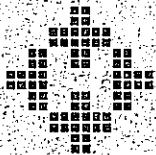


Population Health Information System
1991/92

Utilization of Physician Resources Volume II: Methods and Tables

March 1994



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

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The order of authorship accurately reflects the long hours devoted to the project by the senior author. However, the second author undertook the initial drafting of the report and accepts responsibility for the emphases given. The results and conclusions are those of the authors and no official endorsement by Manitoba is intended or should be inferred.

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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 Centre was created by a three year grant from the Health Services Development Fund. The MCHPE is active in health services research, evaluation and policy analysis, utilizing 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 known. They collaborate with a number of highly respected scientists from Canada, the United States and Europe.

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UTILIZATION OF PHYSICIAN RESOURCES

VOLUME II: METHODS AND TABLES

Introduction

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 Manitoba Health with research-based analyses, evaluation and policy options. The researchers agreed to undertake several specific projects each year as well as to develop a health information system for the province.

The Population Health Information System is designed to focus on the link between health care utilization and health, to make it possible to examine how effectively and efficiently a health care system produces (or fails to produce) health across various regions of the province. We have attempted to develop an information system that supports rational decision-making and that ultimately shifts discussions from a focus on the demand for health care to a 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, an approach that is distinct from examining patterns of care delivered by specific providers or facilities.

The physician module is one of several different modules being created as part of the Population Health Information System, each of which is at a different stage of development:

Population Health: Health Status Indicators - Released January 1994

Socioeconomic Status and Health - Released January 1994

Utilization of Personal Care Home Resources - Released October 1993

Utilization of Hospital Resources - Released January 1994

Utilization of Physician Resources - Current document

Separate reports are produced for each of the modules. Most reports are presented in two volumes: Volume I presents key findings and Volume II contains a more detailed set of tables. The first reports of the Population Health Information System will have limited distribution, primarily to obtain comment and feedback. Subsequent versions of the system will include several years of data to permit analysis over time and will be distributed to a wider audience.

Methods

Analytic Approach

Unlike analyses that focus on physician practice patterns, the major focus of this module of the Population Health Information System is on describing the pattern of ambulatory care received by the population of a defined area, whether the care is received in or out of the region of residence. For example, care received in Brandon by a resident of Parklands will be counted in Parklands residents' utilization rates. Although the presented analyses raise many questions regarding regional differences in utilization, we make little attempt in this report to answer them: we simply seek to accurately describe what is.

Since data are presented without information about tests of significance or confidence intervals, caution must be used in interpreting results¹. However, parallel analyses conducted on the 1990/91 data produce similar patterns, lending credibility to the findings.

The report analyzes physician claims submitted to Manitoba Health for the fiscal year 1991/92 by physicians (both in and out of province) who provided physician services to Manitoba residents. Data analyzed by the MCHPE are comparable to that compiled annually by Manitoba Health in the Manitoba Health Annual reports. Our numbers differ slightly due to different definitions of Manitoba residency² and because our analyses are based on date of service, not date of payment. In addition, analyses were limited to physician services delivered to ambulatory patients, thus excluding contacts for hospitalized individuals. As in Manitoba Health reports, some physician services (e.g., dental work) are excluded. This report is based on 6,296,986 physician claims generated by ambulatory physician contacts by a population of 1,140,406 Manitoba residents.

¹ From a statistical perspective, because the findings are based on the analyses of information from all people in the population (instead of a sample, which represents information from only part of the population), they are not subject to sampling variability (Satin and Shasty, 1986). It has been suggested that caution must be taken when generalizing to another time period, since any event is subject to random variation, particularly when the probability of the event is small and the population subject to that event is also small (National Center for Health Statistics, 1993). Neither of these cautions applies here and analyses of subsequent years data supports the findings reported here.

² See section "Manitoba Population".

Residents of Manitoba were identified and information about their current region of residence was obtained from the Manitoba Health registry file as of December 31, 1991, except in the case of Status Indians³. Residence information on the registry file may not be reliable for Status Indians because Manitoba Health assigns the region of residence as the First Nation of Origin, usually a municipality denoted as an Indian Reserve. For these residents, postal code information taken from the individual's first physician claim contact was used to assign region of residence.

The numerator for rates was calculated by counting or summarizing events (i.e., physician visits) over the 1991-92 fiscal year for individuals identified as residents of a specified region. Denominators were based on counts of individuals resident in specified regions as per registry information on December 31, 1991. Rates for the number of persons using physician services, the numbers of visits, and for expenditures were developed by dividing numerator information by population denominators. The average visit rate was calculated by dividing the total number of physician visits for residents of a given region for the fiscal year by the total number of people using physician services during the same period.

In addition to crude rates, age- and sex-adjusted rates of indicators were developed to permit comparisons across regions. The age and sex structure of the population, together with differing needs for care, are factors recognized as contributing to different regional requirements for physician services, and accordingly are factors that ultimately influence patterns of care delivered. Eleven categories were used for age-standardization: 0-14, 15-24, 25-34, ...65-74, 75-79, 80-84, 85-89, and 90 and older. Unless otherwise specified, rates presented in Volumes I and II of this report have been age- and sex- adjusted using Manitoba population proportions and a direct method of standardization. These mathematically adjusted rates provide an indication of the use of care in one region relative to use in another, after the effects of differing population structures have been removed.

³ The designation "Status Indians", also referred to as "Treaty Indians", refers to a specific group of the aboriginal population that has certain rights and privileges under the Indian Act of Canada. Not all Status Indians may have chosen to register their status with the Manitoba Health registry.

Conceptual Issues

Manitoba Population

Almost all residents of Manitoba are covered by the Manitoba Health Services Insurance Plan⁴. New Manitobans arriving from another province are eligible for coverage after a waiting period of up to three months, while new Manitobans arriving from another country are eligible for coverage immediately if they have landed immigrant status. Foreign citizens holding a one-year or more work permit are also covered by Manitoba Health. Manitoba residents not covered include armed forces and RCMP personnel and federal penitentiary inmates. Population counts are based on the Manitoba Health registry as of December 31 of the fiscal year being processed⁵.

Time Period Covered

Tables in this report are based on medical services received during the fiscal year beginning April 1, 1991, through to March 31, 1992.

Total Dollar Value of Services Summarized

Our analyses indicate that Manitoba Health paid \$124.5 million in fee for service ambulatory care, and another \$3.8 million in services was documented through evaluation claims (largely filed by rural salaried physicians). We know we are missing the equivalent of \$2.9 million in ambulatory contacts with salaried emergency room outpatient department physicians at Winnipeg non-teaching hospitals (Manitoba Health, personal communication, November, 1993). Ambulatory physician care delivered through many federally and provincially funded institutions, such as the Manitoba Cancer Treatment Foundation is not documented in the Manitoba Health administrative claims system. We estimate however, that between 90 and 98% of all ambulatory care is documented through the claims system and reported on in this module. As well, most of the ambulatory care not captured in the system is delivered by Winnipeg physicians so any biases will be towards under-representing physician contacts by Winnipeg residents.

⁴ Manitoba residents are covered for medical services received while temporarily out of the province, e.g., during vacations or business trips. Fees paid for such services are based on the standard fee schedule, in Canadian funds. Expenditures for out of province claims are attributed to the home region of the patient.

⁵ The minor differences in population figures reported in this module and the Manitoba Health Annual Report (1991-92) are due partly to different definitions of what constitutes a resident of Manitoba, ours being the 'potential patient population' that existed during the time period indicated.

Region of Residence

Analyses are oriented to describing differing patterns of physician utilization by residents of the eight regions defined by Manitoba Health: Central, Eastman, Interlake, Norman, Parklands, Thompson, Westman, and Winnipeg (See Figure 1). While we recognize the diverse nature of Winnipeg residents (for example, in terms of ethnicity and socioeconomic status), we are for the present purposes of comparison to other Manitoba regions, analyzing it as a single region. For ease of reference, the non-Winnipeg regions are sometimes referred to in aggregate as a rural region in comparisons with Winnipeg.

Calculation of Age

Age was calculated as of December 31 of the fiscal year being analyzed, according to the birth year reported on the first claim of the fiscal year for an individual. Because the physician claims dataset produced by Manitoba Health does not include the century of birth, approximately 350 individuals (Manitoba Health Population report, 1992) who were 99 years of age or older were misclassified as being 100 years less than their actual age. This results in a very slight over-estimation of access by children and a slight under-estimation of access by the elderly.

Definition of Ambulatory Visits

An ambulatory physician visit is defined as any contact with a physician⁶ which occurs while the patient is not a hospital in-patient. Physician visits to residents of personal care homes are counted as ambulatory visits, as are physician services received in hospital emergency rooms⁷ and out-patient departments. Unless otherwise specified, ambulatory visits include consultative and non-consultative care.

Ambulatory care delivered as part of a global tariff, such as for the six-week post-operative care period, examinations associated with other procedures (e.g., 2564 - injections of chemotherapeutic agents), and for prenatal and post-partum care visits claimed at the time of delivery (4801, 4821, 4823) are not included in this report. We estimate that global billing

⁶ All claims for oral surgery, dental, and periodontal contacts have been excluded from analyses. Services provided by chiropractors and optometrists are also excluded.

⁷ Emergency room visits are under-counted, particularly in Winnipeg, because all hospitals in Winnipeg except the Health Sciences Centre and St. Boniface hospital employ salaried emergency room physicians. Only four hospitals in rural Manitoba employ salaried emergency room physicians.

for prenatal care constitutes just over 2% of all ambulatory visits, 35% of all visits to obstetrics and gynaecology specialists, and affects estimates of Winnipeg and non-Winnipeg utilization equally.

Prenatal care has been the focus of a separate Centre report and access was found to be good even among Winnipeg women of lower socioeconomic status, particularly when compared to access rates elsewhere in North America (Mustard, 1993). On average, Winnipeg women were found to make an average of 10.5 visits and 87% of the physicians billed for their visits under a global fee. We have inadvertently included the prenatal visits of those patients whose physician billed fee for service. Such visits constitute less than 1% of all ambulatory visits and on a per capita basis, are used slightly more often in non-Winnipeg regions. Subsequent versions of this report will exclude all prenatal visits or report them all in a separate section.

Special call claims⁸ are always filed in addition to the regular ambulatory visit claim, and hence are not counted as an additional visit, but are included in the total cost of the visit. Ambulatory visits are different from physician services, in that a single ambulatory visit may generate other services such as for lab and X-ray work. These additional services however, are not counted as ambulatory visits, nor are they included in the visit cost.

Types of Rates Calculated

Number of Persons Making Contact with a Physician indicates the number of residents who had at least one ambulatory contact with a physician during the fiscal year analyzed (i.e., an individual who has had one or more physician visits is counted once, regardless of the number of visits). This measure provides a useful indicator of the ability of people in one region or another to access ambulatory physician services. For ease of reference, people making one or more ambulatory contacts are sometimes referred to in this report as "users".

Visits Per Patient is the average number of ambulatory visits made by people who made at least one visit throughout the year. This indicator is used to group people into the three levels of visit intensity.

⁸ Special call claims are generated when the physician is required to make a special trip, over and above the physician's regular routine, to attend to a patient, such as to the patient's residence or to an emergency or outpatient department of a hospital.

Number of Visits Per 100 Residents serves as a measure of total ambulatory utilization for a given region regardless of where such use took place. It is defined as the total number⁹ of visits made by residents of a region, divided by the total number of people in that region, multiplied by 100.

Expenditures Per Visit is the average fee paid by Manitoba Health for the ambulatory services rendered to residents of a given region. It represents only the physician fee for the visit, and does not include fees paid for any ancillary services associated with the visit, such as for laboratory or technical (e.g., X-ray) services. The expenditure per visit is influenced by the type of visit (e.g., primary care vs consultative care), place of visit¹⁰, as well as differences in the residents' use of medical and surgical specialists. For example, in 1990, a complete history and examination by a general practitioner (tariff 8540) cost the province \$31.15, while a history and physical exam done by an internist cost \$47.80; and a consultation (tariff 8550) by an internist, \$81.75.

Expenditures per Resident is the average amount spent for ambulatory physician visits by Manitoba Health for residents of a given region. It is influenced by the number of visits per resident and the expenditures per visit.

The Concept of Access

Regular contact with a physician ensures that a patient takes the first step towards obtaining any potential benefits from preventative, diagnostic and treatment services that the physician has to offer. Access is operationally defined as the proportion of people who make at least one ambulatory physician visit throughout the year.

⁹ Each claim submitted to Manitoba Health contains a value indicating the number of services which the claim represents. These values were used to calculate the total number of ambulatory visits, with the exception of the following claim tariffs: Tariffs 8571, 8580, 8581, 8583, 8584, and 8589 represent the number of 15 minute units spent with the patient, either for psychotherapy, or for pain therapy in a pain clinic. For these claims, the number of services was set to one per claim. Tariffs 8565, 8573, and 8574 are for detention with the critically ill, including cardiovascular resuscitation. These claims are for additional services beyond the initial half hour, and thus represent claims for a services already counted. The number of services was set to zero for these tariffs. Claims generated by newborn infants are not included in the visit count.

¹⁰ All costs reported include the additional fee premium paid by Manitoba Health, based on the primary residence of the claiming physician. The premium is 2.5% for Brandon physicians, 5% for rural physicians, and 10% for Northern (north of the 53 parallel) physicians.

Indicators of Need for Health Care

While age- and sex-adjustment removes the effects of population structure, it does not entirely adjust for need for health care. Adjusted rates of physician utilization must therefore be considered in the light of relative 'need' for medical care across regions. Two indicators of need are presented in this report. The first is the mortality rate for ages 0 to 64 years, adjusted to the provincial population and indexed to the provincial rate, and referred to in this report as the 0-64 Year Standardized Mortality Ratio (SMR). This is seen by many as the best single indicator of health status reflecting the need for health care (Birch and Eyles, 1991; Carstairs and Morris, 1989; . It has been proposed for use in Ontario as an index of need for regional based health services (Eyles et al, 1993). It builds on the British tradition of using mortality rates for regional funding and allocation formulae. While using death rates to determine need for hospital care seems counter-intuitive, the 0-64 mortality ratio is strongly associated with indicators of morbidity and socioeconomic status. Furthermore a large proportion of hospital and physician care is used in the period just prior to death.

The second indicator is the Socioeconomic Risk index developed by the Socioeconomic Status and Health module of the Population Health Information System (Frohlich and Mustard, 1993). Socioeconomic status has been shown in Canada and elsewhere to be strongly related to poor health and to higher rates of use of hospital care (Carstairs and Morris, 1991, MacMahon et al, 1992). The socioeconomic risk index is comprised of six indicators derived from census data¹¹.

Characteristics of Use, Users, and Providers

Rates of access to physicians, visits per 100 residents, and expenditures per resident were examined in several ways to enhance the description of the way physician resources were used across regions. A description of these concepts and categories is outlined below.

¹¹ The six indicators are: 1) percentage of the population between the ages of 25 and 34 having graduated from high school; 2) percentage of the labour force between 15 and 24 years of age that is unemployed; 3) percentage of the labour force between 45 and 54 years of age that is unemployed; 4) percentage of single parent female households; 5) percentage of female labour force participation; and 6) average dwelling value.

Physician Supply

The supply of physicians for each region is the number of physicians who grossed \$40,000¹² or more in 1991-92. Earnings were based on submitted claims and include some salaried and all fee-for-service physicians¹³. Supply estimates do not include technical specialists, such as radiologists and anaesthetists, since these physicians are not involved in the primary management of patient care. It also does not include residents and interns practising in the Winnipeg teaching hospitals, who submit claims under their supervisor's billing number.

Physician Specialties

Physicians are classified by seven main groupings: general practice¹⁴, psychiatry, paediatrics, obstetrics and gynaecology, medical specialists, general surgeons and surgical specialists. Ambulatory visits to technical specialists, including anaesthesiology, radiology, and pathology have been included in the medical specialty category, but the number of such visits is extremely small.

Types of Care

- *Consultative care* includes ambulatory visits in which the patient is referred by one physician seeking the opinion of another physician because of the "complexity, obscurity, or seriousness" of a patient's illness, or because a second opinion is requested either by the patient or another person acting on the patient's behalf. After the consultation, the patient is usually returned to the care of the referring physician. Consultation visits are usually provided by specialist physicians, but may occasionally be provided by general practitioners.

¹² The \$40,000 threshold was chosen for two reasons; 1) total Manitoba supply estimates could be verified against figures published by Manitoba Health, and 2) it is a calculationally simple algorithm which allows for an easy assessment of relative differences in regional physician supply.

¹³ Our figures differ from Table 12a of the 1991-92 Manitoba Health Annual report for three reasons: Manitoba Health; 1) includes salaried physicians who gross over \$40,000 if the physician submits at least one dollar in fee-for-service claims; 2) only counts physicians who were still registered on March 31 of the fiscal year; and 3) bases their reports on payment date, not service date.

¹⁴ While the Manitoba College of Physicians and Surgeons recognize Family Practice as a certifiable specialty, the physician claims data does not yet code this distinction. Thus for ease of reference, the term general practitioners will be used throughout this report to refer to both general and family practitioners.

Non-consultative care refers to all other ambulatory visits. It includes complete or regional histories and examinations and subsequent visits in which the progress of the patient's condition is monitored. It is provided by both general practitioners and specialist physicians.

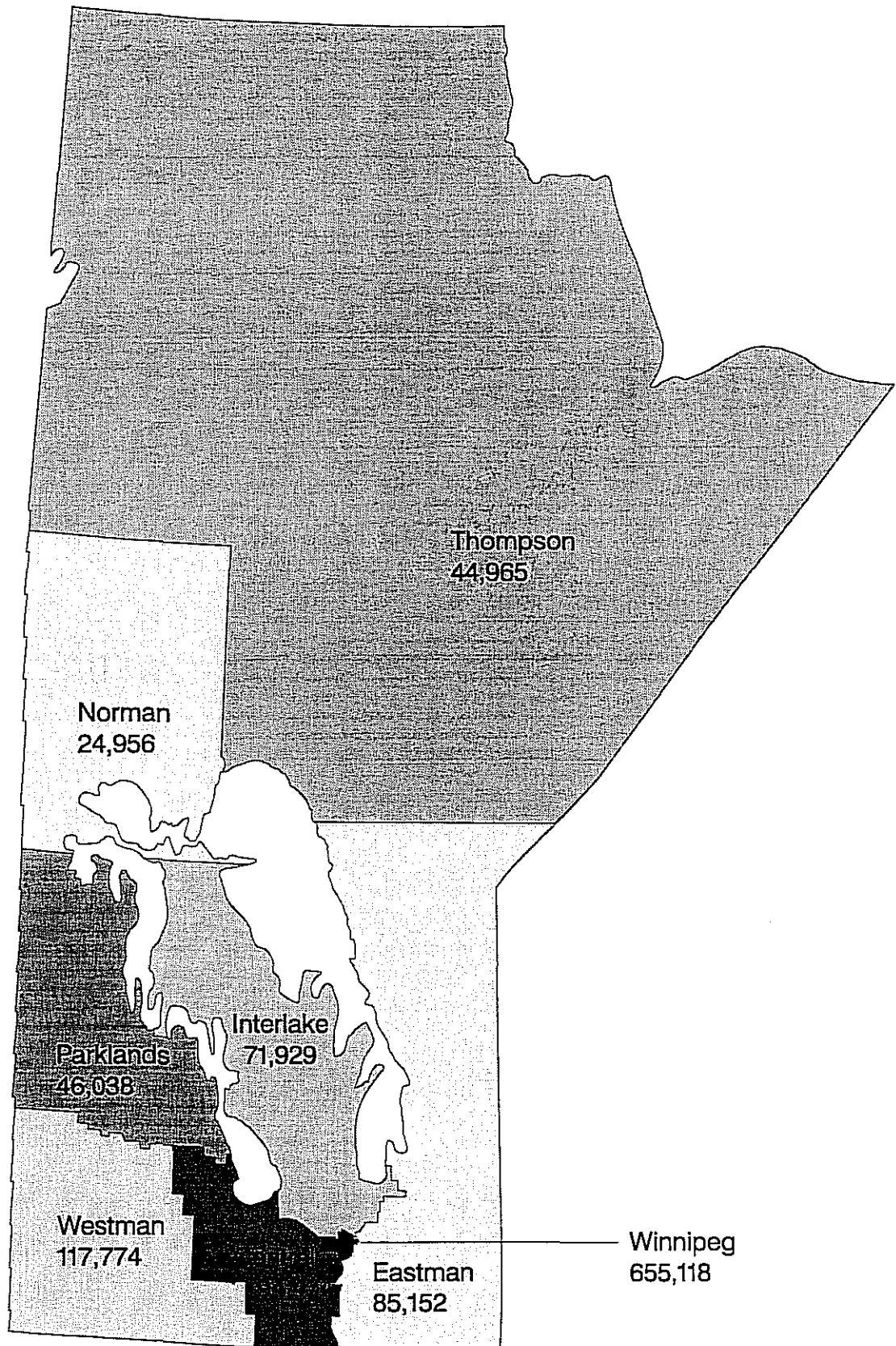
Visit Intensity Groups

While just under 84% of Manitobans make at least one visit to a physician during the year, some patients make much more frequent contact than others. Patients are classified into three visit-intensity groups, as a function of how many ambulatory visits were made throughout the year: 1 to 7, 8 to 14, or 15 or more.

Location of Care

Residents of given regions often receive ambulatory care from physicians outside of their home region. Utilization rates are presented for visits in the resident's home region (In Region), in another region other than Winnipeg (Out Of Region: Not Winnipeg), and in Winnipeg (Out of Region: Winnipeg). In some cases, physicians based in Winnipeg may travel to rural and remote regions to conduct clinics over a short period of time. Since we defined location of care based on physician's location, we have classified such care as occurring in Winnipeg. Since there is presently no explicit coding of this type of physician activity we are not presenting separate analyses at this time. However, algorithms which do so are being tested for future reports of the Physician Use Module.

Figure 1. Manitoba Health Regions and Populations
December, 1991



**Table 1. Manitoba Health Regions
and Populations: Percent Distribution: December, 1991**

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Total		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
0-14	Males	13.0	13.0	11.2	13.1	11.1	17.5	11.1	10.3	12.5	11.2
	Females	12.2	12.6	10.5	13.0	10.4	16.9	10.6	9.7	11.9	10.7
15-24	Males	7.7	8.0	7.8	8.8	7.5	10.2	7.0	7.2	7.9	7.5
	Females	7.2	7.2	6.9	8.6	6.5	9.6	6.7	7.2	7.3	7.2
25-34	Males	7.5	8.1	7.4	9.4	6.3	9.1	7.2	9.3	7.7	8.6
	Females	7.4	7.7	7.3	8.7	6.1	8.7	7.4	9.2	7.5	8.5
35-44	Males	6.9	7.6	7.8	7.9	6.6	6.5	7.0	7.8	7.1	7.5
	Females	6.5	7.3	7.4	7.1	6.2	6.1	6.8	8.0	6.8	7.5
45-54	Males	4.7	5.3	5.7	4.9	5.2	4.7	4.7	5.1	5.0	5.1
	Females	4.7	4.8	5.4	4.4	5.0	3.7	4.9	5.2	4.8	5.0
55-64	Males	3.9	4.1	4.8	3.4	5.0	2.3	4.5	4.0	4.1	4.0
	Females	4.0	3.8	4.6	3.0	4.9	1.8	4.7	4.3	4.1	4.2
65-74	Males	3.6	3.1	3.7	2.2	5.0	1.0	4.3	3.2	3.5	3.3
	Females	4.2	3.2	4.0	2.3	5.3	0.9	4.9	4.2	3.9	4.1
75-79	Males	1.3	1.0	1.4	0.7	1.9	0.3	1.6	1.0	1.3	1.1
	Females	1.7	1.2	1.5	0.9	2.1	0.2	2.0	1.6	1.5	1.6
80-84	Males	0.8	0.6	0.7	0.4	1.1	0.2	1.1	0.6	0.8	0.7
	Females	1.1	0.7	0.8	0.6	1.5	0.2	1.5	1.1	1.0	1.1
85-89	Males	0.4	0.3	0.3	0.2	0.6	0.1	0.5	0.3	0.4	0.3
	Females	0.7	0.4	0.5	0.3	0.9	0.1	0.9	0.6	0.6	0.6
90+	Males	0.2	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.2	0.1
	Females	0.4	0.2	0.3	0.1	0.5	0.0	0.6	0.3	0.4	0.4

Table 2
Regional Physician Supply
1991/1992

	Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
General Practitioners										
Number	52	41	39	24	38	23	92	443	309	752
Number/1000 residents	0.55	0.48	0.54	0.96	0.83	0.51	0.78	0.68	0.64	0.66
Paediatricians										
Number	1	1	1	0	0	0	4	66	7	73
Number/1000 residents	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.10	0.01	0.06
Obstet & Gyn										
Number	0	0	0	0	0	0	5	52	5	57
Number/1000 residents	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.01	0.05
Medical Specialists¹										
Number	0	0	1	0	0	0	12	148	13	161
Number/1000 residents	0.00	0.00	0.01	0.00	0.00	0.00	0.10	0.23	0.03	0.14
Psychiatrists										
Number	0	0	1	0	0	0	3	84	4	88
Number/1000 residents	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.13	0.01	0.08
General Surgeons										
Number	3	1	1	0	2	0	6	54	13	67
Number/1000 residents	0.03	0.01	0.01	0.00	0.04	0.00	0.05	0.08	0.03	0.06
Surgical Specialists²										
Number	0	0	0	0	0	0	7	111	7	118
Number/1000 residents	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.17	0.01	0.10
Total										
Number	56.00	43.00	43.00	24.00	40.00	23.00	129.00	958.00	358	1,316
Number/1000 residents	0.59	0.51	0.60	0.96	0.87	0.51	1.10	1.46	0.74	1.15

¹Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

²Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 3
Regional Utilization of Physician Resources:
Total Ambulatory Care¹: Crude Estimates
1991/1992

	Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Percent making contact ²	81.45	80.99	83.80	80.13	81.74	75.80	83.12	85.03	81.56	83.55
Visits per 1000 residents	4,189	4,356	4,893	4,933	4,637	4,084	4,887	5,286	4,563	4,978
Dollars per 1000 residents	87,893	96,099	107,130	102,031	97,428	87,325	104,597	123,308	97,817	112,461
Visits per patient	5.14	5.38	5.84	6.16	5.67	5.39	5.88	6.22	5.60	5.96
Dollars per visit	20.98	22.06	21.89	20.68	21.01	21.38	21.40	23.33	21.44	22.59

¹Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

²Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

Table 4
Regional Utilization¹ of Physician Resources
Utilization by Type of Visit
1991/1992

	Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
All Ambulatory Visits ²										
Number of residents	94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent making contact ³	81.06	81.29	83.83	80.96	80.94	77.67	82.35	85.22	81.44	83.55
Visits per 1000 residents	4,140	4,473	4,881	5,191	4,449	4,677	4,675	5,290	4,565	4,978
Dollars per 1000 residents	86,973	98,813	106,821	108,006	93,364	105,019	100,072	123,030	97,919	112,461
Visits per patient	5.11	5.50	5.82	6.41	5.50	6.02	5.68	6.21	5.60	5.96
Dollars per visit	21.01	22.09	21.89	20.80	20.98	22.46	21.41	23.26	21.45	22.59
Consultative Visits ⁴										
Percent making contact ³	11.84	15.31	16.17	13.41	11.36	16.14	13.33	19.08	13.86	16.87
Visits per 1000 residents	148	197	211	176	142	214	165	256	176	222
Dollars per 1000 residents	8,518	11,311	11,979	9,477	8,194	11,855	9,976	14,911	10,153	12,908
Visits per patient	1.25	1.29	1.31	1.31	1.25	1.33	1.24	1.34	1.27	1.32
Dollars per visit	57.67	57.30	56.76	53.86	57.85	55.37	60.31	58.23	57.62	58.05
Non-Consultative Visits ⁴										
Percent making contact ³	80.86	81.08	83.59	80.69	80.80	77.26	82.16	84.98	81.22	83.33
Visits per 1000 residents	3,992	4,276	4,670	5,015	4,308	4,463	4,509	5,034	4,388	4,756
Dollars per 1000 residents	78,455	87,501	94,843	98,528	85,170	93,164	90,096	108,119	87,766	99,553
Visits per patient	4.94	5.27	5.59	6.22	5.33	5.78	5.49	5.92	5.40	5.71
Dollars per visit	19.65	20.46	20.31	19.65	19.77	20.88	19.98	21.48	20.00	20.93

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

⁴As defined by Manitoba Health manual, 1990 (also see method section).

Table 5
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Sex and Age of Residents
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
Number of residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Males	0-14	12,232	11,042	8,080	3,279	5,095	7,887	13,023	67,138	60,638	127,776
	15-64	28,996	28,092	24,058	8,591	14,097	14,709	35,916	218,173	154,459	372,632
	65-74	3,382	2,644	2,689	544	2,322	428	5,016	20,628	17,025	37,653
	75+	2,591	1,726	1,794	349	1,777	244	3,975	12,756	12,456	25,212
Females	0-14	11,546	10,718	7,545	3,242	4,774	7,592	12,458	63,760	57,875	121,635
	15-64	28,164	26,147	22,647	7,920	13,207	13,458	35,798	221,449	147,341	368,790
	65-74	3,930	2,683	2,871	569	2,430	394	5,798	27,476	18,675	46,151
	75+	3,633	2,100	2,245	462	2,336	253	5,790	23,738	16,819	40,557
Percent making contact ³											
Males	0-14	83.69	82.16	87.88	80.15	82.77	73.49	85.64	90.74	82.79	86.97
	15-64	70.39	71.67	72.76	71.74	70.03	69.50	70.81	75.06	71.00	73.39
	65-74	86.87	85.97	88.03	87.32	86.95	80.14	88.74	90.41	87.32	89.01
	75+	94.18	91.42	94.33	88.14	93.09	86.49	96.58	95.05	94.07	94.58
Females	0-14	84.18	82.48	88.83	81.83	84.44	75.65	87.35	91.65	83.92	87.97
	15-64	85.65	86.50	88.66	86.77	86.32	85.18	87.05	88.35	86.62	87.66
	65-74	90.05	90.61	92.13	91.56	90.16	84.77	91.50	91.12	90.85	91.01
	75+	95.87	94.84	93.88	90.23	92.45	87.70	95.17	95.72	94.49	95.20
Total		81.06	81.29	83.83	80.96	80.94	77.67	82.35	85.22	81.44	83.55
Visits per 1000 residents											
Males	0-14	4,031	3,779	4,550	4,020	3,805	3,308	4,390	4,979	4,018	4,523
	15-64	2,789	3,135	3,220	3,913	2,964	3,315	3,030	3,773	3,102	3,498
	65-74	5,838	6,391	7,125	6,950	6,034	6,313	6,778	7,322	6,478	6,941
	75+	7,241	7,944	8,602	7,991	7,868	7,202	8,937	9,264	8,183	8,729
Females	0-14	3,996	3,751	4,467	3,969	3,818	3,335	4,381	4,870	3,992	4,453
	15-64	4,610	5,125	5,510	6,370	5,397	5,929	5,213	5,882	5,260	5,634
	65-74	5,975	7,088	7,649	7,285	6,608	6,827	7,105	7,443	6,883	7,217
	75+	7,461	8,281	9,163	7,823	7,357	8,600	9,299	9,274	8,448	8,927
Total		4,140	4,473	4,881	5,191	4,449	4,677	4,675	5,290	4,565	4,978

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

Table 5 (continued)
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Sex and Age of Residents
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
Dollars per 1000 residents											
Males	0-14	83,613	81,473	96,879	82,701	80,975	69,030	92,662	108,000	84,767	96,974
	15-64	59,828	70,005	72,867	81,243	62,964	71,546	66,056	89,775	67,669	80,686
	65-74	124,201	141,329	156,900	149,495	127,247	155,493	145,182	164,963	140,218	153,774
	75+	154,705	182,483	181,617	191,172	168,341	219,869	192,865	207,373	178,927	193,387
Females	0-14	80,542	78,559	93,904	79,468	80,357	68,776	90,238	103,982	82,385	93,706
	15-64	97,171	114,465	122,666	130,087	111,672	125,576	112,026	143,935	113,176	131,749
	65-74	124,212	153,330	162,049	155,062	135,981	164,552	150,694	167,766	145,756	158,860
	75+	154,495	183,014	188,944	174,650	157,664	261,723	199,582	200,689	181,072	192,583
Total		86,973	98,813	106,821	108,006	93,364	105,019	100,072	123,030	97,919	112,461
Visits per patient											
Males	0-14	4.82	4.60	5.18	5.02	4.60	4.50	5.13	5.49	4.85	5.20
	15-64	3.96	4.38	4.43	5.45	4.23	4.77	4.28	5.03	4.37	4.77
	65-74	6.72	7.43	8.09	7.96	6.94	7.88	7.64	8.10	7.42	7.80
	75+	7.69	8.69	9.12	9.07	8.45	8.33	9.25	9.75	8.70	9.23
Females	0-14	4.75	4.55	5.03	4.85	4.52	4.41	5.02	5.31	4.76	5.06
	15-64	5.38	5.93	6.22	7.34	6.25	6.96	5.99	6.66	6.07	6.43
	65-74	6.63	7.82	8.30	7.96	7.33	8.05	7.76	8.17	7.58	7.93
	75+	7.78	8.73	9.76	8.67	7.96	9.81	9.77	9.69	8.94	9.38
Total		5.11	5.50	5.82	6.41	5.50	6.02	5.68	6.21	5.60	5.96
Dollars per visit											
Males	0-14	20.74	21.56	21.29	20.57	21.28	20.87	21.11	21.69	21.10	21.44
	15-64	21.45	22.33	22.63	20.76	21.24	21.58	21.80	23.79	21.83	23.07
	65-74	21.27	22.11	22.02	21.51	21.09	24.63	21.42	22.53	21.64	22.16
	75+	21.36	22.97	21.11	23.92	21.40	30.53	21.58	22.38	21.85	22.14
Females	0-14	20.16	20.94	21.02	20.02	21.05	20.62	20.60	21.35	20.64	21.05
	15-64	21.08	22.33	22.26	20.42	20.69	21.18	21.49	24.47	21.52	23.37
	65-74	20.79	21.63	21.19	21.29	20.58	24.10	21.21	22.54	21.18	22.01
	75+	20.71	22.10	20.62	22.33	21.43	30.43	21.46	21.64	21.43	21.56
Total		21.01	22.09	21.88	20.80	20.98	22.45	21.41	23.26	21.45	22.59

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

Table 6
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Visit Intensity Group
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
Number of residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent making contact ³	1-7	64.51	62.45	62.55	57.56	62.19	57.35	62.14	61.68	61.99	61.79
	8-14	12.60	13.90	15.39	15.80	13.79	13.82	14.75	16.83	14.19	15.68
	15+	3.95	4.95	5.88	7.60	4.96	6.49	5.46	6.70	5.26	6.08
	Total	81.06	81.29	83.83	80.96	80.94	77.67	82.35	85.22	81.44	83.55
Visits per 1000 residents	1-7	2,030	1,991	2,056	1,910	2,002	1,815	2,021	2,090	1,996	2,048
	8-14	1,277	1,425	1,578	1,627	1,413	1,423	1,506	1,725	1,452	1,606
	15+	832	1,057	1,247	1,655	1,035	1,439	1,148	1,475	1,117	1,324
	Total	4,140	4,473	4,881	5,191	4,449	4,677	4,675	5,290	4,565	4,978
Dollars per 1000 residents	1-7	42,638	43,937	45,259	39,504	42,340	39,731	43,044	46,264	42,817	44,759
	8-14	26,673	30,960	34,007	33,234	29,327	31,408	31,851	37,887	30,754	34,807
	15+	17,654	23,913	27,548	35,257	21,691	33,873	25,171	38,878	24,341	32,891
	Total	86,965	98,810	106,814	107,995	93,359	105,012	100,066	123,029	97,912	112,457
Visits per patient	1-7	3.15	3.19	3.29	3.32	3.22	3.16	3.25	3.39	3.22	3.32
	8-14	10.14	10.26	10.25	10.30	10.24	10.30	10.21	10.25	10.23	10.24
	15+	21.05	21.37	21.22	21.78	20.87	22.16	21.01	22.00	21.25	21.76
	Total	5.11	5.50	5.82	6.41	5.50	6.02	5.68	6.21	5.60	5.96
Dollars per visit	1-7	21.00	22.07	22.01	20.69	21.15	21.89	21.30	22.14	21.45	21.85
	8-14	20.88	21.73	21.55	20.43	20.76	22.07	21.15	21.96	21.18	21.67
	15+	21.22	22.62	22.09	21.30	20.96	23.53	21.92	26.36	21.80	24.85
	Total	21.01	22.09	21.88	20.80	20.98	22.45	21.41	23.26	21.45	22.59

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

Table 7
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Location of Care³ Received
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Number of Residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent of residents making contact ⁴	Out of region: not Wpg	8.57	6.48	4.65	5.64	13.21	30.03	6.81	3.52	9.51	6.06
	In region of residence	66.25	56.05	59.52	75.90	74.55	54.71	78.86	84.47	66.60	76.84
	Out of region: Wpg	28.08	45.00	50.39	18.07	12.60	35.57	8.72	---	28.15	11.94
	Total	81.06	81.29	83.83	80.96	80.94	77.67	82.35	85.22	81.44	83.55
Visits per 1000 residents	Out of region: not Wpg	295	185	127	161	387	1,026	194	89	297	177
	In region of residence	2,954	2,609	2,833	4,604	3,749	2,445	4,275	5,201	3,319	4,401
	Out of region: Wpg	892	1,679	1,921	426	313	1,205	206	---	948	400
	Total	4,140	4,473	4,881	5,191	4,449	4,677	4,675	5,290	4,565	4,978
Dollars per 1000 residents	Out of region: not Wpg	6,404	3,968	2,601	3,360	9,405	20,742	3,993	1,998	6,319	3,830
	In region of residence	57,304	52,097	55,420	90,554	74,464	52,027	90,380	121,032	66,942	98,241
	Out of region: Wpg	23,266	42,748	48,801	14,092	9,494	32,250	5,698	---	24,658	10,390
	Total	86,973	98,813	106,821	108,006	93,364	105,019	100,072	123,030	97,919	112,461
Visits per patient	Out of region: not Wpg	3.44	2.86	2.73	2.85	2.93	3.42	2.84	2.54	3.13	2.93
	In region of residence	4.46	4.65	4.76	6.07	5.03	4.47	5.42	6.16	4.98	5.73
	Out of region: Wpg	3.18	3.73	3.81	2.36	2.48	3.39	2.36	---	3.37	3.35
	Total	5.11	5.50	5.82	6.41	5.50	6.02	5.68	6.21	5.60	5.96
Dollars per visit	Out of region: not Wpg	21.73	21.39	20.47	20.85	24.27	20.21	20.61	22.40	21.26	21.60
	In region of residence	19.40	19.97	19.56	19.67	19.86	21.28	21.14	23.27	20.17	22.32
	Out of region: Wpg	26.09	25.46	25.41	33.05	30.37	26.76	27.68	---	26.01	25.95
	Total	21.01	22.09	21.89	20.80	20.98	22.46	21.41	23.26	21.45	22.59

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Location of care refers to the site of care delivery in relation to patient region of residence.

⁴Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

Table 8
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Physician Specialty
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Number of residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent making contact ³	G. Practitioners	78.57	77.62	77.73	80.56	80.14	77.09	77.77	74.70	78.02	76.24
	Paediatricians	3.49	5.22	8.56	1.47	1.11	3.94	6.57	12.82	4.87	9.06
	Psychiatrists	0.47	0.86	1.07	0.20	0.26	0.30	0.70	2.46	0.64	1.71
	Obstet & Gyn	2.66	4.48	5.20	1.62	1.81	2.29	4.05	7.00	3.56	5.64
	M. Specialists ⁴	6.48	9.02	10.37	4.68	4.66	6.05	7.63	16.56	7.51	12.74
	Gen. Surgeons	5.69	4.35	4.85	1.20	4.58	1.70	6.04	5.20	4.81	5.04
	S. Specialists ⁵	8.97	10.89	12.90	5.95	5.60	9.10	9.93	16.50	9.69	13.59
	Total	81.03	81.35	83.83	81.32	80.86	79.12	82.29	85.22	81.44	83.55
Visits per 1000 residents	G. Practitioners	3,571	3,737	3,880	4,952	4,150	4,329	3,835	3,580	3,894	3,722
	Paediatricians	114	149	303	26	23	69	232	488	152	329
	Psychiatrists	25	50	60	12	10	7	33	206	33	136
	Obstet & Gyn	44	81	92	26	30	43	69	129	62	103
	M. Specialists ⁴	127	192	225	74	74	107	182	463	159	334
	Gen. Surgeons	107	73	97	19	71	23	146	108	98	104
	S. Specialists ⁵	153	193	225	91	88	131	175	316	165	251
	Total	4,139	4,475	4,881	5,200	4,447	4,708	4,672	5,290	4,564	4,978
Dollars per 1000 residents	G. Practitioners	68,130	73,403	74,803	97,538	81,309	90,750	74,179	66,331	75,635	70,430
	Paediatricians	2,721	3,554	6,775	1,063	823	2,015	5,582	10,755	3,682	7,405
	Psychiatrists	1,783	3,403	4,141	981	781	532	2,511	14,746	2,380	9,740
	Obstet & Gyn	1,390	2,510	2,799	938	963	1,322	2,027	3,803	1,900	3,049
	M. Specialists ⁴	5,423	7,763	8,727	3,974	3,997	5,665	7,493	15,410	6,695	11,715
	Gen. Surgeons	3,014	2,438	2,799	666	2,640	857	3,409	2,908	2,704	2,822
	S. Specialists ⁵	4,485	5,774	6,771	2,998	2,760	4,520	4,809	9,072	4,911	7,293
	Total	86,960	98,847	106,822	108,166	93,308	105,667	100,018	123,032	97,917	112,461

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

⁴Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

⁵Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 8 (continued)
Regional Utilization¹ of Physician Resources:
Total Ambulatory Care² by Physician Specialty

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Visits per patient	G. Practitioners	4.54	4.81	4.99	6.15	5.18	5.62	4.93	4.79	4.99	4.88
	Paediatricians	3.27	2.86	3.54	1.79	2.06	1.75	3.52	3.80	3.13	3.63
	Psychiatrists	5.27	5.77	5.61	5.88	3.95	2.21	4.68	8.37	5.16	7.93
	Obstet & Gyn	1.64	1.81	1.76	1.62	1.68	1.88	1.71	1.84	1.74	1.82
	M. Specialists ³	1.95	2.13	2.17	1.58	1.58	1.76	2.39	2.80	2.12	2.62
	Gen. Surgeons	1.87	1.68	2.00	1.54	1.55	1.36	2.42	2.08	2.03	2.06
	S. Specialists ⁴	1.70	1.77	1.74	1.52	1.57	1.44	1.76	1.91	1.71	1.85
	Total	5.11	5.50	5.82	6.39	5.50	5.95	5.68	6.21	5.60	5.96
Dollars per visit	G. Practitioners	19.08	19.64	19.28	19.70	19.59	20.96	19.34	18.53	19.42	18.92
	Paediatricians	23.80	23.83	22.38	40.54	35.86	29.20	24.10	22.05	24.16	22.51
	Psychiatrists	72.22	68.52	68.80	82.34	76.90	79.20	77.03	71.56	71.78	71.61
	Obstet & Gyn	31.89	30.91	30.55	35.66	31.70	30.81	29.31	29.46	30.63	29.74
	M. Specialists ³	42.84	40.42	38.74	53.63	54.25	53.17	41.09	33.29	42.00	35.08
	Gen. Surgeons	28.29	33.31	28.91	35.85	37.13	37.17	23.29	26.85	27.70	27.16
	S. Specialists ⁴	29.39	29.99	30.15	33.12	31.39	34.56	27.54	28.73	29.68	29.01
	Total	21.01	22.09	21.89	20.80	20.98	22.44	21.41	23.26	21.45	22.59

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²Consists of all consultative and non-consultative care in which the patient is considered ambulatory - non-inpatient physician contact.

³Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

⁴Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 9
Regional Utilization¹ of Physician Resources:
Consultative Ambulatory Care² by Physician Specialty
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non-Winnipeg	Province
Number of residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent making contact ³	G. Practitioners	0.606	1.215	1.380	5.953	1.648	6.100	1.117	1.088	1.786	1.377
	Paediatricians	0.345	0.361	0.387	0.642	0.455	0.373	0.851	0.325	0.495	0.403
	Psychiatrists	0.159	0.224	0.325	0.100	0.127	0.173	0.298	0.680	0.226	0.494
	Obstet & Gyn	1.295	1.971	2.140	1.104	0.989	1.288	1.987	2.485	1.679	2.164
	M. Specialists ⁴	4.044	5.468	5.736	3.586	3.593	4.691	5.217	7.699	4.817	6.477
	Gen. Surgeons	2.903	3.073	2.658	0.892	3.418	1.004	2.117	2.749	2.508	2.641
	S. Specialists ⁵	4.122	5.529	6.418	3.391	2.769	5.107	3.696	7.676	4.506	6.323
	Total	11.836	15.305	16.170	13.409	11.358	16.141	13.334	19.081	13.857	16.871
Visits per 1000 residents	G. Practitioners	6	12	14	66	17	68	12	11	19	14
	Paediatricians	4	4	4	8	5	4	9	3	5	4
	Psychiatrists	2	2	4	1	1	2	3	8	2	6
	Obstet & Gyn	14	22	24	12	11	14	21	28	19	24
	M. Specialists ⁴	46	63	65	41	40	58	59	90	55	75
	Gen. Surgeons	31	33	29	9	37	11	22	29	27	28
	S. Specialists ⁵	45	61	71	38	30	57	40	86	49	71
	Total	148	197	211	176	142	214	165	256	176	222
Dollars per 1000 residents	G. Practitioners	248	491	578	2,818	689	2,907	468	436	787	582
	Paediatricians	281	297	316	620	404	329	699	281	416	343
	Psychiatrists	188	264	401	125	160	228	352	859	274	618
	Obstet & Gyn	694	1,085	1,159	601	517	689	1,055	1,352	904	1,174
	M. Specialists ⁴	3,366	4,621	4,741	3,081	3,033	4,454	4,385	6,491	4,060	5,462
	Gen. Surgeons	1,641	1,718	1,485	481	1,985	548	1,157	1,500	1,404	1,456
	S. Specialists ⁵	2,100	2,834	3,299	1,751	1,406	2,700	1,859	3,989	2,307	3,271
	Total	8,518	11,311	11,979	9,477	8,194	11,855	9,976	14,911	10,153	12,908

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²As defined by Manitoba Health manual, 1990 (also see method section).

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

⁴Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

⁵Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 9 (continued)
Regional Utilization¹ of Physician Resources:
Consultative Ambulatory Care² by Physician Specialty
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Visits per patient	G. Practitioners	1.02	1.02	1.05	1.10	1.03	1.12	1.04	1.02	1.07	1.05
	Paediatricians	1.04	1.06	1.04	1.29	1.17	1.13	1.08	1.07	1.09	1.09
	Psychiatrists	1.06	1.05	1.11	1.11	1.11	1.15	1.04	1.13	1.07	1.12
	Obstet & Gyn	1.11	1.14	1.12	1.13	1.08	1.10	1.08	1.13	1.11	1.12
	M. Specialists ³	1.13	1.15	1.14	1.15	1.12	1.24	1.12	1.17	1.14	1.16
	Gen. Surgeons	1.06	1.07	1.07	1.05	1.09	1.06	1.04	1.06	1.06	1.06
	S. Specialists ⁴	1.10	1.10	1.11	1.12	1.08	1.11	1.07	1.12	1.10	1.12
	Total	1.25	1.29	1.31	1.31	1.25	1.33	1.24	1.34	1.27	1.32
Dollars per visit	G. Practitioners	40.11	39.81	39.97	42.84	40.65	42.63	40.42	39.23	41.38	40.41
	Paediatricians	78.18	77.73	78.54	74.93	76.15	78.38	76.34	80.38	77.05	78.45
	Psychiatrists	111.52	112.38	111.16	112.86	113.89	114.59	113.24	111.52	112.53	111.65
	Obstet & Gyn	48.34	48.25	48.30	48.30	48.60	48.76	49.27	48.25	48.62	48.36
	M. Specialists ³	73.76	73.59	72.66	74.86	75.08	76.40	74.94	72.03	74.22	72.72
	Gen. Surgeons	53.17	52.47	51.98	51.38	53.49	51.63	52.44	51.27	52.64	51.81
	S. Specialists ⁴	46.27	46.57	46.38	46.29	47.14	47.63	47.00	46.23	46.74	46.39
	Total	57.67	57.30	56.76	53.86	57.85	55.37	60.31	58.23	57.62	58.05

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²As defined by Manitoba Health manual, 1990 (also see method section).

³Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

⁴Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 10
Regional Utilization¹ of Physician Resources:
Non-Consultative Ambulatory Care² by Physician Specialty
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Number of residents		94,474	85,152	71,929	24,956	46,038	44,965	117,774	655,118	485,288	1,140,406
Percent making contact ³	G. Practitioners	78.578	77.537	77.670	80.077	80.215	75.660	77.808	74.641	77.984	76.192
	Paediatricians	3.316	5.023	8.404	0.936	0.817	3.503	6.148	12.716	4.602	8.883
	Psychiatrists	0.384	0.762	0.924	0.137	0.165	0.174	0.514	2.159	0.516	1.485
	Obstet & Gyn	1.800	3.426	4.030	0.849	1.187	1.526	2.716	5.752	2.536	4.478
	M. Specialists ⁴	3.837	5.713	6.912	1.944	1.848	2.499	4.050	12.864	4.306	9.253
	Gen. Surgeons	3.624	2.194	3.037	0.548	1.960	0.902	4.714	3.480	3.072	3.315
	S. Specialists ⁵	6.292	7.378	8.819	3.397	3.626	5.172	7.721	12.119	6.762	9.831
	Total	80.863	81.078	83.587	80.693	80.799	77.264	82.160	84.984	81.221	83.326
Visits per 1000 residents	G. Practitioners	3,565	3,723	3,865	4,878	4,136	4,232	3,826	3,569	3,875	3,707
	Paediatricians	111	145	299	18	18	63	223	484	147	325
	Psychiatrists	23	47	57	11	9	5	29	198	31	130
	Obstet & Gyn	29	59	68	14	20	29	48	101	43	78
	M. Specialists ⁴	81	129	160	33	33	48	124	373	105	259
	Gen. Surgeons	76	40	68	9	34	12	124	79	71	76
	S. Specialists ⁵	107	132	153	53	58	74	135	229	116	181
	Total	3,992	4,276	4,670	5,015	4,308	4,463	4,509	5,034	4,388	4,756
Dollars per 1000 residents	G. Practitioners	67,894	72,881	74,225	94,570	80,671	87,282	73,754	65,893	74,849	69,848
	Paediatricians	2,441	3,255	6,459	433	420	1,618	4,887	10,474	3,266	7,062
	Psychiatrists	1,595	3,139	3,740	856	622	303	2,160	13,887	2,106	9,122
	Obstet & Gyn	696	1,425	1,641	337	446	633	972	2,451	996	1,875
	M. Specialists ⁴	2,057	3,141	3,986	893	965	1,206	3,110	8,919	2,635	6,252
	Gen. Surgeons	1,373	720	1,314	185	655	309	2,255	1,409	1,300	1,366
	S. Specialists ⁵	2,386	2,939	3,472	1,247	1,356	1,809	2,951	5,083	2,604	4,022
	Total	78,455	87,501	94,843	98,528	85,170	93,164	90,096	108,119	87,766	99,553

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment.

²As defined by Manitoba Health manual, 1990 (also see method section).

³Rates of persons making contact with a physician is a useful indicator of the ability of people to receive physician services and is therefore relevant for comparisons of access.

⁴Medical Specialists include general internists plus those with a subspecialty such as neurology, geriatrics, rheumatology, etc.

⁵Surgical Specialists include all specialists such as thoracic & cardiovascular, plastic, urology, etc.

Table 10(continued)
Regional Utilization¹ of Physician Resources:
Non-Consultative Ambulatory Care² by Physician Specialty
1991/1992

		Central	Eastman	Interlake	Norman	Parklands	Thompson	Westman	Winnipeg	Non- Winnipeg	Province
Visits per patient	G. Practitioners	4.54	4.80	4.98	6.09	5.16	5.59	4.92	4.78	4.97	4.87
	Paediatricians	3.34	2.89	3.55	1.89	2.16	1.78	3.62	3.81	3.20	3.65
	Psychiatrists	6.00	6.21	6.13	7.91	5.31	2.71	5.74	9.19	5.96	8.79
	Obstet & Gyn ialists ³	1.62	1.71	1.68	1.63	1.66	1.89	1.76	1.76	1.71	1.75
	Gen. Surgeons	2.11	2.26	2.31	1.69	1.80	1.93	3.06	2.90	2.43	2.80
	S. Specialists ⁴	2.09	1.84	2.25	1.68	1.73	1.38	2.64	2.27	2.31	2.29
		1.70	1.78	1.74	1.55	1.60	1.43	1.75	1.89	1.72	1.84
	Total	4.94	5.27	5.59	6.22	5.33	5.78	5.49	5.92	5.40	5.71
Dollars per visit	G. Practitioners	19.04	19.57	19.20	19.39	19.50	20.62	19.28	18.46	19.31	18.84
	Paediatricians	22.04	22.41	21.63	24.46	23.79	25.88	21.96	21.63	22.21	21.76
	Psychiatrists	69.33	66.34	66.10	79.20	70.98	64.27	73.21	70.01	68.56	69.92
	Obstet & Gyn M. Specialists ³	23.81	24.27	24.26	24.32	22.60	21.99	20.36	24.25	22.94	23.96
	Gen. Surgeons	25.41	24.30	24.91	27.11	28.99	25.03	25.11	23.92	25.17	24.15
	S. Specialists ⁴	18.14	17.80	19.25	20.05	19.28	24.83	18.12	17.82	18.32	18.02
		22.25	22.31	22.62	23.66	23.31	24.48	21.85	22.15	22.43	22.23
	Total	19.65	20.46	20.31	19.65	19.77	20.88	19.98	21.48	20.00	20.93

¹All rates have been age- and sex-adjusted using Manitoba population proportions and the method of direct adjustment

²As defined by Manitoba Health manual, 1990 (also see method section).

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