SMR (low)	1.00	1.16	1.08	1.21	1.05	1.47	1.04	1.02	1.11	1.05
EV (province)	-	151	34	62	3	258	-	-	397	-
HYPERTENSION										
# persons	3949	3313	4125	745	2453	929	6084	29798	21598	51396
CR	41.80	38.91	57.35	29.86	53.28	20.65	51.68	45.48	44.51	45.07
IAR	41.24	43.84	54.91	41.11	42.43	46.00	44.08	45.16	44.94	45.07
SMR (province)	0.91	0.97	1.22	0.91	0.94	1.02	0.98	1.00	1.00	1.00
SMR (low)	1.00	1.07	1.34	1.00	1.03	1.12	1.08	1.10	1.10	1.10
EV (province)	-	-	739	-	-	19	-	62	-	-

* rate per 1,000 population

Continued.../

TABLE VI.4

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ILL-DEFINED										
# persons	7327	6177	6148	2279	3116	2841	8920	57368	36808	94176
CR	77.56	72.54	85.48	91.35	67.68	63.14	75.77	87.56	75.85	82.58
IAR	77.33	75.40	85.17	99.41	63.48	75.13	72.04	87.20	76.29	82.58
SMR (province)	0.94	0.91	1.03	1.20	0.77	0.91	0.87	1.06	0.92	1.00
SMR (low)	1.08	1.05	1.18	1.38	0.89	1.05	1.00	1.22	1.06	1.15
EV (province)	-	-	187	386	-	-	-	3036	-	-
MENTAL DISORDERS										
# persons	2413	2735	2389	917	1581	1250	4783	31848	16068	47916
CR	25.54	32.12	33.22	36.75	34.34	27.78	40.63	48.61	33.11	42.02
IAR	26.47	34.34	33.30	41.13	33.21	36.67	39.25	47.39	34.31	42.02
SMR (province)	0.63	0.82	0.79	0.98	0.79	0.87	0.93	1.13	0.82	1.00
SMR (low)	1.00	1.30	1.25	1.56	1.25	1.38	1.48	1.79	1.30	1.59
EV (province)	-	-	-	-	-	-	-	3612	-	-
OTHER CIRCULATION										
# persons	683	561	617	188	390	195	1124	5488	3758	9246
CR	7.23	6.59	8.58	7.54	8.47	4.33	9.55	8.38	7.74	8.11
IAR	7.16	7.28	8.32	9.71	6.99	8.08	8.30	8.33	7.81	8.11
SMR (province)	0.88	0.90	1.03	1.20	0.86	1.00	1.02	1.03	0.96	1.00
SMR (low)	1.02	1.05	1.20	1.40	1.00	1.16	1.19	1.20	1.12	1.16
EV (province)	-	-	16	31	-	-	27	144	-	-

* rate per 1,000 population

Continued.../

TABLE VI.4

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH FUNCTIONAL LIMITATIONS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
ENDOCRINE										
# persons	2747	2899	2922	915	2224	1082	4885	24610	17674	42284
CR	29.08	34.04	40.63	36.67	48.31	24.05	41.50	37.56	36.42	37.08
IAR	29.25	37.16	38.97	46.30	41.02	42.66	37.15	37.14	36.99	37.08
SMR (province)	0.79	1.00	1.05	1.25	1.11	1.15	1.00	1.00	1.00	1.00
SMR (low)	1.00	1.27	1.33	1.58	1.41	1.46	1.27	1.27	1.27	1.27
EV (province)	.	7	142	182	214	142	9	40	.	.

* rate per 1,000 population

Figure 22

PHYSICIAN VISITS FOR FUNCTIONAL LIMITATION AMONG ALL, MANITOBA 1991

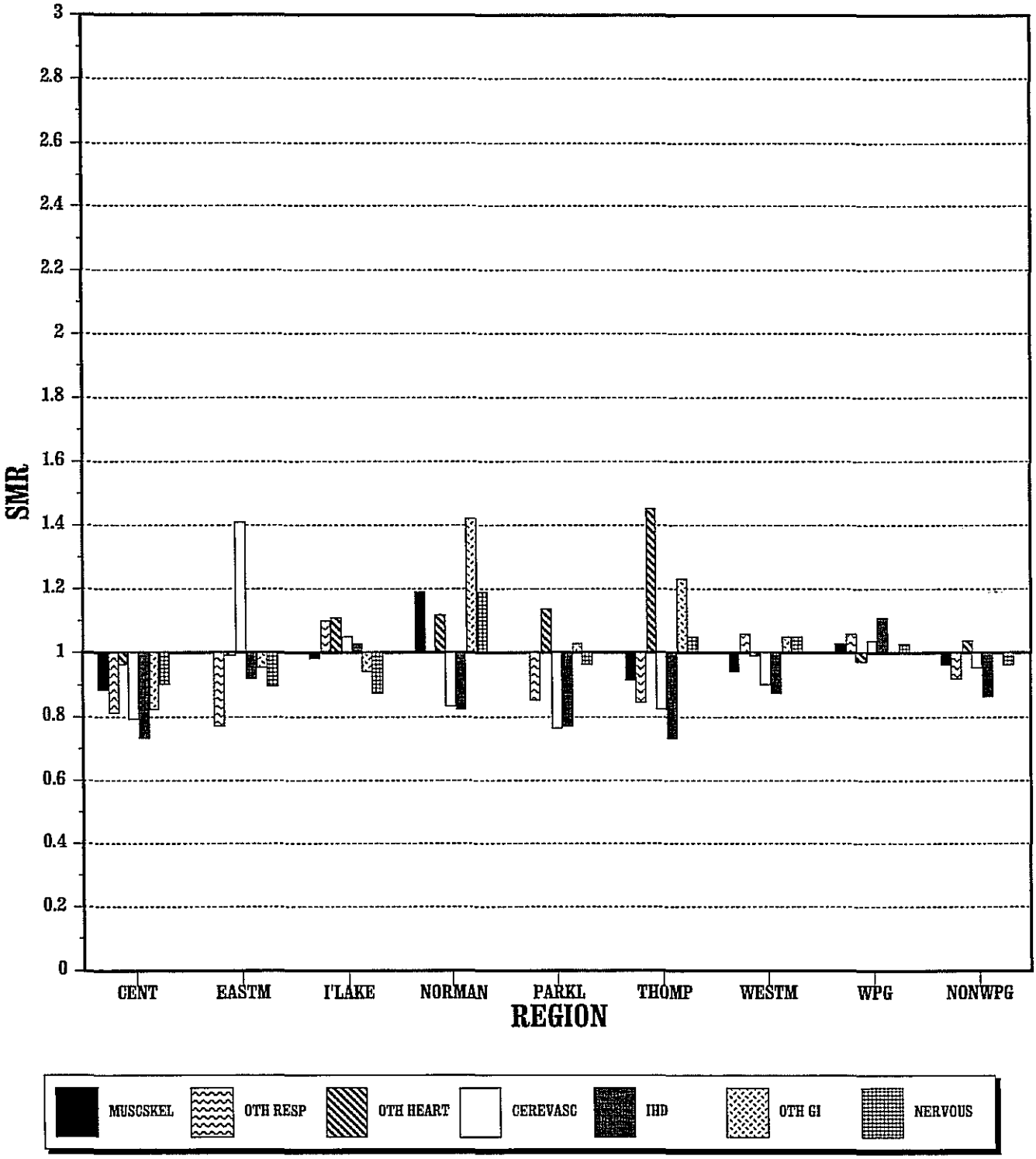


Figure 22

PHYSICIAN VISITS FOR FUNCTIONAL LIMITATION AMONG ALL, MANITOBA 1991

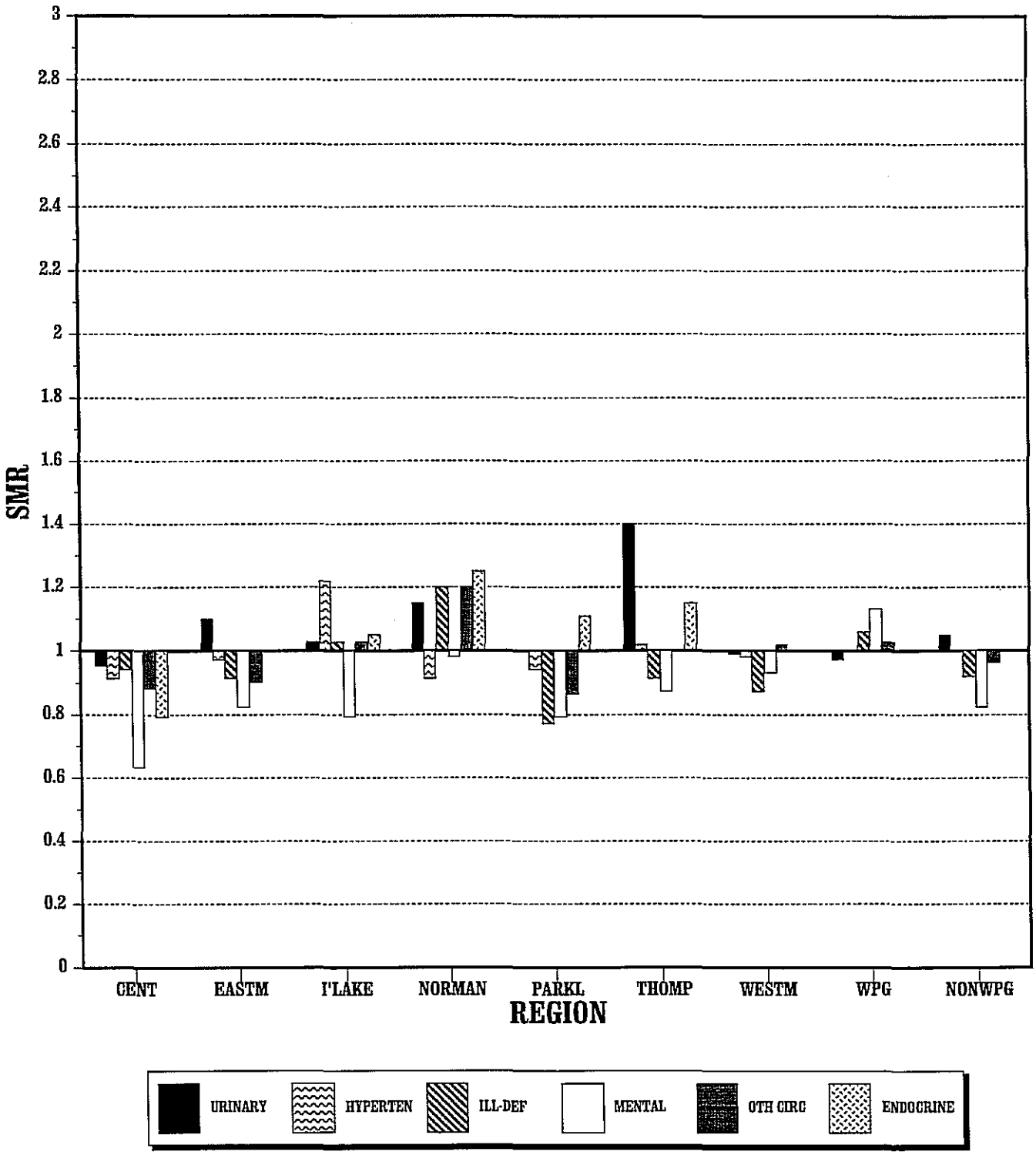


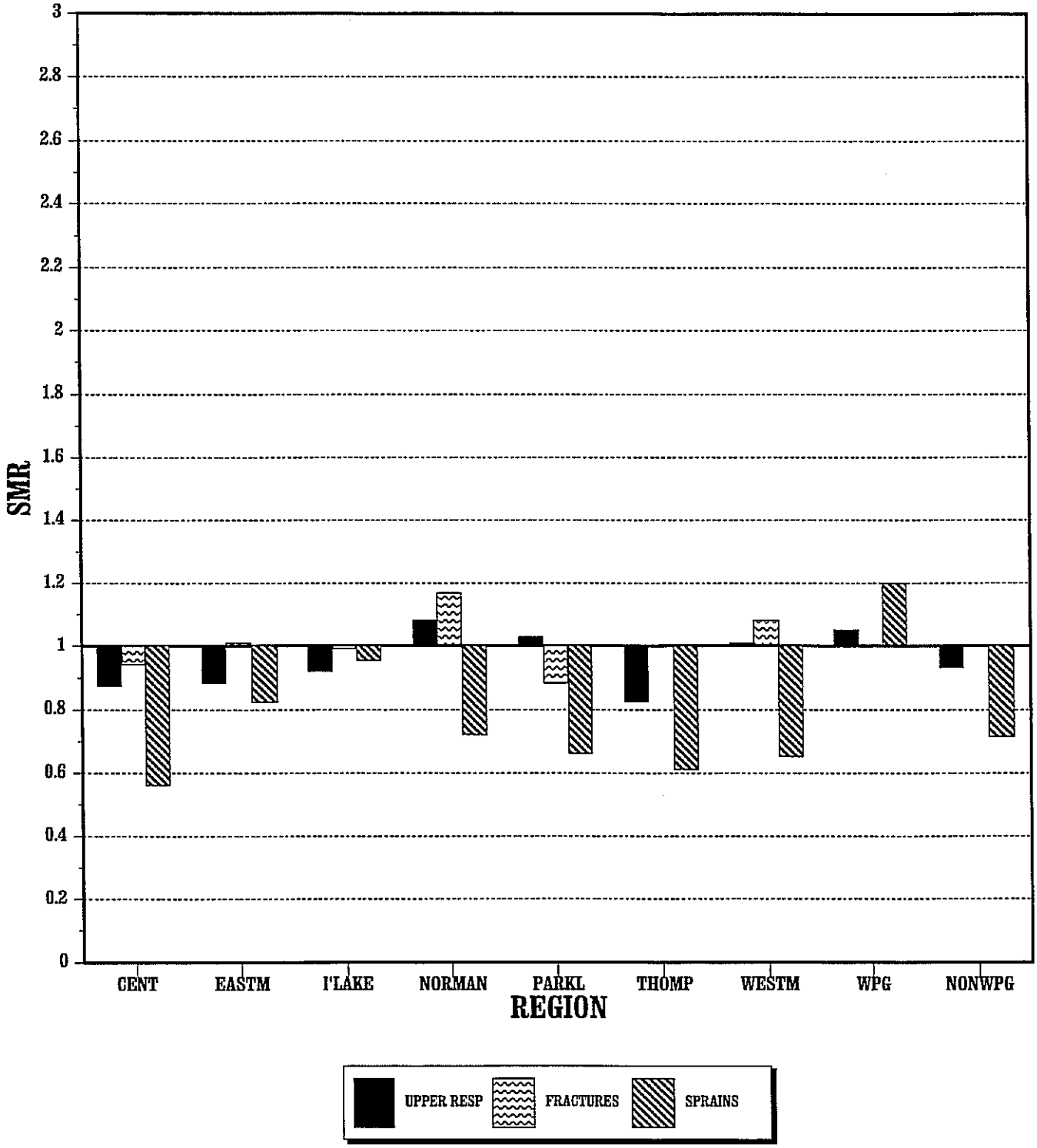
TABLE VI.5

VISITS TO PHYSICIANS FOR MEDICAL CONDITIONS ASSOCIATED WITH RESTRICTED ACTIVITY DAYS AMONG ALL PERSONS*
(MANITOBA 1991/92)

CONDITION	REGION									
	CENTRAL	EASTMAN	INTERLAKE	NORMAN	PARKLAND	THOMPSON	WESTMAN	WINNIPEG	NON WINNIPEG	PROVINCE
UPPER RESPIRATORY										
# persons	9923	9229	7644	3393	5320	5145	13597	78936	54251	133187
CR	105.04	108.38	106.28	136.00	115.56	114.35	115.50	120.48	111.80	116.79
IAR	101.47	103.34	107.47	126.68	119.91	95.37	117.97	122.99	108.81	116.79
SMR (province)	0.87	0.88	0.92	1.08	1.03	0.82	1.01	1.05	0.93	1.00
SMR (low)	1.06	1.07	1.12	1.32	1.26	1.00	1.23	1.28	1.13	1.22
EV	-	-	-	265	138	-	136	3979	-	-
FRACTURES										
# persons	1198	1131	934	379	557	588	1734	8539	6521	15060
CR	12.68	13.28	12.99	15.19	12.10	13.07	14.73	13.03	13.44	13.21
IAR	12.38	13.38	13.02	15.50	11.57	13.24	14.27	13.16	13.27	13.21
SMR (province)	0.94	1.01	0.99	1.17	0.88	1.00	1.08	1.00	1.00	1.00
SMR (low)	1.07	1.15	1.13	1.33	1.00	1.14	1.23	1.14	1.14	1.14
EV	-	15	-	56	-	2	129	-	29	-
SPRAINS										
# persons	1063	1459	1422	392	590	582	1524	17026	7032	24058
CR	11.25	17.13	19.77	15.71	12.82	12.94	12.95	25.99	14.49	21.10
IAR	11.82	17.38	20.01	15.28	13.84	12.86	13.67	25.39	14.96	21.10
SMR (province)	0.56	0.82	0.95	0.72	0.66	0.61	0.65	1.20	0.71	1.00
SMR (low)	1.00	1.46	1.70	1.29	1.18	1.09	1.16	2.14	1.27	1.79
EV	-	-	-	-	-	-	-	2882	-	-

* rate per 1,000 population

Figure 23
PHYSICIAN VISITS FOR RESTRICTED ACTIVITY AMONG ALL, MANITOBA 1991



VII. Summary of Indicators

TABLE VII.1

SUMMARY OF STANDARDIZED MORBIDITY AND MORTALITY RATIOS FOR VARIOUS INDICATORS, MANITOBA 1991/92

INDICATOR	CENT	EASTM	PLAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
I. Demographic Profile										
proportion of population 0-24 years	40.2	41.1	36.9	43.9	35.7	54.8	35.5	34.5	27.3	36.8
proportion of population 75+ years	6.5	4.4	5.4	3.2	8.6	1.1	8.1	5.4	4.0	5.6
II. Low Birth Weight										
<2500 low birth weight	0.85	0.86	0.73	0.75	**0.53**	1.07	0.97	1.11	0.87	42.8
III. Health Care System Sensitive Indicators †										
amenable deaths	1.10	0.86	0.97	1.66	0.94	1.32	1.03	0.97	1.03	0.5
single event deaths	0.99	0.93	0.96	1.14	0.85	1.01	0.95	1.04	0.95	1.0
rate event deaths	0.88	0.99	0.82	1.31	1.17	1.22	0.87	1.05	0.94	1.1
amenable hospitalizations	**1.12**	**1.08**	**1.08**	**1.66**	**1.85**	**2.19**	**1.40**	**0.72**	**1.37**	15.9
single event hospitalizations	1.01	0.99	**1.19**	**1.48**	**1.37**	**2.02**	**1.27**	**0.82**	**1.23**	8.2
rate event hospitalizations	**1.15**	**1.24**	**1.23**	**2.14**	**1.59**	**2.60**	**1.28**	**0.72**	**1.37**	10.4
ambulatory care hospitalizations	**1.20**	**1.13**	**1.24**	**1.87**	**1.95**	**2.54**	**1.43**	**0.64**	**1.46**	17.7
avoidable hospitalizations	**1.16**	1.04	**1.19**	**1.69**	**1.36**	**1.96**	**1.27**	**0.79**	**1.27**	6.2
IV. Mortality Rates: Population and Cause-Specific †										
female deaths	0.98	1.01	1.05	1.27	0.88	**1.50**	0.92	1.01	0.98	7.3
male deaths	0.97	0.95	1.03	**1.33**	0.97	**1.51**	0.91	1.01	0.99	8.3
0-64 years deaths	0.90	1.07	1.09	1.41	1.17	**1.71**	0.83	0.96	1.06	1.9

INDICATOR	CENT	EASTM	I'LAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
Infectious Disease & Injury Mortality Indicators §										
motor vehicle	0.99	1.67	2.05	1.21	1.51	**2.70**	1.10	**0.62**	**1.50**	10.1
falls	0.91	1.10	0.54	2.00	0.67	0.53	1.46	0.96	1.05	6.6
drowning and suffocation	0.50	1.45	0.67	1.00	1.22	**4.54**	1.28	0.74	1.33	4.1
poisoning	0.00	0.86	0.00	1.57	2.00	2.15	0.81	1.16	0.79	1.5
fire and flames	1.10	0.32	1.47	4.56	2.08	3.53	0.83	0.69	1.40	1.9
suicide	0.70	0.87	1.16	1.37	1.09	0.94	0.55	1.10	0.86	11.7
homicide	1.07	1.76	0.47	1.25	1.52	3.55	1.01	0.73	1.38	3.1
other injuries	0.76	1.28	1.09	1.62	1.19	**2.65**	0.71	0.90	1.13	22.8
all injuries	0.80	1.31	1.17	1.62	1.23	**2.77**	0.98	**0.84**	**1.22**	46.9
pneumonia	1.06	0.93	0.91	1.60	1.10	1.09	1.02	0.98	1.03	33.3
AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.00	0.8
Cancer Mortality Indicators §										
lung	0.84	0.90	1.08	0.92	0.80	1.01	0.93	1.07	0.91	48.3
bladder	1.19	1.09	0.27	1.28	0.83	1.67	0.84	1.09	0.89	5.0
kidney	1.16	1.46	0.86	0.00	0.82	1.42	0.92	0.99	1.01	4.6
colon	0.59	0.97	0.82	0.85	0.84	0.65	0.88	1.15	0.81	22.0
breast	0.86	1.28	1.20	1.03	0.96	0.57	0.83	1.02	0.97	36.9
other cancer	1.10	1.02	1.02	0.89	0.83	0.68	0.87	1.04	0.95	105.8
all cancers	0.97	1.02	1.01	0.89	0.83	0.79	0.88	1.06	0.93	204.5
Chronic Disease Mortality Indicators §										
asthma	0.68	1.63	0.65	1.40	1.08	0.00	1.20	0.98	1.03	2.2
vascular complications	0.97	0.98	0.67	1.20	1.26	1.69	0.85	1.04	0.95	58.2
hypertension	0.74	0.66	0.99	1.86	1.41	1.70	1.22	0.95	1.06	5.6
diabetes	0.92	1.01	1.39	1.99	1.07	0.86	0.82	0.98	1.02	15.0
ischemic heart disease	0.88	0.90	0.88	1.24	1.01	0.87	0.97	1.05	0.94	173.0
emphysema	1.29	0.60	1.08	2.14	0.71	1.43	0.90	1.01	0.99	24.2
all chronic diseases	0.96	0.92	0.97	1.36	1.12	1.28	0.91	1.02	0.98	201.8

INDICATOR	CENT	EASTM	I'LAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
V. Hospitalizations										
Infectious Disease Indicators §										
pneumonia	1.11	0.89	**1.29**	**1.93**	**1.96**	**4.14**	**1.26**	**0.61**	**1.48**	315.6
influenza	**1.57**	**1.54**	**1.71**	**0.19**	**1.77**	**3.84**	**2.60**	**0.23**	**1.98**	25.2
hepatitis	0.00	0.00	0.70	3.78	1.16	2.17	0.00	1.26	0.62	2.1
tuberculosis	**0.17**	0.56	0.21	0.65	0.00	**7.58**	0.39	1.07	0.90	6.5
STD	0.38	0.42	1.55	2.54	0.00	1.96	1.30	0.97	1.04	2.8
pelvic inflammatory disease	1.05	0.66	1.14	1.72	1.63	**2.20**	1.24	**0.84**	**1.24**	42.7
AIDS	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.53	0.19	2.3
all infectious diseases	1.11	0.89	**1.28**	**1.79**	**1.87**	**3.81**	**1.32**	**0.63**	**1.46**	395.1
Injury Indicators §										
motor vehicle	**1.32**	**1.39**	1.29	**1.91**	**1.85**	**1.86**	1.20	**0.68**	**1.43**	83.13
falls	**1.14**	**1.15**	1.09	**1.85**	**1.28**	**2.02**	**1.32**	**0.78**	**1.28**	366.62
vehicular non-traffic	**1.38**	1.07	**1.53**	**2.80**	**1.97**	**2.95**	**1.31**	**0.51**	**1.63**	42.09
drowning	0.97	1.00	0.89	**3.06**	0.93	**2.90**	1.11	0.77	**1.28**	17.01
poisoning	1.12	0.92	1.29	**2.42**	**2.13**	**2.42**	**1.42**	**0.63**	**1.47**	27.27
fire and flames	1.30	1.11	1.55	**3.25**	2.10	**3.65**	1.43	**0.42**	**1.75**	7.10
attempted suicide	0.88	1.01	0.67	**2.62**	1.08	**3.73**	1.23	**0.74**	**1.37**	65.9
attempted homicide	**0.67**	0.88	0.76	**2.78**	0.97	**4.86**	**0.60**	**0.79**	**1.29**	74.8
all injuries	1.02	**1.15**	1.00	**2.00**	**1.38**	**2.54**	**1.16**	**0.78**	**1.29**	790.5
Cancer Hospitalization Indicators §										
lung	0.86	0.86	1.08	0.94	0.94	1.06	0.92	1.05	0.93	74.2
non-melanoma skin	1.35	0.41	1.41	0.00	1.44	0.86	0.50	1.07	0.91	6.6
bladder	1.06	1.00	1.08	0.93	1.21	0.54	1.12	0.94	1.07	26.0
colon	0.83	1.14	0.95	0.97	1.07	0.66	1.09	1.00	1.00	67.9
breast	0.87	1.19	1.40	0.63	**0.61**	0.52	1.09	0.99	1.01	128.2
kidney	1.21	0.88	1.55	1.88	1.67	1.73	1.01	0.81	1.25	11.8
other cancers	1.00	1.02	1.13	1.10	0.95	1.01	1.01	0.98	1.02	520.9
all cancers	0.97	1.01	**1.12**	1.03	0.96	0.93	1.01	0.99	1.01	746.1

INDICATOR	CENT	EASTM	PLAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
Chronic Disease Hospitalization Indicators §										
ischemic heart	0.91	1.06	1.11	**1.37**	**1.20**	1.16	**1.13**	**0.93**	**1.09**	517.8
diabetes	**1.37**	**1.34**	**1.25**	**2.93**	**1.93**	**2.96**	**1.21**	**0.63**	**1.50**	257.1
asthma	**1.19**	0.98	1.11	1.30	**1.48**	0.95	**1.45**	**0.83**	**1.21**	211.9
hypertension	**1.36**	**1.47**	**1.37**	**1.94**	**1.94**	**2.53**	**1.40**	**0.61**	**1.53**	181.9
vascular complications	1.06	**1.41**	**1.46**	1.27	1.09	**1.73**	**1.23**	**0.80**	**1.25**	200.9
emphysema	0.93	0.82	**1.38**	**2.02**	**1.25**	**2.48**	**1.34**	**0.81**	**1.23**	190.8
all chronic diseases	**1.09**	**1.13**	**1.22**	**1.66**	**1.40**	**1.64**	**1.24**	**0.81**	**1.25**	1473.3
VI. Visits to Physicians †										
Disability Related Reasons <24 Years †										
cerebral palsy	0.65	1.07	0.97	1.16	1.29	1.31	0.85	1.02	0.98	0.5
spina bifida	0.42	0.76	0.62	1.01	0.98	0.88	1.16	1.17	0.81	0.2
hydrocephalus	1.27	0.94	0.65	2.94	1.04	2.29	0.39	0.85	1.17	0.1
cystic fibrosis	1.13	1.59	1.17	0.00	1.89	0.00	0.89	0.99	1.01	0.2
developmental delay	0.48	**0.40**	1.08	0.42	0.00	0.51	**0.11**	**1.49**	**0.43**	0.2
hearing loss	**0.65**	1.01	**2.88**	**0.37**	0.65	0.92	**0.60**	0.98	1.03	0.8
emotional disturbance	**0.48**	**0.77**	**0.69**	**0.39**	**0.58**	**0.30**	0.87	**1.33**	**0.63**	3.1
Functional Limitations 75+ Years †										
musculoskeletal	**0.90**	1.00	1.01	1.00	1.02	1.04	1.04	1.00	1.00	171.3
other respiratory	**0.80**	**0.87**	**1.11**	1.13	0.92	**1.84**	1.08	1.01	0.99	101.8
other heart	1.00	1.01	1.08	1.04	**1.22**	**1.68**	1.02	**0.95**	**1.06**	91.0
cerebrovascular	0.92	**1.21**	0.98	0.58	0.83	0.46	0.93	1.05	0.94	30.0
ischemic heart disease	**0.67**	1.00	0.97	**0.67**	**0.75**	**0.54**	0.95	**1.11**	**0.86**	79.4
other gastrointestinal	**0.85**	1.00	0.99	1.21	1.02	1.14	**1.10**	0.99	1.01	82.7
nervous system	0.94	0.98	**0.63**	0.68	**0.72**	**0.46**	1.03	**1.09**	**0.89**	34.6
urinary	1.03	1.12	1.07	0.96	0.99	1.03	1.06	0.96	1.05	41.7
hypertension	0.99	0.95	**1.26**	**0.71**	1.03	0.89	1.05	**0.97**	**1.04**	162.1
ill-defined	0.97	**0.85**	0.97	1.09	**0.80**	0.97	**0.94**	**1.06**	**0.92**	170.6
mental disorders	**0.76**	**0.84**	**0.60**	0.91	**0.74**	**0.30**	**1.17**	**1.09**	**0.88**	86.7

INDICATOR	CENT	EASTM	LAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
other circulation	0.87	0.91	1.14	0.97	0.86	0.59	1.03	1.03	0.96	30.2
endocrine	0.94	1.14	1.01	0.93	1.05	1.11	1.12	0.96	1.05	89.1
Restricted Activity Days 75+ Years †										
upper respiratory	0.84	1.15	0.94	1.34	1.26	0.77	1.04	0.97	1.03	49.8
fractures	0.93	1.05	0.84	0.80	0.66	1.27	1.31	0.98	1.03	24.1
sprains	0.65	0.61	1.18	0.82	0.61	0.34	0.68	1.22	0.72	6.0
Grouped Functional Limitations 75+ Years †										
all musculoskeletal	0.89	0.99	1.00	0.95	0.97	1.06	1.04	1.01	0.99	203.4
all cardiovascular	0.94	0.99	1.10	0.79	1.00	0.90	1.01	1.00	1.00	364.5
all respiratory	0.83	0.95	1.05	1.17	1.03	1.46	1.08	0.99	1.01	156.2
other functional limitations	0.94	1.00	0.92	0.97	0.91	0.91	1.04	1.02	0.97	447.3
Functional Limitations All Ages †										
musculoskeletal	0.88	1.00	0.98	1.2	1.00	0.91	0.95	1.03	0.96	79.8
other respiratory	0.81	0.77	1.1	1.00	0.86	0.85	1.06	1.06	0.93	57.8
other heart	0.97	0.99	1.1	1.11	1.15	1.44	1.00	0.97	1.04	10.4
cerebrovascular	0.78	1.41	1.05	0.83	0.77	0.81	0.91	1.04	0.95	3.5
ischemic heart disease	0.73	0.92	1.04	0.82	0.78	0.74	0.88	1.11	0.86	13.9
other gastrointestinal	0.83	0.95	0.94	1.42	1.03	1.24	1.06	1.00	1.00	38.3
nervous system	0.91	0.89	0.88	1.20	0.96	1.06	1.05	1.02	0.97	12.3
urinary	0.96	1.10	1.04	1.16	1.02	1.41	0.99	0.96	1.05	18.1
hypertension	0.92	0.97	1.21	0.90	0.95	1.03	0.99	1.00	1.00	45.1
ill-defined	0.94	0.92	1.04	1.20	0.77	0.92	0.88	1.05	0.93	82.6
mental disorders	0.64	0.82	0.81	0.99	0.80	0.88	0.94	1.12	0.82	42.0
other circulation	0.89	0.90	1.03	1.21	0.89	0.99	1.03	1.02	0.97	7.7
endocrine	0.8	1.00	1.05	1.25	1.12	1.14	1.01	1.00	1	37.1

INDICATOR	CENT	EASTM	I'LAKE	NORM	PARKL	THOMP	WESTM	WPG	NON WPG	MAN RATE
Restricted Activity Days All Ages †										
upper respiratory	**0.87**	**0.88**	**0.93**	**1.09**	**1.04**	**0.83**	1.01	**1.05**	**0.93**	116.8
fractures	0.94	1.02	0.98	**1.19**	**0.89**	1.01	**1.07**	1.00	1.01	13.2
sprains	**0.56**	**0.82**	0.96	**0.73**	**0.66**	**0.61**	**0.65**	**1.20**	**0.71**	21.1
Grouped Functional Limitations All Ages †										
all musculoskeletal	**0.85**	**0.97**	0.98	**1.10**	**0.94**	**0.87**	**0.92**	**1.05**	**0.93**	117.0
all cardiovascular	**0.90**	0.97	**1.13**	0.94	**0.93**	1.00	**0.97**	**1.02**	**0.98**	76.8
all respiratory	**0.86**	**0.85**	0.99	**1.04**	0.98	**0.83**	**1.02**	**1.05**	**0.93**	179.4
other functional limitations	**0.87**	**0.93**	0.98	**1.13**	**0.92**	1.01	**0.96**	**1.04**	**0.95**	224.5

† Rate per 1,000 population
§ Rate per 100,00 population

═══ Difference is significant $p < 0.01$
___ Difference is significant $p < 0.05$

SMR below 1 = lower than provincial average
SMR above 1 = higher than provincial average

APPENDIX A

List Of Indicators And Corresponding ICD9-CM Codes

TABLE A1: List of Medical Conditions Associated with Perceived health status, role limitation, functional limitations and restricted activity days.

Rank	PHS	RL	FL	RAD
1	Musculoskeletal ICD: 710-739	Musculoskeletal	Musculoskeletal	Other diseases of respiratory system
2	Other disease respiratory system ICD: 480-519	Disease pulmonary Circulation & other heart disease ICD: 415-429	Other diseases respiratory system	Musculoskeletal
3	Disease of other digestive system ICD: 530-579	Signs, symptoms ill defined ICD: 780-799	Signs, symptoms ill defined conditions	Disease other digestive system
4	Hypertension ICD: 402-405	Mental disorders ICD: 290-319	Disease other digestive system	Diseases upper respiratory ICD: 460-478
5	Endocrine, metabolic, nutritional ICD: 240-279	Rheumatic fever, other circulatory disease ICD: 390-398, 440-459	Diseases nervous system ICD: 320-359	Signs, Symptoms ill defined conditions
6	Signs, symptoms ill defined conditions	Cerebrovascular disease ICD: 430-438	Hypertension	Disease of pulmonary circ. & other heart ICD: 415-429
7	Disease of pulmonary circ. & other heart	Ischemic heart disease ICD: 410-414	Disease pulmonary circ. & other heart disease	Fractures ICD: 800-829
8	Rheumatic fever other circ.	Disease other digestive system	Endocrine, metabolic nutritional	Cerebrovascular disease
9	Disease nervous system	Diseases nervous system	Ischemic heart disease	Rheumatic fever, other circulatory
10	Mental disorders	Diseases urinary system ICD: 580-599	Other injuries, early compl. trauma ICD: 910-929, 958-959	Dislocations, sprains, strains, ICD: 830-848

TABLE A2: List of Indicators and Associated ICD9-CM Codes

Group	Indicator:	ICD9 CM Code
Ambulatory Sensitive Hospitalizations*@:		
	Congenital syphilis	090
	Immunization-related/preventable	033,037,045,320.0, 390,391.
	Grand mal/epileptic convulsions	345,780.3.
	Severe ENT infections	382,462,463,465,472.1
	Pulmonary tuberculosis	011
	Other tuberculosis	012-018
	COPD	491,492,494,496.
	Bacterial pneumonia	481,482.2,482.3,482.9 483,485,486.
	Asthma	493
	Congestive heart failure	428,402.01,402.11, 402.91,518.4
	Hypertension	401.0,401.9,402.00, 402.10,402.90
	Angina	411.1,411.8,413
	Cellulitis	681,682,683,686
	Diabetes	250.1,250.2,250.3
	Hypoglycaemia	251.2
	Gastroenteritis	558.9
	Kidney/urinary infection	590,599.0,599.9
	Rehydration/volume depletion	276.5
	Iron deficiency anemia	280.1,280.8,280.9
	Nutritional deficiencies	260,261,262,268.0,268.1
	Failure to thrive	783.4
	Pelvic inflammatory disease	614
	Dental conditions	521,522,523,525,528
Avoidable Hospitalizations*@:		
	Ruptured appendix	540.0, 540.1
	Asthma	493

Cellulitis	681,682
Congestive heart failure	428, 402.01, 402.11,402.91
Diabetes	250.1,250.2,250.3,251.0
Gangrene	785.4
Hypokalemia	276.8
Immunizable conditions	032,033,037,072,045,055
Malignant hypertension	401.0,402.0,403.0,404.0 405.0,437.2
Pneumonia	481,482,483,485,486
Pyelonephritis	590.0,590.1,590.8
Perforated or bleeding ulcer	531.0,531.2,531.4,531.6, 532.0,532.2,532.4,532.6,533.0 533.1,533.2,533.4,533.5,633.6

Conditions Amenable To Medical Treatment*#@:

Enteritis & other diarrhoeal diseases	001-009
Syphilis	090-097
Tuberculosis	010-018,137
Other infectious & parasitic diseases	004,320-322, 381-383,391, 680-686,711,730
Cervical cancer	180
Hodgkin's disease	201
Goitre, thyrotoxicosis	240-242
Diabetes	250
Avitaminosis, nutritional deficits	260-269
Epilepsy	345
Active rheumatic fever	390,392-398
Hypertensive disease	401-405
Acute respiratory infections	460-466
Influenza	487
Pneumonia	480-486

Chronic bronchitis & emphysema	490-492,496
Asthma	493
Peptic ulcer	531-534
Gallbladder disease	574-576
Appendicitis +	540-543
Intestinal obstruction & hernia	550-553,560
Complications of pregnancy +	630-676
Perinatal mortality	760-779

Disability Among Youth @:

Epilepsy	345
Hydrocephalus	742
Spina bifida	741
Developmental delay	315
Hearing loss	389
Cystic fibrosis	277,748
Emotional problems	307,312,313,314
Cerebral palsy	343
Blindness	369

Infectious Disease Indicators #@:

Pneumonia	481,482.3,482.9,485-486
Influenza	487.0-487.8
Hepatitis	70.2,70.3,40.0,70.1,70.4-70.6,70.9
Tuberculosis	10.0-18.9
Sexually transmitted diseases	90.0-99.9,54.1
Pelvic inflammatory disease	614-616
AIDS	42.0-44.9

Injury Indicators #@:

Motor vehicle	E810-E819
Falls	E880-E888
Vehicular non-traffic	E820-E829
Drowning	E910-E915
Poisoning	E850-E869
Fire & flames	E890-E899
Suicide/attempted suicide	E950-E959
Homicide/homicide related	E960-E969

Cancer Indicators #:

Lung @	162
Non-melanoma skin @	173
Bladder @	188
Colon @	153-154
Breast @	174.0-179.7
Kidney @	189.0
All cancers	140-239

Chronic Disease Indicators #@:

Ischemic heart disease	410-414
Diabetes	250
Asthma	493
Hypertension	401-405
Vascular complications	430-437
Emphysema	492-496

* Some age and other restrictions apply

\+ Excluded from hospitalization indicator

\# Mortality and morbidity

@ included in the 102 Health Status Indicators

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