Morbidity

Chapter Contents

Key Findings

The health-adjusted life expectancy (HALE) for Saskatchewan residents increased between 2000/02 and 2005/07 to 67.4 years for males and 70.3 years for females.

From 1995 to 2008 all cause hospitalization rates decreased significantly in Saskatchewan. Both male and female rates decreased, with females having higher rates compared to males.

When examining the broad categories of disease and conditions grouped by the International Classification of Diseases (ICD) chapters over the 1995 to 2008 time period, the chapters with decreasing hospital separation rates included infectious and parasitic diseases, neoplasms, diseases of blood and blood-forming organs, mental disorders, nervous system disorders, circulatory system diseases, respiratory diseases, digestive system diseases, genitourinary system diseases, pregnancy, childbirth and the puerperium, skin and subcutaneous tissue diseases, musculoskeletal diseases, congenital anomalies, perinatal conditions, ill-defined conditions, and injury and poisoning. The only category that had relatively stable rates was endocrine, nutritional and metabolic diseases.

For males, the top two ICD chapter causes of hospital separations in 2008 were circulatory system diseases and digestive system diseases. For females, the top two ICD chapter causes of hospital separations in 2008 were pregnancy, childbirth and conditions of the puerperium, and digestive system diseases.

Canadian Community Health Survey (CCHS) respondents reporting good, very good or excellent health remained fairly constant at approximately 87 percent.

Introduction

This chapter describes morbidity (disease and illness) as measured by hospital separations for the Saskatchewan population including average length of stay and hospitalizations by ICD chapters.

One of the most comprehensive and accessible sources of morbidity information is the provincial hospital administrative database which records hospital separations. A hospital separation occurs when a person leaves the hospital. It is the discharge or transfer from a hospital, or a death that occurs in a hospital and is recorded at the time of the discharge.

Hospitalization statistics provide information on conditions serious enough to require stay in a hospital and are influenced by both availability of hospital beds and current practice regarding use of hospitals. In addition, individuals may be hospitalized more than once for the same condition.

Hospitalization represents the severe end of the illness spectrum and as result, does not include those with nonsevere illness.

Definitions and references are available at the end of the chapter.

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For males, the top two ICD chapter causes of hospital separations in 2008 were circulatory system diseases and digestive system diseases. For females, the top two ICD chapter causes of hospital separations in 2008 were pregnancy, childbirth and conditions of the puerperium, and digestive system diseases.

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Hospitalization statistics provide information on conditions serious enough to require stay in a hospital and are influenced by both availability of hospital beds and current practice regarding use of hospitals. In addition, individuals may be hospitalized more than once for the same condition.

Hospitalization represents the severe end of the illness spectrum and as result, does not include those with nonsevere illness.

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Health-adjusted Life Expectancy

Health-adjusted life expectancy (HALE) is the number of years in full health that an individual can expect to live given the current morbidity and mortality conditions. It is a summary measure of population health that combines mortality and morbidity data into a single index (Statistics Canada, 2012).

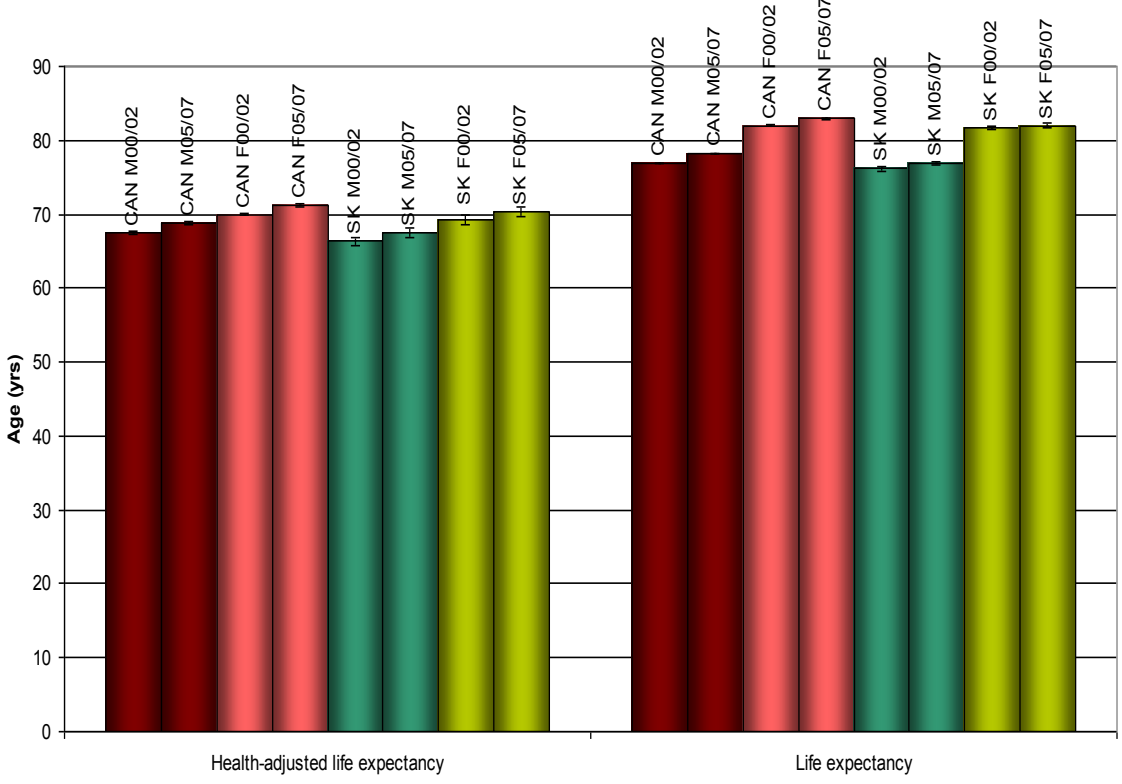
HALE differs from life expectancy which is an estimate of the number of years a person would be expected to live, either from birth or from age 65 years, based on age and sex-specific mortality rates for a given period, under the assumption that these mortality rates would stay constant over subsequent years (St-Arnaud, J et al., 2005).

As expected, for all years (2000/02 and 2005/07) and categories (Canada, Saskatchewan, males and females), life expectancy was significantly higher than HALE (Figure 6.1).

In 2000/02 and 2005/07, the HALE was significantly higher for Canada than for Saskatchewan. From 2000/02 to 2005/07, the HALE at birth increased slightly for both Canada and Saskatchewan males and females (Figure 6.1). The increases were significant for Canadian males and females and also for Saskatchewan males.

The HALE at birth for Saskatchewan men was 67.4 years in 2005/07 and for Saskatchewan women was 70.3 years, with a difference between the sexes of 2.9 years. The HALE at birth for Canadian men was 68.9 years in 2005/07 and for Canadian women was 71.2 years, with a difference between the sexes of 2.3 years.

Fig: 6.1 **HALE and Life Expectancy: At birth by Sex, Canada and Saskatchewan, 2000/02 and 2005/07**



All Cause Morbidity

Hospital separation reflects the upper limit of the non-fatal disease severity continuum. Morbidity analysis by all causes provides information on the total numbers of hospital separations within a population and is used to monitor diseases and health status, and also to plan health services.

In 2010-11, Saskatchewan had the fourth highest age-sex standardized all cause hospital separation rate (10,897 per 100,000) for the Canadian provinces and territories. (Figure 6.2)

The provinces or territories with the highest all-cause rates were Nunavut, Northwest Territories and Yukon, at 14,888, 14,404 and 11,309 per 100,000, respectively. The lowest all-cause rate was in Ontario, with a rate of 6,958 per 100,000.

Of the three prairie provinces, Saskatchewan had the highest all cause hospital separation rates followed by Manitoba and Alberta.

In 2010-11, Saskatchewan all cause age-standardized average length of hospital stay (ALOS) was 6.5 days (Figure 6.3). During the same time period, the all cause ALOS for Canada was 7.3 days. The highest ALOS was found in Manitoba and Nova Scotia, at 8.5 days, while Nunavut had the lowest at 3.2 days.

Of the three prairie provinces, Manitoba had the highest all cause ALOS followed by Alberta and Saskatchewan.

Fig: 6.2 **All Cause Hospitalization: Age-sex standardized Rate of Hospitalization, Provinces, Territories and Canada, 2010-11**

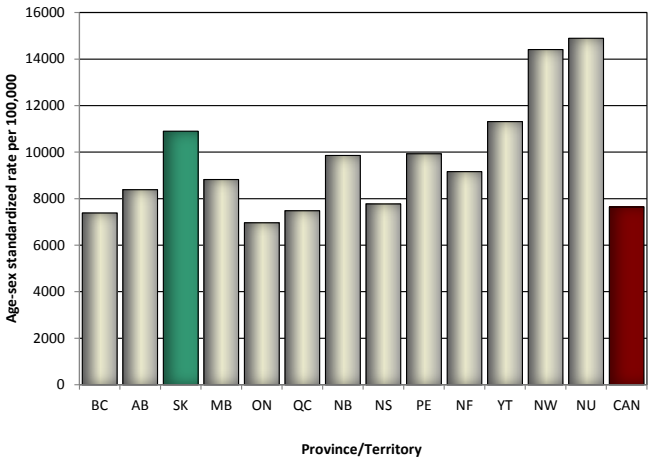
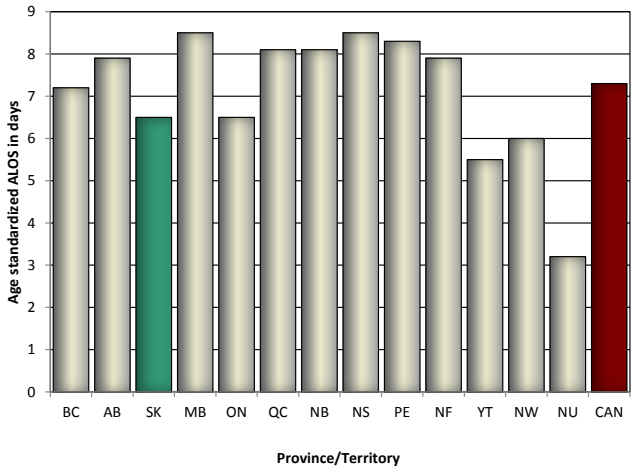


Fig: 6.3 **All Cause Hospitalization: Age standardized Average Length of Stay (ALOS) in days, Provinces, Territories and Canada, 2010-11**



Morbidity rates, represented as all cause hospitalization, exhibited a significant downward trend over the time period 1995-2008, declining 27 percent from 14,956 per 100,00 in 1995 to 10,903 per 100,000 in 2008 (Figure 6.4).

As would be expected, rates of hospital separation increased with age with the exception of the less than one year age group which includes births. The age-specific rates declined slightly in all groups over the 14 year time period (Figure 6.5)

The highest rate of hospital separations was in those aged 75 years and older at 42,178 per 100,000. The age-specific rate of this age group was nearly twice that of the next highest rates, the less than one year (23,137 per 100,000) and the 65 to 74 year age group (22,720 per 100,000).

In 2008, age-specific all-cause hospital separation rates per 100,000 population were found for the following age groups:

Less than 1 year	23,137.0
1-19 years	4,990.9
20-44 years	9,360.5
45-64 years	9,702.8
65-74 years	22,719.7
75+ years	42,178.1

Sex-specific hospital separation rates due to all causes were greater in females than males for every year from 1995 to 2008 and both decreased over the time period (Figure 6.6). In 2008, the all cause rate was 13,774.9 per 100,000 for females, and 10,7073.9 per 100,000 for males.

Fig: 6.4 **All Cause Hospitalization: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008**

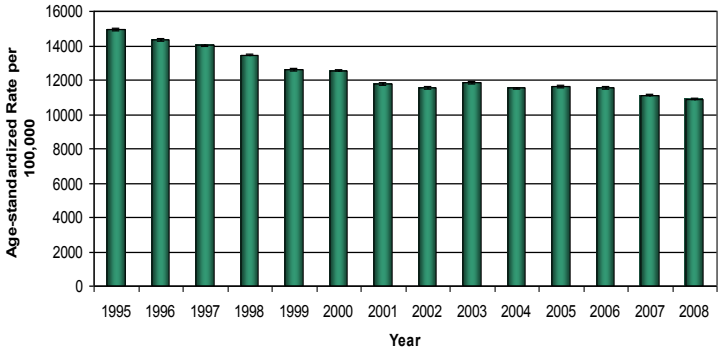


Fig: 6.5 **All-cause Hospitalization: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008**

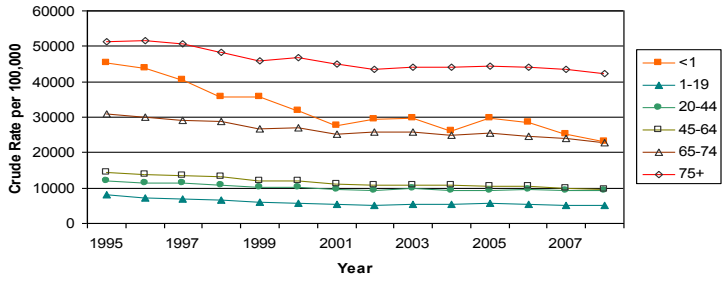
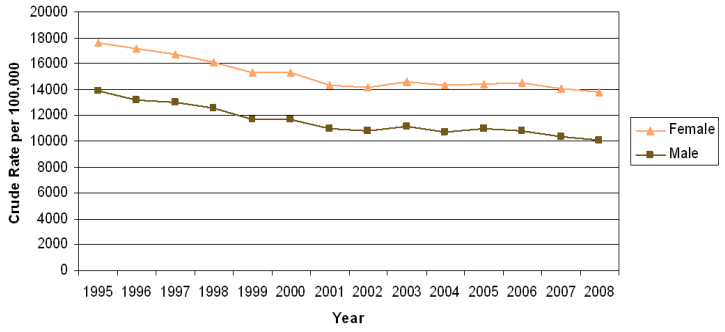


Fig: 6.6 **All Cause Hospitalization: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008**



For males, hospital separation rates for all causes in most age groups decreased slightly over the period 1995 to 2008 (Figure 6.7). The largest decrease was seen in the less than one year group. The rates were consistently higher in those aged 75 and over.

All cause hospital separation rates for females in most age groups decreased slightly over the period 1995 to 2008 (Figure 6.8). The largest decrease was seen in the less than one year group. The rates were consistently higher in those aged 75 and over.

In 2008, the age-standardized hospital separation rate due to all causes was 10,903.1 per 100,000 in Saskatchewan. Rates for Athabasca, Cypress, Heartland, Kelsey Trail, Keewatin Yatthé, Mamawetan Churchill River, Prince Albert Parkland, Prairie North, Sun Country and Sunrise Regional Health Authorities were significantly higher than the provincial rate and significantly lower for Regina Qu'Appelle and Saskatoon.

Fig: 6.7 All Cause Hospitalization: Crude Rate of Hospital Separations among Males in Saskatchewan by Age Group, 1995 - 2008

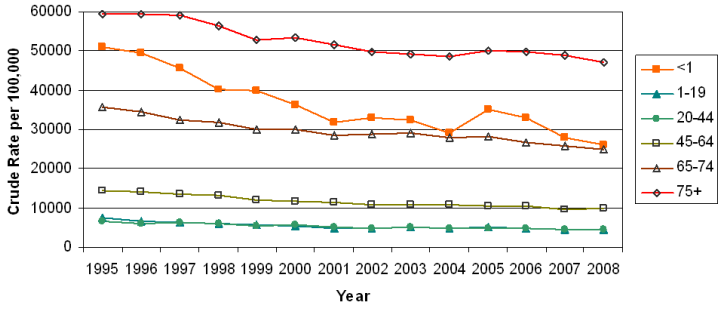
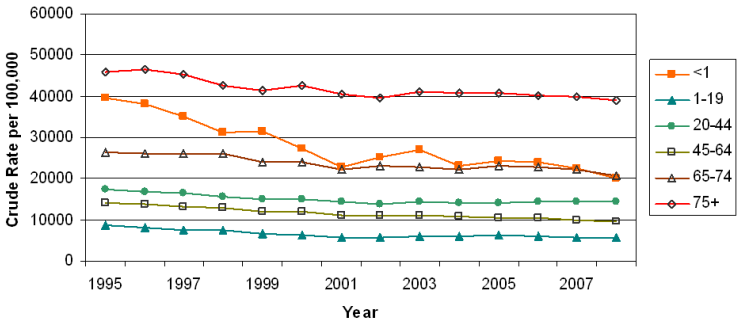


Fig: 6.8 All Cause Hospitalization: Crude Rate of Hospital Separations among Females in Saskatchewan by Age Group, 1995 - 2008



Morbidity by ICD Chapters

Morbidity analysis by International Classification of Diseases (ICD) chapters enables an examination of broad categories of illness in terms of related conditions.

In 2008 the highest rates were caused by maternal conditions, followed by digestive system diseases, then respiratory system diseases and closely followed by circulatory system diseases (Figure 6.9).

When analysis was stratified by sex, some differences were noted (Figure 6.10). After maternal conditions, the highest hospital separations for females were caused by digestive system diseases, followed by circulatory system diseases and respiratory diseases. For males, the highest hospital separations were due to circulatory system diseases followed digestive system diseases and respiratory system diseases.

Fig: 6.9

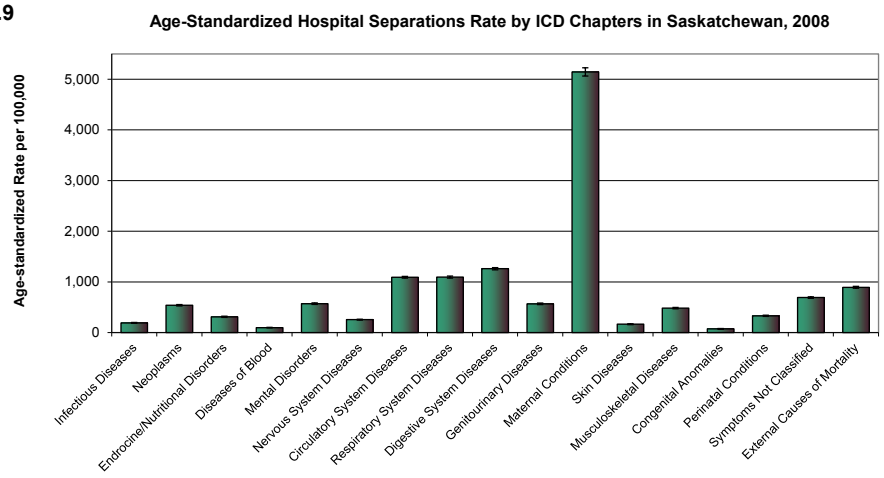
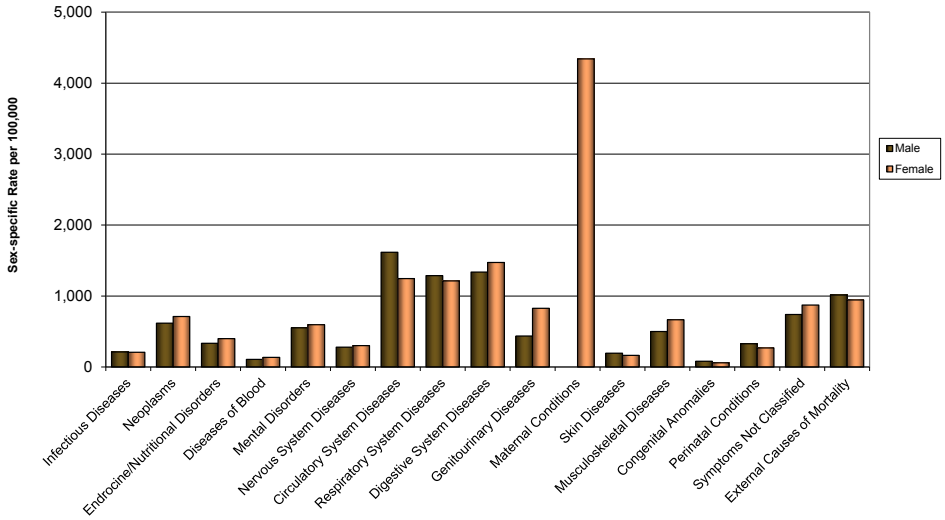


Fig: 6.10



Infectious and Parasitic Diseases: This ICD chapter includes infections and diseases caused by bacterial, viral, fungal, parasitic and other infectious agents. Hospital separation rates due to infectious and parasitic diseases decreased significantly from 1995 to 2008 in Saskatchewan, from 261.6 per 100,000 in 1995 to 192.8 per 100,000 in 2008 (Figure 6.11).

Hospital separation rates varied across age groups over the period 1995-2008, with the highest rate in those aged less than one year. The hospital separation rate of this age group varied between two and five times the rate of the next highest group, the 75 years and older age category, and decreased 61 percent during the fourteen year time period (Figure 6.12). The age-specific rates for the remaining age groups remained relatively stable over the same time period.

In 2008, the age-specific hospital separation rates per 100,000 population due to infectious and parasitic diseases were found for the following age groups:

Less than 1 year	1,125.7
1-19 years	212.6
20-44 years	97.4
45-64 years	155.7
65-74 years	319.2
75+ years	622.5

Sex-specific hospital separation rates decreased for both sexes over the period 1995 to 2008 (Figure 6.13). Male and female rates were quite similar and both exhibited fluctuations over the fourteen years.

In 2008, the rate was 192.8 per 100,000 in Saskatchewan. Rates for Five Hills, Keewatin Yatthé, Regina Qu'Appelle and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Heartland, Prairie North and Saskatoon were significantly lower.

Fig: 6.11 Infectious & Parasitic Diseases: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

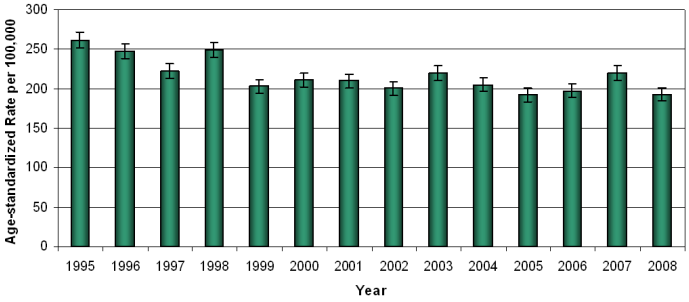


Fig: 6.12 Infectious & Parasitic Diseases: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

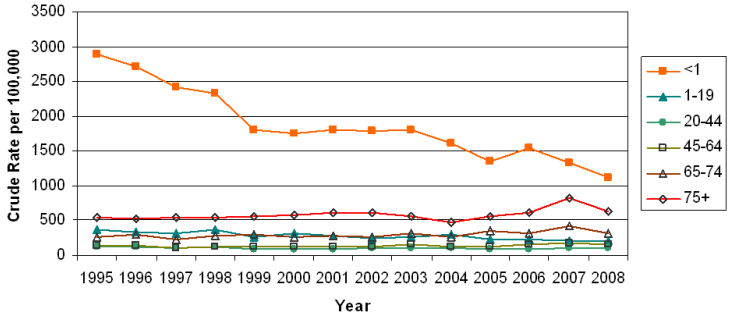
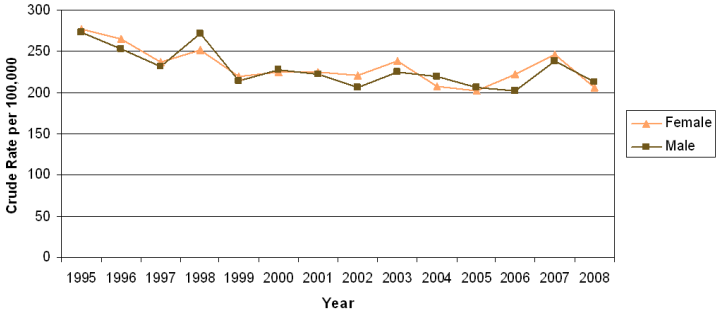


Fig: 6.13 Infectious & Parasitic Diseases: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Neoplasms: This ICD chapter includes the malignant, benign, in situ and other neoplasms. Hospital separation rates due to neoplasms decreased significantly from 1995 to 2008 in Saskatchewan, from 793.3 per 100,000 in 1995 to 541.7 per 100,000 in 2008 (Figure 6.14).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rate in those aged 75 years and older (Figure 6.15). The age-specific rate of this group was 15 to 30 percent higher than the rate of the next highest group, the 65 to 74 year age group, and rates for both age groups decreased over the time period. The rates for the remaining age groups were stable or slightly decreased. Hospitalization in those aged under one year was rare over the observation period and therefore, the rates were not displayed.

In 2008, the age-specific hospital separation rates per 100,000 population due to neoplasms were found for the following age groups:

1-19 years	97.6
20-44 years	179.6
45-64 years	952.1
65-74 years	2,216.2
75+ years	2,548.7

Sex-specific hospital separation rates decreased for both sexes over the time period 1995 to 2008 (Figure 6.16). The rate was consistently higher for females than males.

In 2008, the rate due to neoplasms was 541.7 per 100,000 in Saskatchewan. Rates for Cypress, Kelsey Trail and Prairie North Regional Health Authorities were significantly higher than the province and Mamawetan Churchill River and Regina Qu'Appelle were significantly lower.

Fig: 6.14 Neoplasms: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

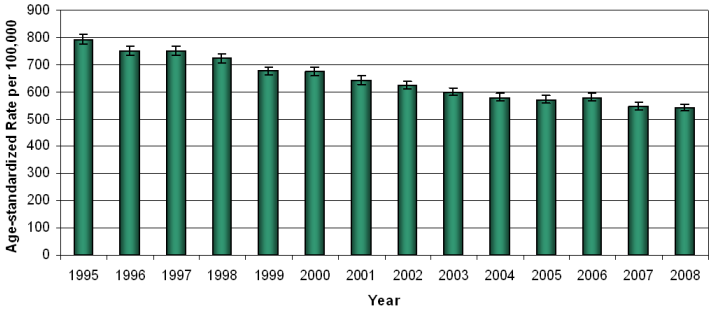


Fig: 6.15 Neoplasms: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

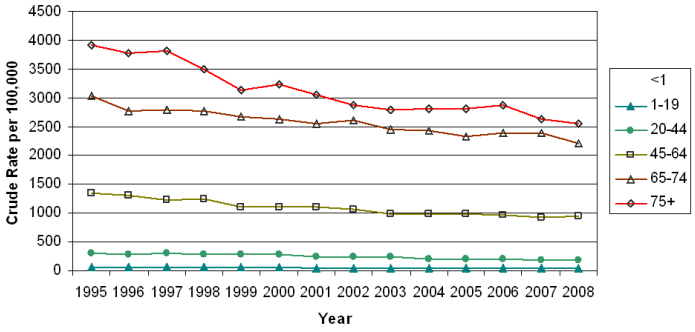
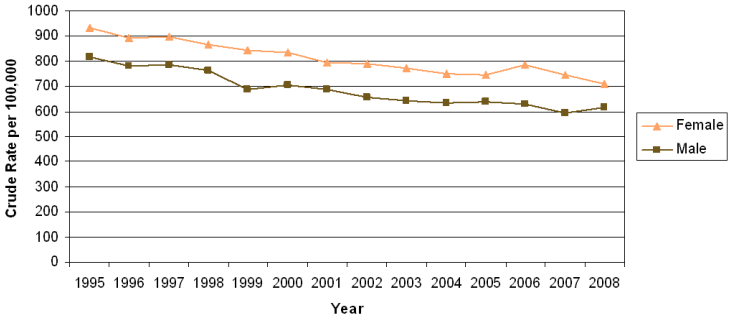


Fig: 6.16 Neoplasms: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Endocrine, Nutritional and Metabolic Diseases: This ICD chapter includes diseases of the endocrine system such as the thyroid gland, pancreas including diabetes, and other glands; nutritional diseases such as malnutrition, obesity, and metabolic disorders of proteins, fats and carbohydrates. Hospital separation rates due to endocrine, nutritional and metabolic diseases fluctuated from 1995 to 2008 in Saskatchewan (Figure 6.17). The rates between 324.0 per 100,000 in 1995 and 312.2 per 100,000 in 2008 did not significantly differ.

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rate in those aged 75 years and older being over one and a half times the rate of the next highest group, the 65 to 74 year age group, which was two times higher than the rate for the 45 to 64 year age group (Figure 6.18). The age-specific rates for the remaining age groups remained relatively stable over the same time period.

In 2008, the age-specific hospital separation rates per 100,000 population due to endocrine, nutritional and metabolic disease were found for the following age groups:

Less than 1 year	202.6
1-19 years	104.4
20-44 years	177.3
45-64 years	380.5
65-74 years	924.0
75+ years	1,554.3

Sex-specific hospital separation rates remained stable for both sexes over the time period 1995 to 2008 (Figure 6.19). The rate was consistently higher for females than males.

In 2008, the rate due to endocrine, nutritional and metabolic disease was 312.2/100,000 in Saskatchewan. Rates for Cypress, Kelsey Trail, Mamawetan Churchill River, Prairie North, and Sunrise were significantly higher than the provincial rate and Five Hill and Saskatoon Regional Health Authorities were significantly lower.

Fig: 6.17 Endocrine, Nutritional & Metabolic Diseases: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

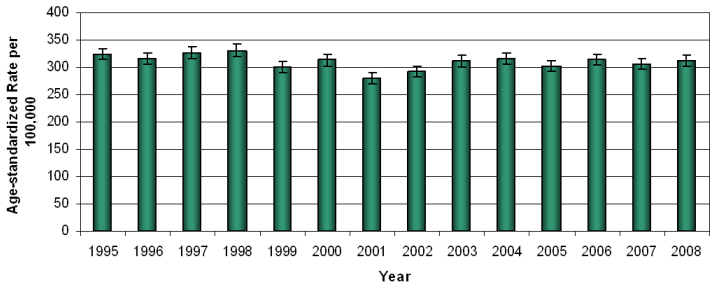


Fig: 6.18 Endocrine, Nutritional & Metabolic Diseases: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

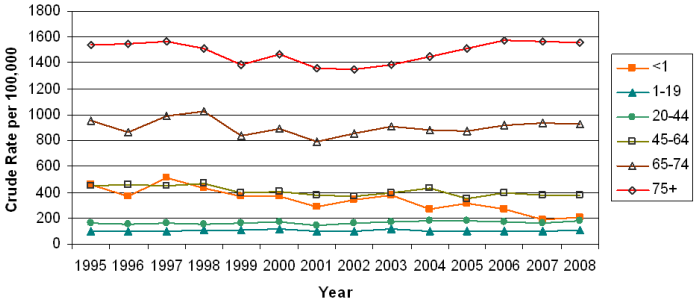
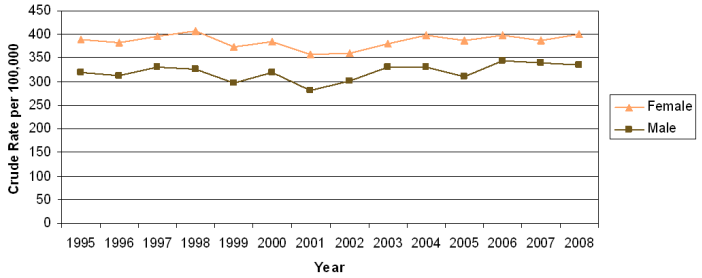


Fig: 6.19 Endocrine, Nutritional & Metabolic Diseases: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of Blood and Blood-forming Organs and Immunity Disorders: This ICD chapter includes anemias, haemorrhagic conditions and immune disorders. Hospital separation rates due to diseases of blood and blood-forming organs decreased significantly from 1995 to 2008 in Saskatchewan. Although stable during 2001 to 2008, a significant decrease in the rates was observed between 1995 and 2000 so the rate significantly decreased from 127.0 to 98.6 per 100,000 between 1995 and 2008 (Figure 6.20).

Hospital separation rates varied across age groups over the period 1995-2008, with the highest rate in those aged 75 years and older (Figure 6.21). The age-specific rate of this group was just over double the rate of the next highest group, the 65 to 74 year age group. The rates for all age groups have remained fairly stable during the time period. Hospitalization in those aged under 1 year was rare over the observation period and, therefore, the rates were not displayed.

In 2008, the age-specific hospital separation rates per 100,000 population due to blood and immunity disorders were found for the following age groups:

1-19 years	48.5
20-44 years	34.2
45-64 years	95.2
65-74 years	296.8
75+ years	673.6

Sex-specific hospital separation rates decreased for both sexes over the time period 1995 to 2009 (Figure 6.22). In all years, the rate was slightly higher for females than for males.

In 2008, the rate due to diseases of blood and blood-forming organs & immunity disorders was 98.6/100,000 in Saskatchewan. Rates for Cypress, Keewatin Yatthé and Sunrise Regional Health Authorities were statistically higher than the provincial rate and Saskatoon had a significantly lower rate.

Fig: 6.20 Blood Diseases & Certain Immune Mechanism Disorders: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

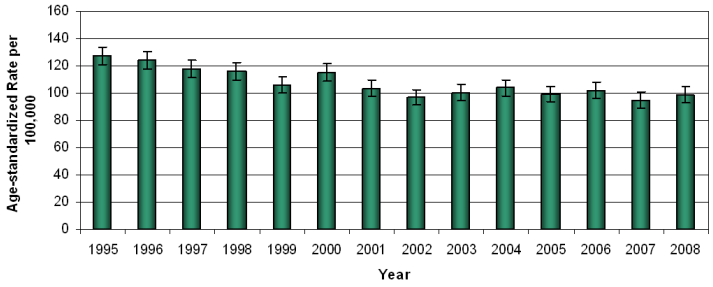


Fig: 6.21 Blood Diseases & Certain Immune Mechanism Disorders: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

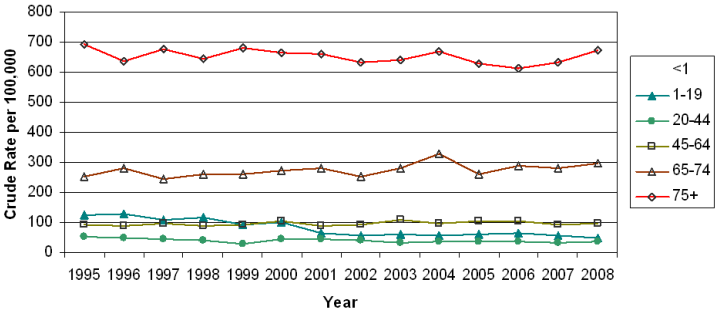
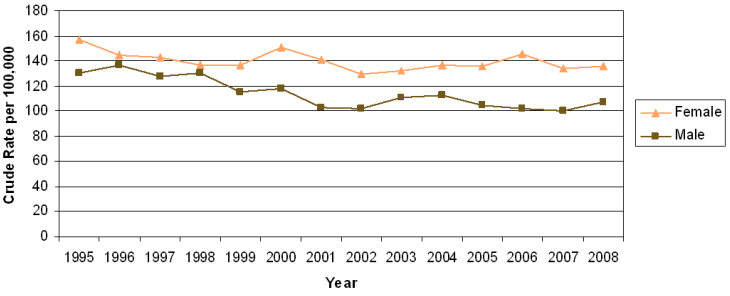


Fig: 6.22 Blood Diseases & Certain Immune Mechanism Disorders: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Mental Disorders: This ICD chapter includes mental and behavioural disorders including substance use, schizophrenia, mood disorders, neurotic disorders and dementias. Hospital separation rates due to mental disorders decreased significantly from 1995 to 2008 in Saskatchewan. Although stable during 2001 to 2008, a significant decrease in the rates was observed between 1995 and 2000 so the rate significantly decreased from 760.7 to 572.0 per 100,000 between 1995 and 2008 (Figure 6.23).

Hospital separation rates varied across age groups over the period 1995-2008, with the highest rate in those aged 75 years and older. The age-specific rates of most age groups remained fairly stable or decreased slightly during the time period (Figure 6.24), although there was a significant decrease in rates for those aged 75 years and older. Hospitalization in those aged under 1 year was rare over the observation period and, therefore, the rates were not displayed.

In 2008, the age-specific hospital separation rates per 100,000 population due to mental disorders were found for the following age groups:

1-19 years	321.6
20-44 years	716.3
45-64 years	591.8
65-74 years	509.6
75+ years	873.0

Sex-specific hospital separation rates decreased for both sexes over the period 1995 to 2008 (Figure 6.25). The rate was consistently higher in females.

In 2008, the rate for Saskatchewan was 572.0 per 100,000. Rates for Athabasca Health Authority, Cypress, Five Hills, Kelsey Trail, Mamawetan Churchill River, Prairie North and Prince Albert Parkland Regional Health Authorities were statistically higher than the provincial rate and Saskatoon was significantly lower.

Fig: 6.23 Mental & Behavioural Disorders: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

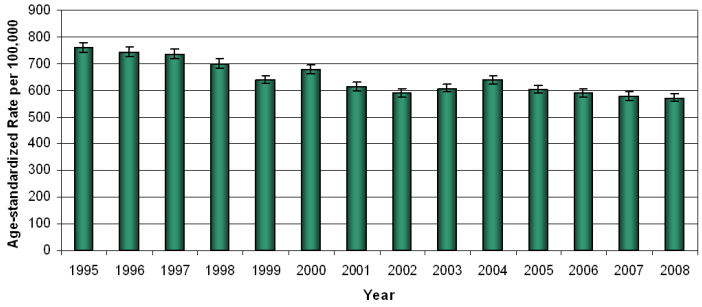


Fig: 6.24 Mental & Behavioural Disorders: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

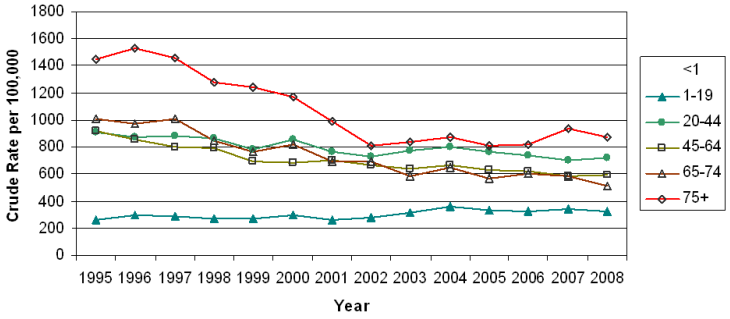
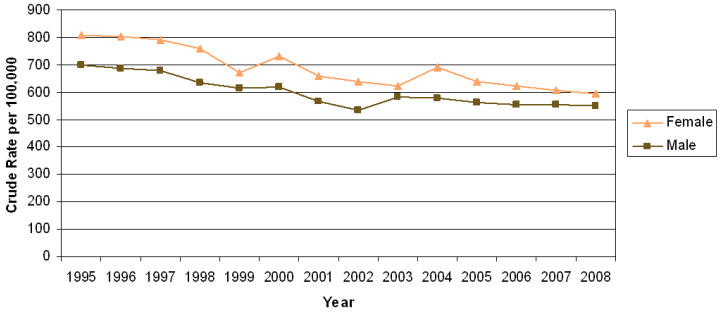


Fig: 6.25 Mental & Behavioural Disorders: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Nervous System and Sense Organs: This ICD chapter includes nervous system disorders such as inflammatory diseases of the central nervous system, Alzheimer's disease, demyelinating diseases (for example, multiple sclerosis), as well as diseases of the sense organs. Hospital separation rates due to diseases of the nervous system and sense organs decreased significantly from 1995 to 2008 in Saskatchewan, from 440.6 to 256.1 per 100,000 (Figure 6.26).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rates in those aged 75 years and over and the less than one year groups, both of which saw significant decreases over the observation period. (Figure 6.27).

In 2008, the age-specific hospital separation rates per 100,000 population due to diseases of the nervous system and sense organs were found for the following age groups:

Less than 1 year	637.9
1-19 years	164.8
20-44 years	153.3
45-64 years	262.5
65-74 years	578.2
75+ years	1,083.9

Sex-specific hospital separation rates varied for both sexes over the time period 1995 to 2008, with a decrease seen for both (Figure 6.28). The rate was slightly higher in females than for males in all years.

In 2008, the rate due to diseases of the nervous system and sense organs was 256.1/100,000 in Saskatchewan. Rates for Cypress, Heartland, Mamawetan Churchill River, Prairie North, Sun Country and Sunrise Regional Health Authorities were statistically higher than the provincial rate and Saskatoon was significantly lower.

Fig: 6.26 Diseases of the Nervous System & Sense Organs: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

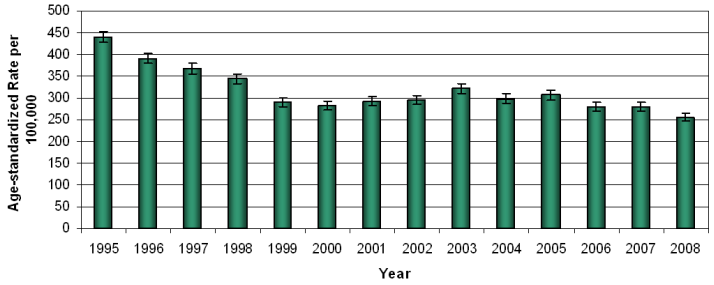


Fig: 6.27 Diseases of the Nervous System & Sense Organs: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

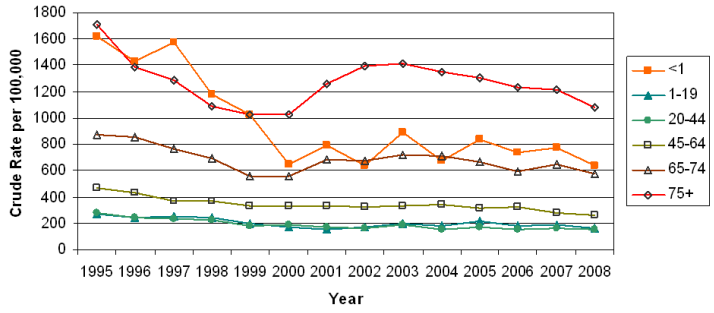
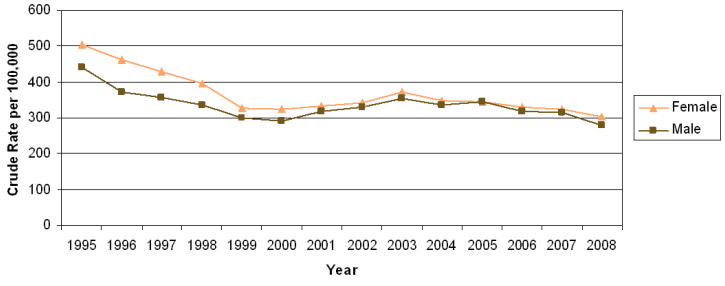


Fig: 6.28 Diseases of the Nervous System & Sense Organs: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Circulatory System: This ICD chapter includes conditions such as rheumatic fever, hypertensive diseases, ischemic heart diseases, and pulmonary heart disease. Hospital separations rates due to diseases of the circulatory system decreased significantly from 1995 to 2008 in Saskatchewan, from 1751.8 to 1092.8 per 100,000 (Figure 6.29).

Hospital separation rates varied across age groups over the time period 1995-2008. The highest rates were in those aged 75 years and older which were approximately two times that of the next highest group, the 65 to 74 year age group and both age groups decreased over the time period (Figure 6.30). Hospitalization in those aged under 1 year was rare over the observation period and, therefore, the rates were not displayed.

In 2008, the age-specific hospital separation rates per 100,000 population due to diseases of the circulatory system were found for the following age groups:

1-19 years	62.0
20-44 years	239.9
45-64 years	1,356.5
65-74 years	4,340.1
75+ years	9,048.4

Sex-specific hospital separation rates decreased gradually for both sexes over the time period 1995 to 2008. The male rate was higher than female rate in every year (Figure 6.31).

In 2008, the rate due to diseases of the circulatory system was 1,092.8/100,000 in Saskatchewan. Rates for Cypress, Prairie North, Sunrise and the Northern Regional Health Authorities were significantly higher than the provincial rate and Regina Qu'Appelle and Saskatoon were statistically lower.

The three northern regions (Mamawetan Churchill River, Keewatin Yatthé and the Athabasca Health Authority) were combined due to small numbers of separations in each region.

Fig: 6.29 Diseases of the Circulatory System: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

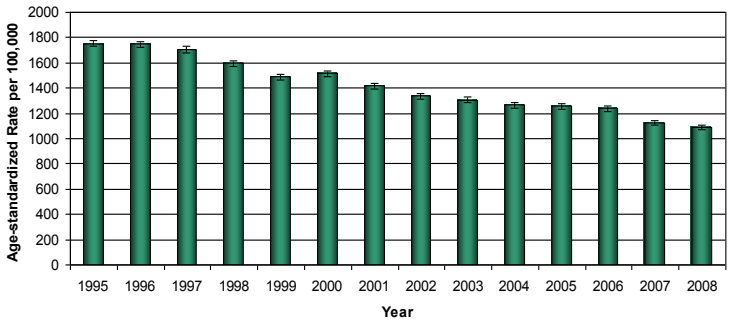


Fig: 6.30 Diseases of the Circulatory System: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

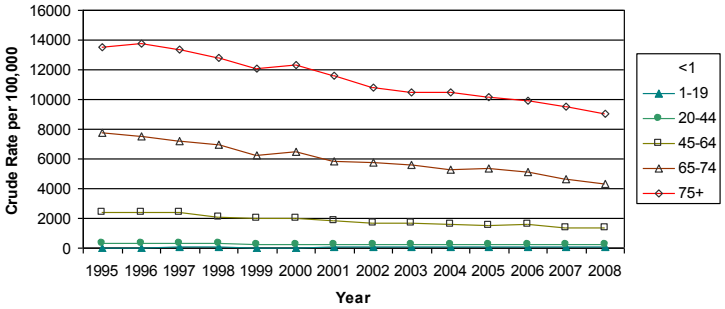
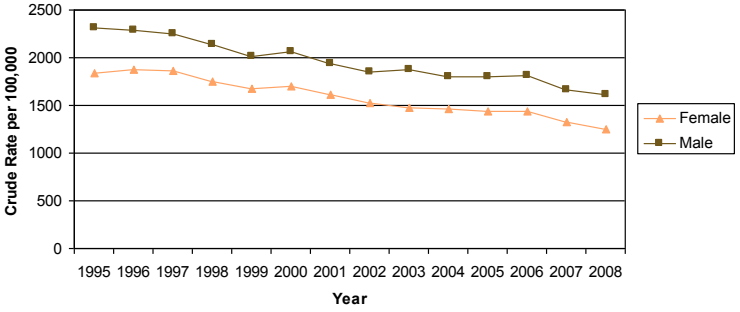


Fig: 6.31 Diseases of the Circulatory System: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Respiratory System: This ICD chapter includes the upper and lower respiratory conditions such as asthma and COPD and acute and chronic respiratory infections. Hospital separation rates due to diseases of the respiratory system decreased significantly from 1995 to 2008 in Saskatchewan, especially between 1995 and 1997 and 1999 and 2001. Overall the rates decreased from 1,969.8 to 1,097.0 per 100,000 (Figure 6.32).

Hospitalization rates for most age groups were stable over the time period 1995-2008, with the highest rate in those aged less than one year which decreased over the time period. The age-specific rate of this group was between 1.5 and 3.5 times higher than the next highest group, the 75 year and older age group (Figure 6.33).

In 2008, the age-specific hospital separation rates per 100,000 population due to diseases of the respiratory system were found for the following age groups:

Less than 1 year	7,977.5
1-19 years	1,143.2
20-44 years	336.1
45-64 years	715.0
65-74 years	2,387.1
75+ years	5,282.8

Sex-specific hospital separation rates decreased for both females and males over the time period 1995 to 2008 (Figure 6.34). The rate was higher in males than for females for all years.

In 2008, the rate due to diseases of the respiratory system was 1,097.0/100,000 in Saskatchewan. Rates for Cypress, Heartland, Kelsey Trail, Prince Albert, Prairie North, Sunrise and the combined three Northern Regional Health Authorities were significantly higher than the provincial rate and only Saskatoon was significantly lower.

Fig: 6.32 Diseases of the Respiratory System: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

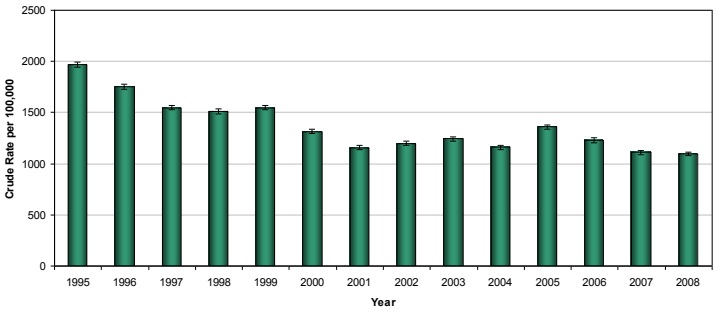


Fig: 6.33 Diseases of the Respiratory System: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

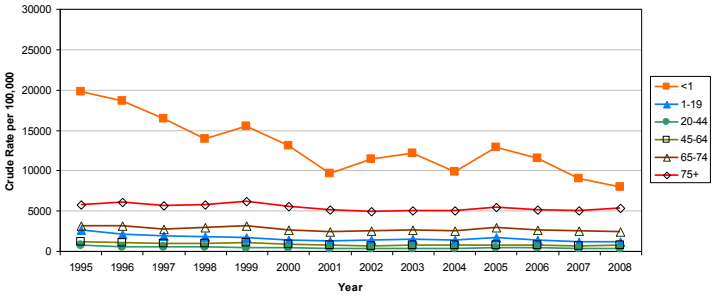
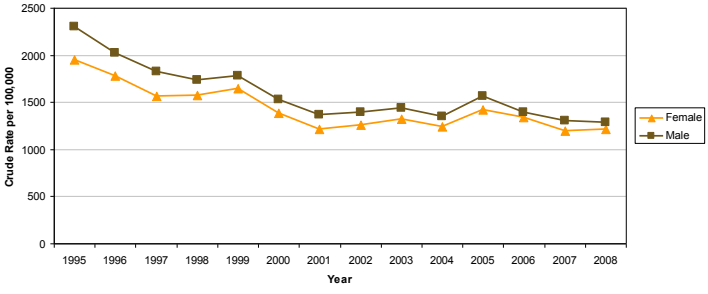


Fig: 6.34 Diseases of the Respiratory System: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Digestive System: This ICD chapter includes diseases and disorders of the teeth, stomach, appendix, intestines, liver and other digestive system components. Hospital separation rates due to diseases of the digestive system decreased significantly from 1995 to 2008 in Saskatchewan, from 1,829.0 per 100,000 in 1995 to 1,262.0 per 100,000 in 2008 (Figure 6.35).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rates in those aged 75 years and older and was approximately 25 percent to 50 percent higher than the next highest rates in the 65 to 74 year and less than one year age groups (Figure 6.36). The rates decreased in all these categories during the time period.

In 2008, the age-specific hospital separation rates per 100,000 due to diseases of the digestive system were found for the following age groups:

Less than 1 year	2,108.8
1-19 years	584.3
20-44 years	958.5
45-64 years	1,442.0
65-74 years	2,756.7
75+ years	4,623.3

Sex-specific hospital separation rates decreased slightly over the time period 1995 to 2008 (Figure 6.37). The rate was similar for the sexes for most years, with females slightly higher in each year.

In 2008, the rate due to diseases of the digestive system was 1,262.0 per 100,000 in Saskatchewan. Rates for Athabasca Health Authority, Cypress, Five Hills, Heartland, Kelsey Trail, Mamawetan Churchill River, Prairie North, Sun Country, and Sunrise Health Regional Health Authorities were statistically higher than the provincial rate and Prince Albert Parkland and Saskatoon had lower rates.

Fig: 6.35 Diseases of the Digestive System: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

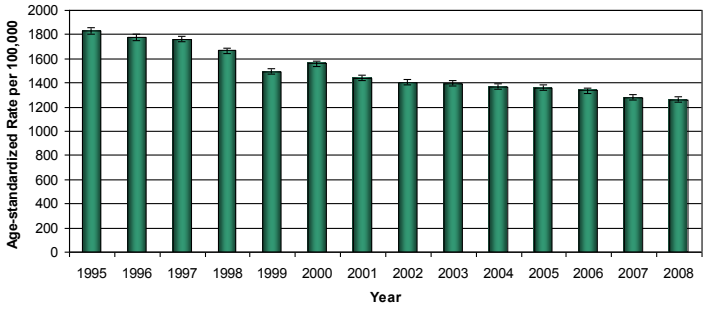


Fig: 6.36 Diseases of the Digestive System: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

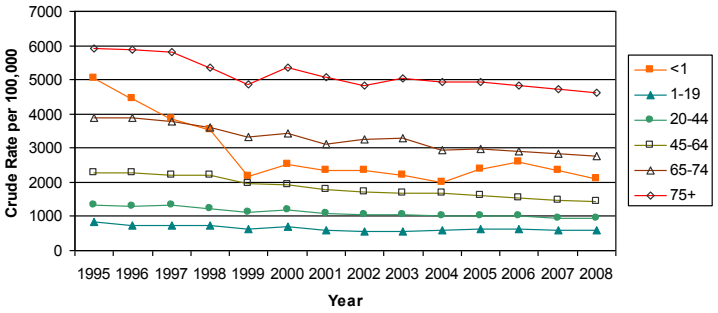
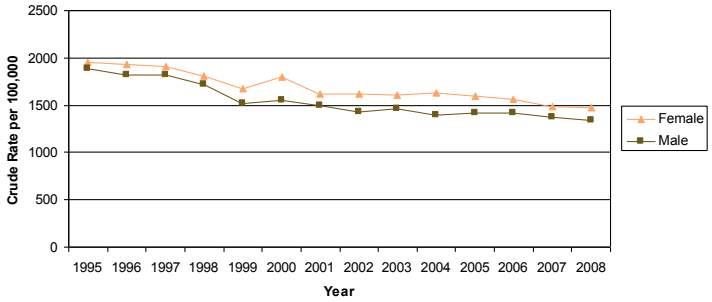


Fig: 6.37 Diseases of the Digestive System: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Genitourinary System: This ICD chapter includes diseases of the urinary system, genital organs and breasts. Hospital separation rates due to diseases of the genitourinary system decreased significantly from 1995 to 2008 in Saskatchewan, from 988.3 per 100,000 in 1995 to 568.7 per 100,000 in 2008 (Figure 6.38).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rate seen in those aged 75 years and older and the rate of this group was approximately one and a half times the next highest rate, the 65 to 74 year age group. The rates decreased in all age groups other than the less than one year old which displayed an increase (Figure 6.39).

In 2008, the age-specific hospital separation rates per 100,000 due to diseases of the genitourinary system were found for the following age groups:

Less than 1 year	915.6
1-19 years	160.2
20-44 years	470.6
45-64 years	744.9
65-74 years	1,250.2
75+ years	1,918.6

Sex-specific hospital separation rates decreased over the time period 1995 to 2008 (Figure 6.40). The rate was higher for females than for males for every year.

In 2008, the age-standardized hospital separation rate due to diseases of the genitourinary system was 568.7 per 100,000 in Saskatchewan. Rates for Cypress, Heartland, Keewatin Yatthé, Mamawetan Churchill River, Prairie North, Sun Country and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Prince Albert Parkland, Regina Qu'Appelle and Saskatoon were significantly lower.

Fig: 6.38 Diseases of the Genitourinary System: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

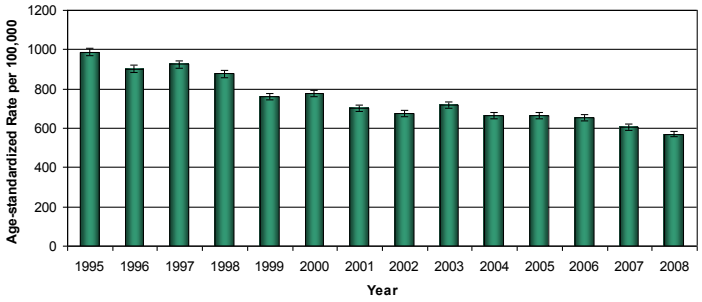


Fig: 6.39 Diseases of the Genitourinary System: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

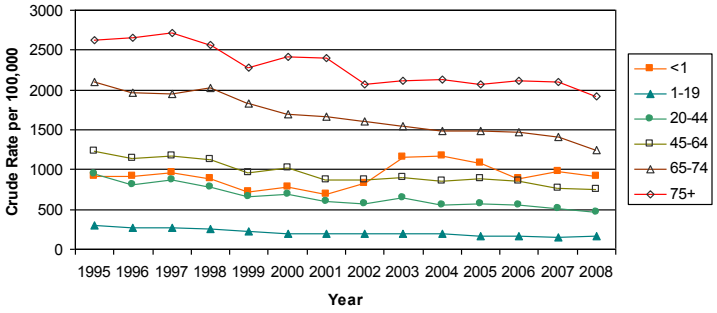
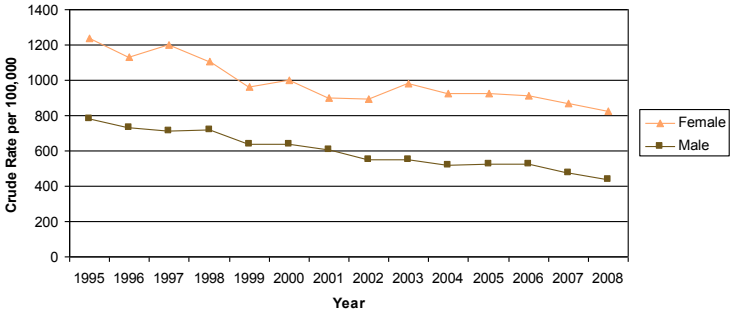


Fig: 6.40 Diseases of the Genitourinary System: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of Pregnancy, Childbirth, and the Puerperium: This ICD Chapter includes pregnancy, childbirth and conditions arising during six weeks post-partum (puerperium). Hospital separation rate dues to diseases of pregnancy, childbirth and the puerperium decreased slightly from 1995 to 2008, from 5,863.4 per 100,000 in 1995 to 5,144.5 per 100,000 in 2008 (Figure 6.41).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rates in the 20 to 29 year age group. Rates declined by 26.0 percent and 22.9 percent in the 10 to 19 and 20 to 29 year age groups, respectively. In contrast, the rate in the 30 to 39 year age group increased by 15.1 percent during the same time period, while the rate in the 40 to 49 year age group remained fairly stable. (Figure 6.42). Rates for women aged 50 to 59 years are not reported due to small numbers.

In 2008, the age-specific hospital separation rates per 100,000 due to pregnancy, childbirth and puerperium were found for the following age groups:

10-19 years	2,277.9
20-29 years	11,691.5
30-39 years	7,618.6
40-49 years	337.4

The annual crude rate for females in Saskatchewan decreased by 19.9 percent from 1995 to 2008 (Figure 6.43).

In 2008, the age-standardized hospital separation rate due to pregnancy, childbirth and the puerperium was 5,144.5 per 100,000. Rates for Athabasca Health Authority and Keewatin Yatthé, Mamawetan Churchill River, Prince Albert Parkland, and Prairie North Regional Health Authorities were significantly higher than the provincial rate and Cypress, Five Hills, Sunrise and Saskatoon Health Regions were significantly lower.

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Fig: 6.41 Pregnancy, Childbirth and the Puerperium: Age-standardized Rate of Hospital Separations among Females in Saskatchewan, 1995 - 2008

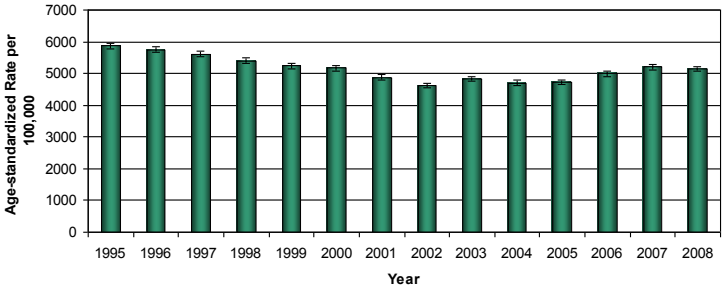


Fig: 6.42 Pregnancy, Childbirth and the Puerperium: Crude Rate of Hospital Separations among Females in Saskatchewan by Age Group, 1995 - 2008

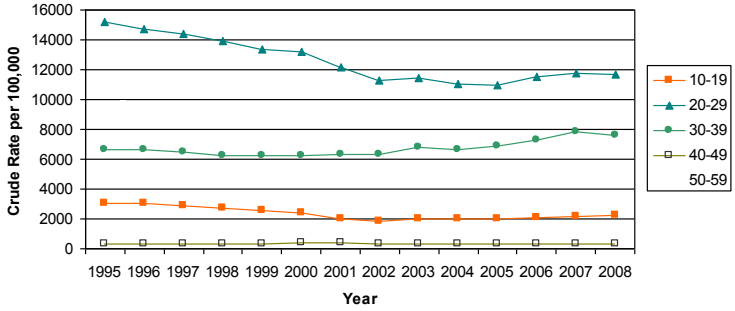
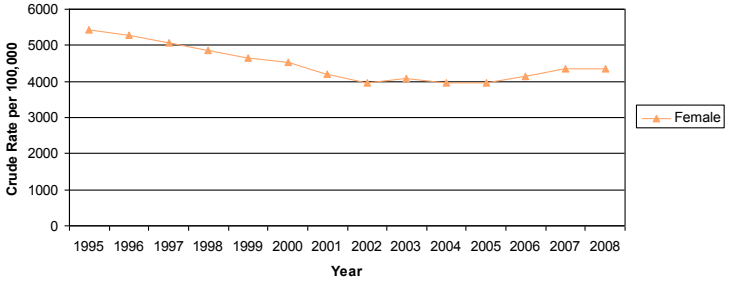


Fig: 6.43 Pregnancy, Childbirth and the Puerperium: Crude Rate of Hospital Separations among Females in Saskatchewan, 1995 - 2008



Diseases of the Skin and Subcutaneous Tissue: This ICD chapter includes diseases of the skin and subcutaneous tissue. Hospitalization rates due to of the skin and subcutaneous tissue decreased slightly, but significantly, from 1995 to 2008 in Saskatchewan, from 180.9 per 100,000 in 1995 to 166.2 per 100,000 in 2008 (Figure 6.44).

Hospital separations rates varied across age groups over the time period 1995-2008, with the highest rate in the less than one year and 75 and older age groups. The lowest rates were in the one to 19 years and the 20 to 44 year age groups. (Figure 6.45).

In 2008, the age-specific hospital rates per 100,000 due to diseases of the skin and subcutaneous tissue were found for the following age groups:

Less than 1 year	577.9
1-19 years	107.5
20-44 years	136.5
45-64 years	156.4
65-74 years	271.6
75+ years	526.6

Sex-specific hospital separation rates fluctuated over the time period 1995 to 2008 (Figure 6.46). The rate was slightly higher for males than for males in every year, except in 2001.

In 2008, the age-standardized hospital separation rate due to diseases of the skin and subcutaneous tissue was 166.2 per 100,000 in Saskatchewan. Rates for Keewatin Yatthé, Mamawetan Churchill River, and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Regina Qu'Appelle and Saskatoon were significantly lower.

Fig: 6.44 Diseases of the Skin and Subcutaneous Tissue: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

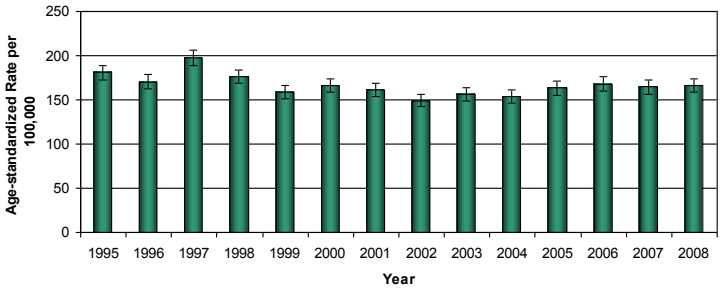


Fig: 6.45 Diseases of the Skin and Subcutaneous Tissue: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

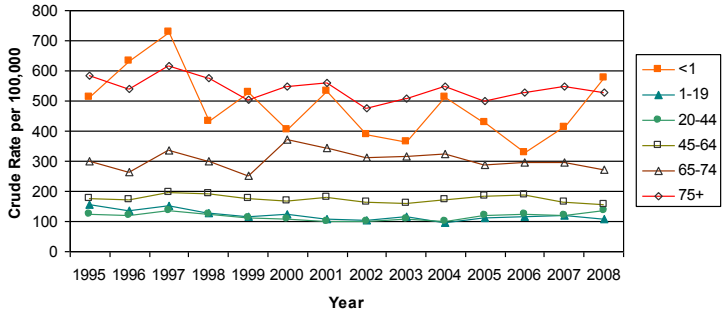
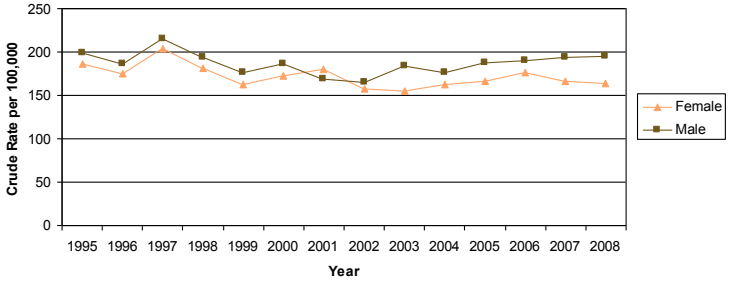


Fig: 6.46 Diseases of the Skin and Subcutaneous Tissue: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Diseases of the Musculoskeletal System: This ICD chapter includes the arthropathies, soft tissue disorders, and osteopathies. Hospitalization rates due to diseases of the musculoskeletal system and connective tissue decreased significantly from 1995 to 2008 in Saskatchewan, from 721.9 in 1995 to 483.0 per 100,000 in 2008 (Figure 6.47).

Hospital separation rates varied across age groups over the time period 1995-2008, with the highest rate in those aged 75 years and older. The age-specific rate of this age group was approximately 22 percent higher than the next highest rate which was the 65 to 74 year age group (Figure 6.48). Rates were not displayed for those under one years due to small numbers.

In 2008, the age-specific hospital rates per 100,000 due to diseases of the musculoskeletal system were found for the following age groups:

1-19 years	15.0
20-44 years	209.8
45-64 years	698.6
65-74 years	1,873.2
75+ years	2,414.5

Sex-specific hospital separation rates decreased over the time period 1995 to 2008 (Figure 6.49). The rates were higher for females than for males in every year.

In 2008, the age-standardized hospital separation rate due to diseases of the musculoskeletal system was 483.0/100,000 in Saskatchewan. Rates for Cypress, Sun Country and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Prairie North and Saskatoon were significantly lower.

Fig: 6.47 Diseases of the Musculoskeletal System & Connective Tissue: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

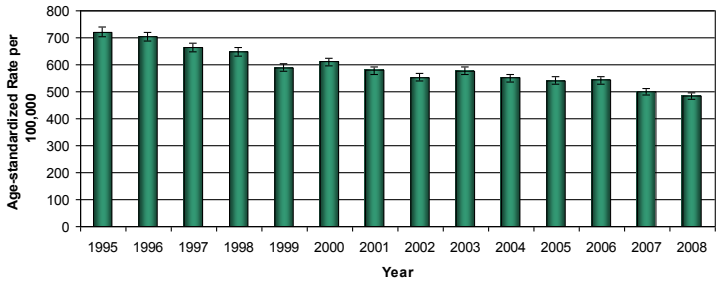


Fig: 6.48 Diseases of the Musculoskeletal System & Connective Tissue: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

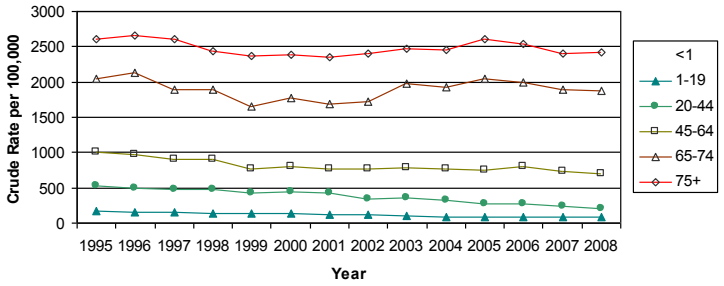
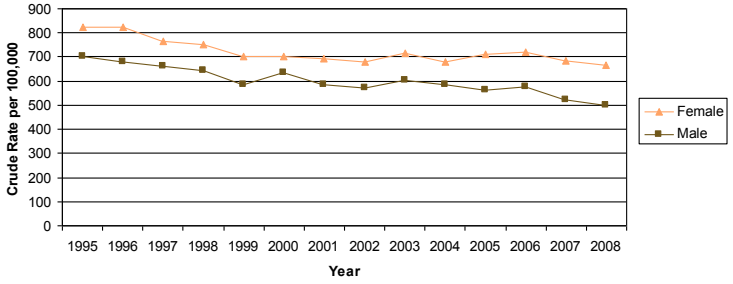


Fig: 6.49 Diseases of the Musculoskeletal System & Connective Tissue: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Congenital Anomalies: This ICD chapter includes congenital malformations and deformations, and chromosomal abnormalities. There appeared to be a significantly decreasing trend in hospitalization rates due to congenital anomalies from 1995 to 2008 in Saskatchewan, from 107.4 in 1995 to 74.7 per 100,000 in 2008 (Figure 6.50).

Hospital separation rates varied by age group over the time period 1995-2008, with the highest rate in the less than one age group, which was over 47 times the rate for the one to 19 year age group, which was over four times higher than the next two age groups, 20 to 44 years and 45 to 64 years (Figure 6.51 and 6.52). The remaining age groups were not displayed due to small numbers.

In 2008, the age-specific hospital separation rates due to congenital anomalies were found for the following age groups:

Less than 1 year	3166.9
1-19 years	67.8
20-44 years	16.2
45-64 years	16.8

Figure 6.51 displays age groups from birth to 19 years. Only the age groups between 1-64 years are displayed in Figure 6.52. Age groups for 65 years and over were not displayed due to small numbers.

Sex-specific hospital separation rates exhibited a decline over the time period 1995 to 2008 with some fluctuations (Figure 6.53). The rate was higher for males than for females for all the years.

In 2008, the age-standardized hospital separation rate due to congenital anomalies was 74.7/100,000 in Saskatchewan. Rates for the Five Hills Regional Health Authority was significantly lower than the provincial rate.

Fig: 6.50 Congenital Anomalies: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

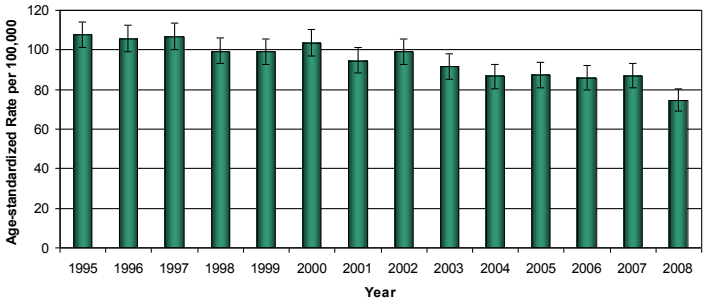


Fig: 6.51 Congenital Anomalies: Crude Rate of Hospital Separations among Children and Youth Aged 0 to 19 Years in Saskatchewan by Age Group, 1995 - 2008

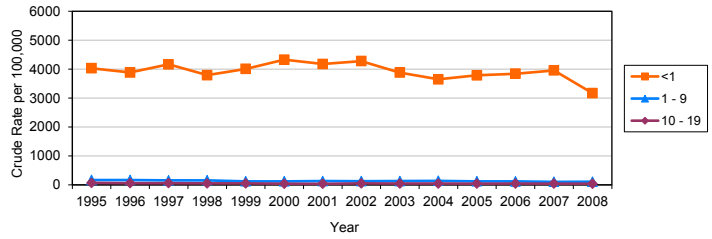


Fig: 6.52 Congenital Anomalies: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

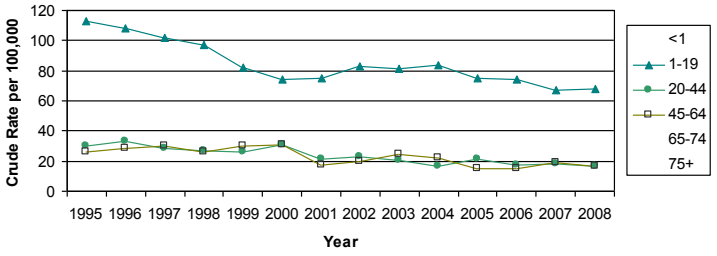
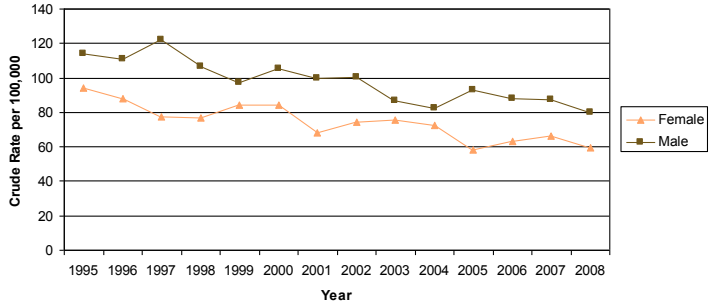


Fig: 6.53 Congenital Anomalies: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Certain Conditions Originating in the Perinatal Period: This ICD chapter includes birth trauma, complications of pregnancy, labour and delivery, and perinatal infections. Hospitalization rates due to certain conditions originating in the perinatal period decreased significantly from 1995 to 2008 in Saskatchewan, from 473.9 per 100,000 in 1995 to 331.6 per 100,000 in 2008 (Figure 6.54).

Hospital separation rates were displayed for the under one year of age group which decreased with some fluctuations from 1995 through 2008 (Figure 6.55). The remaining age groups had less than 20 separations per year for the time period 1995-2008.

In 2008, the age-specific hospital separation rate due to certain conditions originating in the perinatal period for the less than one year old group was 23,084.4 per 100,000.

Sex-specific separation rates decreased over the time period 1995 to 2008 (Figure 6.56). The rate was higher for females than for males in every year.

In 2008, the age-standardized hospital separation rate due to certain conditions originating in the perinatal period was 331.6/100,000 in Saskatchewan. Rates for Five Hills, Regina Qu'Appelle and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Cypress, Keewatin Yatthé and Saskatoon Health Regions were significantly lower.

Fig: 6.54 Certain Conditions Originating in the Perinatal Period: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

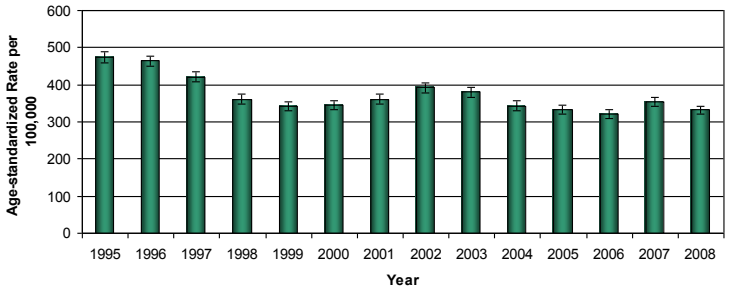


Fig: 6.55 Certain Conditions Originating in the Perinatal Period: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

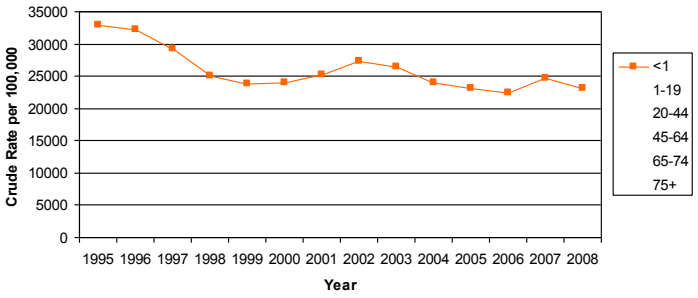
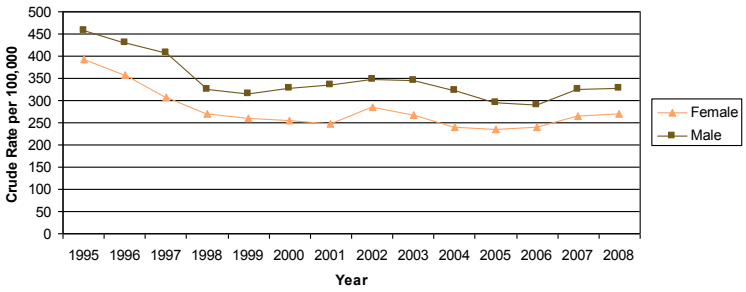


Fig: 6.56 Certain Conditions Originating in the Perinatal Period: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Ill-Defined Conditions: This ICD chapter includes symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified. Hospitalization rates due to symptoms, signs and ill-defined conditions decreased significantly from 1995 to 2008 in Saskatchewan, from 920.0 per 100,000 in 1995 to 692.7 per 100,000 in 2008 (Figure 6.57).

Hospital separation rates varied across age groups over the time period 1995-2008. Rates were highest in the less than one year and 75 or older age groups. The rates declined in all age groups, except the 75 or older age group which experienced a 7.4 percent increase. The less than one year age group experienced the greatest decline, with a decrease of 53.0 percent during this period (Figure 6.58).

In 2008, the age-specific hospital separation rates per 100,000 population due to ill-defined conditions were found for the following age groups:

Less than 1 year	1,831.1
1-19 years	349.3
20-44 years	392.0
45-64 years	683.3
65-74 years	1,653.4
75+ years	3,627.5

Sex-specific hospital separation rates decreased slightly over the time period 1995 to 2008 (Figure 6.59). The rates were higher for females than for males in every year.

In 2008, the age-standardized hospital separation rate due to ill-defined conditions was 692.7 per 100,000 in Saskatchewan. Rates for Cypress, Kelsey Trail, Keewatin Yatthé, Mamawetan Churchill River, Sun Country, and Sunrise Regional Health Authorities were significantly higher than the provincial rate and Five Hills, Prince Albert Parkland, Prairie North and Saskatoon were significantly lower.

Fig: 6.57 Symptoms, Signs and Ill-defined Conditions: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

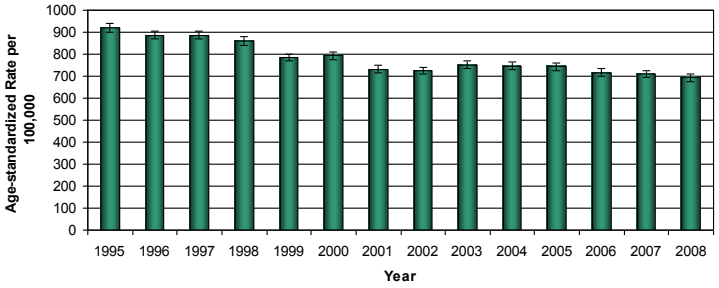


Fig: 6.58 Symptoms, Signs and Ill-defined Conditions: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

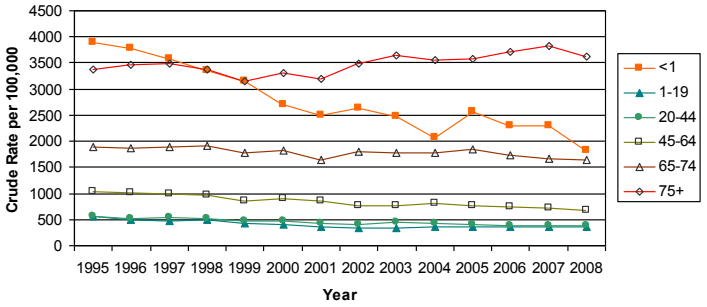
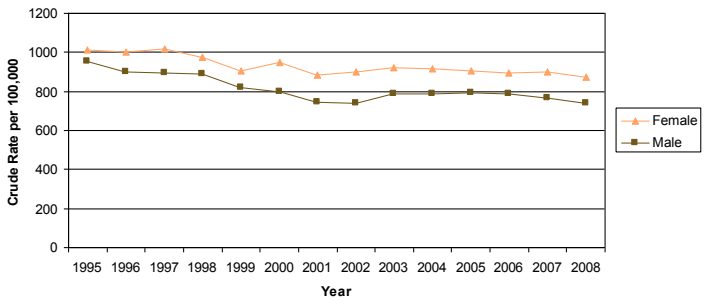


Fig: 6.59 Symptoms, Signs and Ill-defined Conditions: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



External Causes of Injury and Poisoning: This ICD chapter includes external causes of hospitalization including accidents, assaults, intentional self-harm, and complications of medical and surgical care. Hospital separation rate related to external causes of injury and poisoning decreased significantly from 1995 to 2008 in Saskatchewan, from 1,235.7 per 100,000 in 1995 to 893.7 per 100,000 in 2009 (Figure 6.60).

Hospital separation rates varied across age groups over the time period 1995-2009, with the rates slightly declining in all age groups. The highest hospitalization rate was seen for those aged 75 years and older and the age-specific mortality rate of this age group was almost two times the rate of the next highest rates, the 65 to 74 year age group (Figure 6.61).

In 2008, the age-specific hospital separation rates per 100,000 population related to external causes of injury and poisoning were found for the following age groups:

Less than 1 year	637.9
1-19 years	674.4
20-44 years	731.9
45-64 years	757.6
65-74 years	1,377.6
75+ years	3,540.6

Sex-specific hospital separation rates decreased over the time period 1995 to 2008 (Figure 6.62). The rate was higher in males than females for all years.

In 2008, the age-standardized hospital separation rate related to external causes of injury and poisoning was 893.7 per 100,000 in Saskatchewan. Rates for Athabasca Health Authority and Kelsey Trail, Keewatin Yatthé, Mamawetan Churchill River, Sun Country and Sunrise Health Regions' were significantly higher than the provincial rate and Saskatoon Health Region was significantly lower.

Fig: 6.60 Injury, Poisoning & Other Consequences of External Causes: Age-standardized Rate of Hospital Separations in Saskatchewan, 1995 - 2008

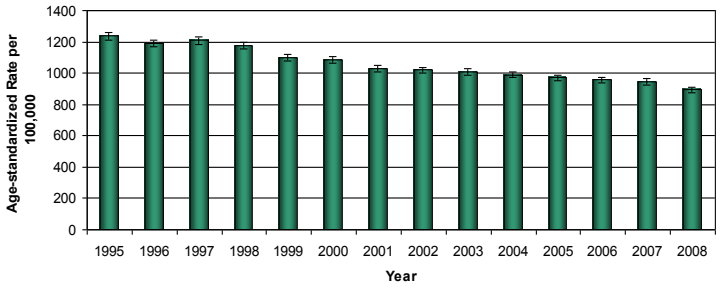


Fig: 6.61 Injury, Poisoning & Certain Other Consequences of External Causes: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008

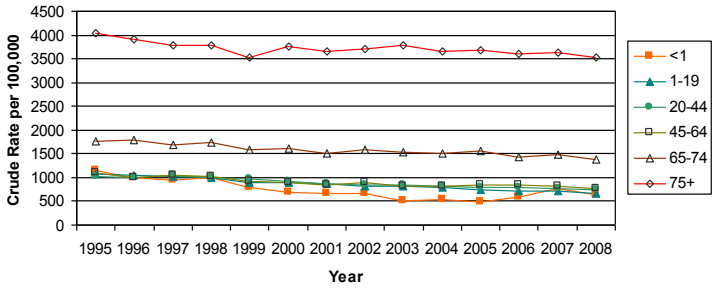
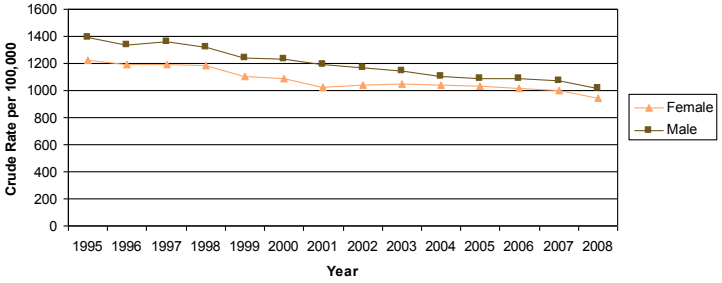


Fig: 6.62 Injury, Poisoning & Other Consequences of External Causes: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



Self-Reported Health

Self-rated health is used as a predictor of the overall health status of the population. The Canadian Community Health Survey (CCHS) asks respondents to rate his/her health as "excellent, very good, good, fair or poor".

The CCHS self-reported health indicators were assessed; good, very good and excellent health, very good and excellent health, and fair and poor health. The indicator descriptions and detailed findings are presented on page 25 with Figures 6.63 - 6.65 for good, very good and excellent health, page 26 with Figures 6.66 - 6.68 for very good and excellent health and page 27 with Figures 6.69 - 6.71 for fair and poor health.

The key findings are as follows:

In 2007/08, the percentages of Saskatchewan residents rating their health as "good, very good or excellent", "very good or excellent" and "fair or poor" were similar to that found for Canada, and all indicators remained fairly constant over the survey time period from 2000/2001 to 2007/2008 (Figure 6.63, 6.64 and 6.65).

The age-specific percentages for the three age groups, as well as, the detailed age analysis for "good, very good and excellent health" indicated that as age increases, ratings decreased for good, very good and excellent health and a corresponding increase in fair and poor health was seen (Figure 6.64, 6.67, 6.70 and Table 6.1). The drop in ratings began at age 40-49 years; however it should be noted that over 30 percent of seniors indicated that their health was "very good or excellent" (Figure 6.64).

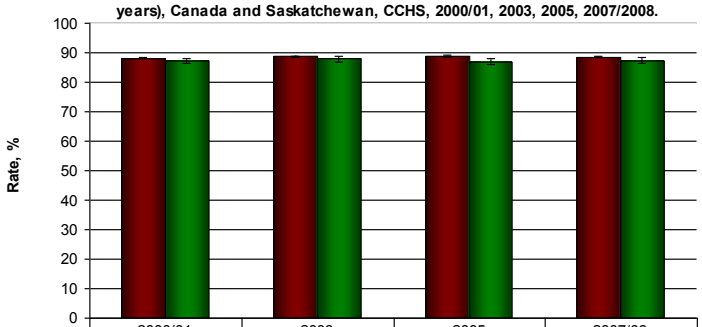
For all self rated health status indicators, male and female percentages were similar and stayed relatively constant over the survey period (Figure 6.65, 6.68 and 6.71).

Table 6-1: Age-specific percentages for self-rated health status, 2007/08

Age (years)	Good, Very Good and Excellent Health (%)	Very Good and Excellent Health (%)	Fair and Poor Health (%)
20-44	94.3	65.7	5.7
45-64	85.7	51.8	14.2
65+	70.6	30.4	29.3

Self-rated good, very good and excellent health: From 2000/01 to 2007/08, the proportion of CCHS respondents (12 years and older) who reported having good, very good or excellent health remained fairly constant for Canada and Saskatchewan. The Saskatchewan proportion remained around 87 percent and the Canadian proportion remained around 88 percent, with the difference between Saskatchewan and Canada being significant only for 2005 (Figure 6.63).

Fig: 6.63 Prevalence of self-rated good, very good and excellent health in all ages (12+ years), Canada and Saskatchewan, CCHS, 2000/01, 2003, 2005, 2007/2008.



	2000/01	2003	2005	2007/08
Canada	88.1	88.7	88.8	88.5
Saskatchewan	87.2	87.9	86.9	87.2

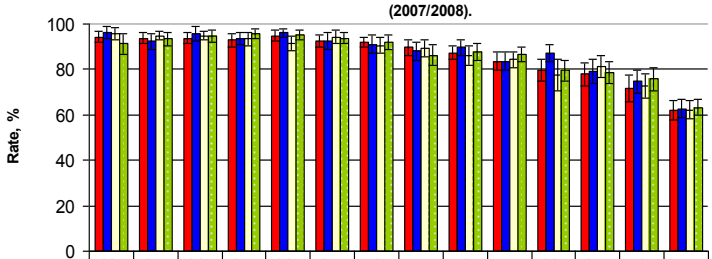
CCHS year

Self-reported proportions varied across age groups over the survey time period. The proportions remained relatively stable up to and including the age group 35-39 years and then began to decline with advancing age, with proportions falling to below 80 percent in people aged 60 years and older (Figure 6.64).

In 2007/08, the age-specific percentages of Saskatchewan residents that reported good, very good or excellent health were found for the following age groups:

30-34 years	95.1%
35-39 years	93.8%
40-44 years	91.9%
45-49 years	86.3%
50-54 years	87.6%
55-59 years	86.7%
60-64 years	79.6%
65-69 years	78.7%
70-74 years	75.7%
75+ years	63.3%

Fig: 6.64 Prevalence of self-rated good, very good or excellent health in all ages (12+), Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



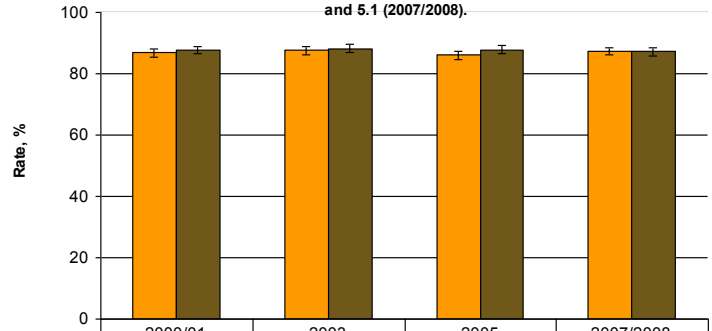
	12-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
2000/01	94.3	93.8	93.8	92.9	94.8	92.4	92.0	89.6	87.4	83.6	79.5	77.8	71.5	62.1
2003	96.1	92.3	95.7	93.7	96.1	92.3	91.0	88.0	89.6	83.7	87.0	79.0	74.6	62.8
2005	95.7	94.8	94.9	93.3	91.5	94.2	90.5	89.2	86.1	84.3	77.4	81.3	72.6	62.2
2007/2008	91.3	93.4	94.6	95.6	95.1	93.8	91.9	86.3	87.6	86.7	79.6	78.7	75.7	63.3

Age group years by Survey years

Sex-specific proportions of Saskatchewan residents remained relatively similar and stable for both sexes (Figure 6.65).

In 2007/08, the proportion was 87.2 percent in Saskatchewan. Most Regional Health Authority percentages did not differ significantly from the province, with the exception of Sunrise Health Region which was lower.

Fig: 6.65 Prevalence of self-rated good, very good and excellent health in 12+ year olds, by Sex, Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



	2000/01	2003	2005	2007/2008
Female	86.8	87.5	86.1	87.3
Male	87.7	88.2	87.8	87.2

Sex by Year(s)

Self-rated very good and excellent health: As expected, the proportion of very good or excellent self-reported health (two combined categories) was significantly lower than those seen for self-reported good, very good or excellent health (three combined categories).

From 2000/01 to 2007/08, the proportion of CCHS respondents (12 years and older) who reported having very good or excellent health declined slightly. The Saskatchewan rate was significantly lower than the Canadian proportion in 2000/01, 2005 and 2007/08 (Figure 6.66). The Saskatchewan proportion declined from 57.0 to 55.3 percent but the decline was not statistically significant, while the Canadian proportion decreased significantly from 61.5 to 59.2 percent.

Self-reported proportions varied across age groups over the survey time period and the proportions declined significantly with advancing age (Figure 6.67).

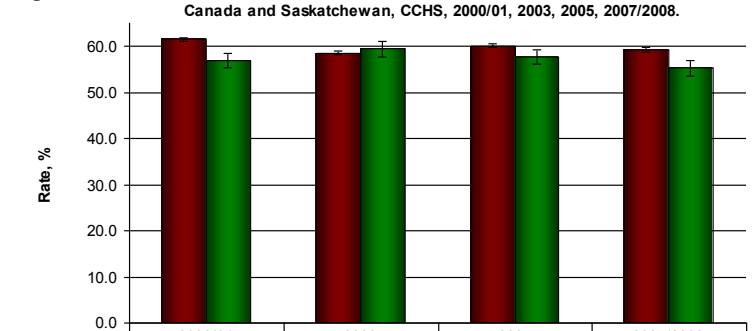
In 2007/08, the age-specific percentages of Saskatchewan residents that reported very good or excellent health were found for the following age groups:

20-44 years	65.7%
45-64 years	51.8%
65+ years	30.4%

Sex-specific proportions remained relatively similar for both sexes (Figure 6.68). The proportions tended to decline from 2003 to 2007/08, but the difference was not statistically significant.

In 2007/08, the self-reported proportions of very good or excellent health was 55.3 percent in Saskatchewan. Most Regional Health Authority percentages did not differ significantly from the province with the exception of Kelsey Trail and the combined northern region being lower and Heartland being higher.

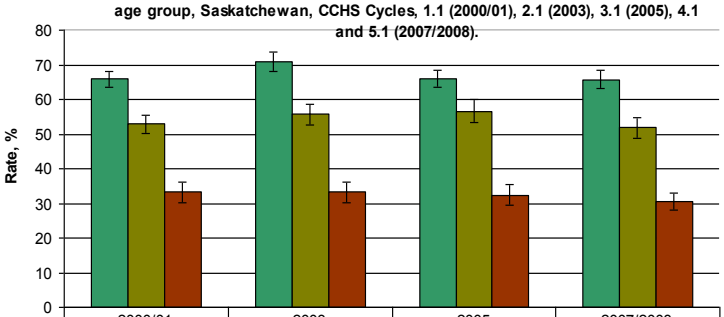
Fig: 6.66 Prevalence of self-rated very good and excellent health in all ages (12+ years), Canada and Saskatchewan, CCHS, 2000/01, 2003, 2005, 2007/2008.



	2000/01	2003	2005	2007/2008
Canada	61.5	58.6	60.2	59.2
Saskatchewan	57.0	59.5	57.8	55.3

CCHS year

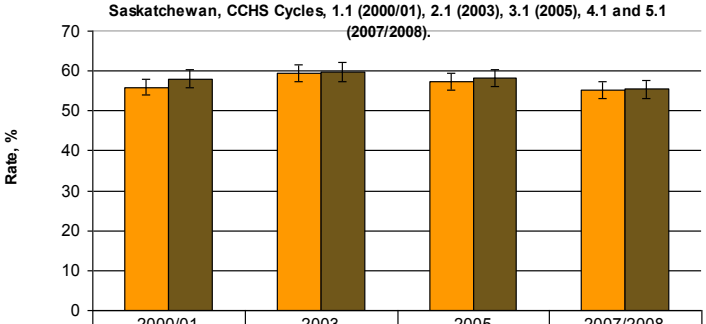
Fig: 6.67 Prevalence of self-rated very good and excellent health in 12+ year olds, by age group, Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



	2000/01	2003	2005	2007/2008
20-44	65.9	70.8	66.0	65.7
45-64	52.8	55.7	56.7	51.8
65+	33.3	33.2	32.4	30.4

Age group by Year(s)

Fig: 6.68 Prevalence of self-rated very good and excellent health in 12+ olds, by Sex, Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



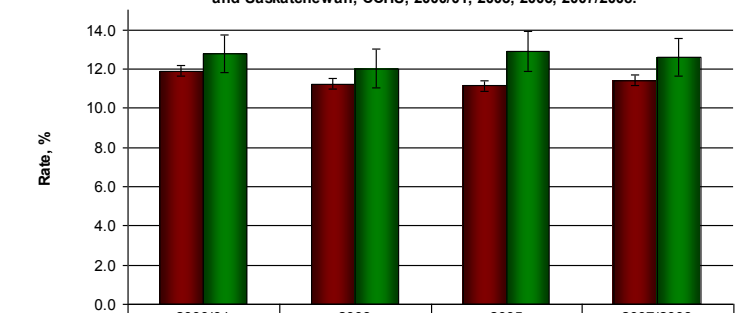
	2000/01	2003	2005	2007/2008
Female	55.9	59.4	57.4	55.2
Male	58.1	59.6	58.3	55.4

Sex by Year(s)

Self-rated fair and poor health: As expected the proportions of fair or poor self-reported health were significantly lower than those seen for self-reported good, very good or excellent health.

From 2000/01 to 2007/08, the proportion of CCHS respondents (12 years and older) who reported having fair or poor health remained fairly constant for Canada and Saskatchewan. The proportion for residents of Saskatchewan remained around 12 percent and the Canadian proportion remained around 11 percent, with the difference between Saskatchewan and Canada being significant only for 2005 (Figure 6.69).

Fig: 6.69 Prevalence of self-rated fair and poor health status in 12+ year olds), Canada and Saskatchewan, CCHS, 2000/01, 2003, 2005, 2007/2008.



	2000/01	2003	2005	2007/2008
Canada	11.9	11.2	11.1	11.4
Saskatchewan	12.8	12.0	12.9	12.6

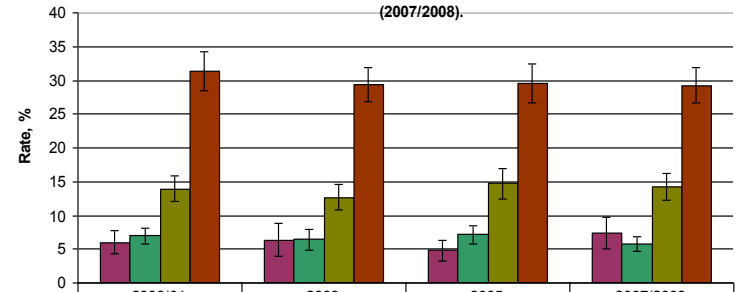
CCHS year

Self-reported proportions varied across age groups over the survey time period and increased significantly as age groups advanced (Figure 6.70).

In 2007/08, the age-specific percentages of Saskatchewan residents that reported fair or poor health were found for the following age groups:

12-19 years	7.4%
20-44 years	5.7%
45-64 years	14.2%
65+ years	29.3%

Fig: 6.70 Prevalence of self-rated fair or poor health in 12+ year olds, by age group, Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



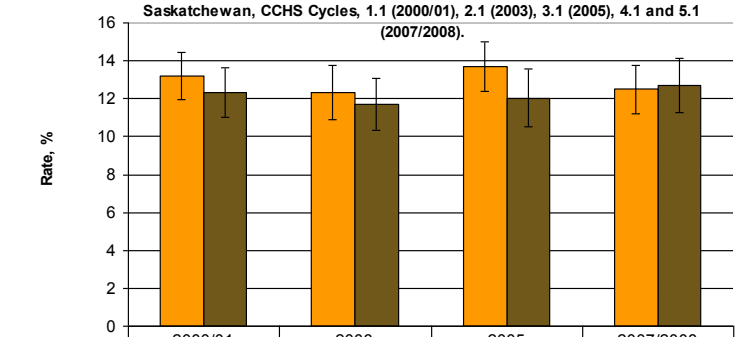
	2000/01	2003	2005	2007/2008
12-19	6.0	6.4	4.9	7.4
20-44	6.9	6.4	7.1	5.7
45-64	13.9	12.7	14.7	14.2
65+	31.4	29.3	29.6	29.3

Age group by Year(s)

Sex-specific proportions relatively stable for both sexes (Figure 6.71). Females had higher proportions from 2000/01 to 2005; however, the difference was not significant.

In 2007/08, the self-reported proportion for fair or poor health was 12.6 percent in Saskatchewan. Most Regional Health Authority percentages did not differ significantly from the province with the exception of Sunrise Health Region being lower.

Fig: 6.71 Prevalence of self-rated fair or poor health in 12+ year olds, by Sex, Saskatchewan, CCHS Cycles, 1.1 (2000/01), 2.1 (2003), 3.1 (2005), 4.1 and 5.1 (2007/2008).



	2000/01	2003	2005	2007/2008
Female	13.2	12.3	13.7	12.5
Male	12.3	11.7	12.0	12.7

Sex by Year(s)

Definitions

Health-adjusted life expectancy (HALE) - Health-adjusted life expectancy (HALE) is the number of years in full health that an individual can expect to live given the current morbidity and mortality conditions and is a summary measure of population health that combines mortality and morbidity data into a single index (Statistics Canada, 2012).

International Classification of Diseases (ICD) - The International Classification of Diseases (ICD) is the foundation for the identification of health trends and statistics globally. It sets the international standard for defining and reporting diseases and health conditions by defining the universe of diseases, disorders, injuries and other related health conditions (World Health Organization, 2013).

Injury - A bodily lesion resulting from acute overexposure to energy (this can be mechanical, thermal, electrical, chemical or radiant) interacting with the body in amounts or rates that exceed the threshold of physiological tolerance. Injuries may be unintentional (i.e., not purposely inflicted, either by the patient or anyone else) or intentional injury (i.e., purposefully caused). In some cases an injury results from an insufficiency of any of the vital elements (e.g., oxygen, warmth). Acute poisonings and toxic effects, including overdoses of substances and wrong substances given or taken in error are included. Psychological harm and assault are excluded. Note that the scope of this definition is in accordance with the scope of the ICD-9 Supplementary Classification of External Causes of Injury and Poisoning and ICD-10 CA Chapter XX. (Public Health Agency of Canada 2005).

Life Expectancy - Life expectancy is an estimate of the number of years a person would be expected to live, either from birth or from age 65 years, based on age- and sex-specific mortality rates for a given period, under the assumption that these mortality rates would stay constant over subsequent years (St-Arnaud, J, et al, 2005).

Morbidity - Illness.

Mortality - Death.

Potential Years of Life Lost (PYLL) - The numbers of years of life lost when a person dies prematurely from any cause, typically, before age 75. The PYLL rate for a given period is the ratio of the total years of life lost before age 75 to the total population under 75 and is usually expressed per 1,000 population.

Rates - The rate is the proportion of a group affected over a period of time (such as a year). It expresses the number of hospital separations or deaths, usually per 100,000 population. Hospital separation rates are calculated using Saskatchewan Ministry of Health Covered Population in the denominator whereas Statistics Canada's population estimates are used for mortality rate calculations. To compare rates in populations or of the same population in different years, age standardization is applied using the 1991 census population of Canada as a standard population.

- The crude rate is ratio of the total number of hospital separations or deaths for selected causes of injury relative to the total population and is usually expressed per 100,000 population.
- The age-specific rate is the ratio of the total number of hospital separations or deaths for selected causes of injury in a given age group to the total population in that age group and is usually expressed per 100,000 population.
- The age-standardized rate is the number of hospital separations or deaths for selected causes of injury per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian census population. It is defined as the weighted average of the age-specific rates where the weights are taken from the standard population. Confidence intervals for the age-standardized rates were calculated using the gamma method. (See: Fay PM and Feuer EJ. Confidence intervals for directly standardized rates - A method based on gamma distribution. Stat Med 1997;16:791-801).

MORBIDITY: ICD CHAPTER - DISEASES OF THE NERVOUS SYSTEM & SENSE ORGANS BY AGE AND SEX

CHART 6-40

A. Definitions:

Number of hospitalizations during a given calendar year per 100,000 population. Annual morbidity indicators include: 1) crude rate, 2) sex- and age-specific rate and 3) age-standardized morbidity rate. Age-standardized rates represent the rate that would occur if the population had the same age distribution as the 1991 Canadian population. ICD codes: ICD9 320-389/ ICD10 G00-H95

B. Significance/Use:

These numbers represent the number of individuals hospitalized in a year. Morbidity data are useful in planning health services and programs, setting objectives and targets and comparing disease status over person, place and time.

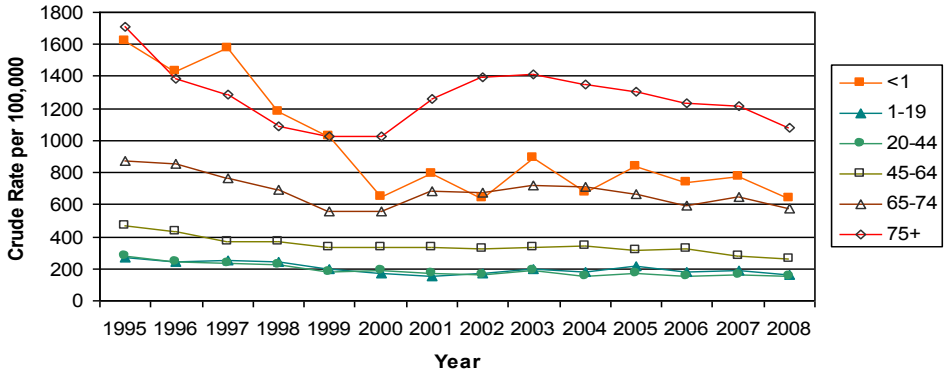
C. Limitations:

Hospitalizations do not reflect disease severity. The analyses are based only on the underlying cause of hospitalization but there may be more contributing causes. Differences in reporting may affect comparisons. Saskatchewan residents who were hospitalized outside the province are not included.

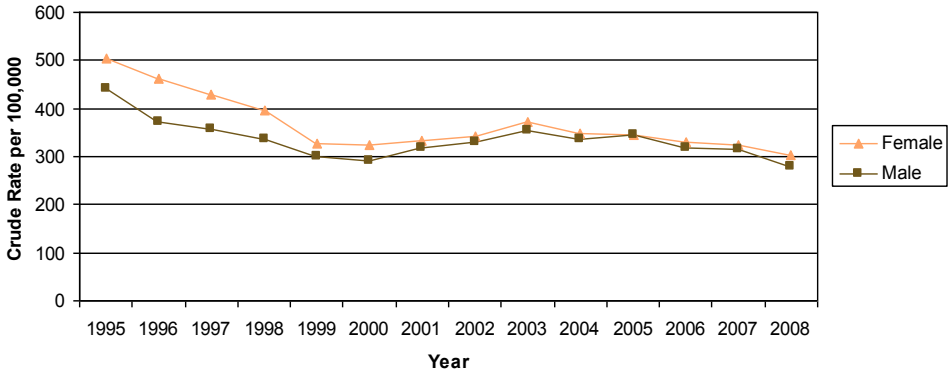
D. Source:

SK Ministry of Health, Year-end hospital files

Diseases of the Nervous System & Sense Organs: Crude Rate of Hospital Separations in Saskatchewan by Age Group, 1995 - 2008



Diseases of the Nervous System & Sense Organs: Crude Rate of Hospital Separations in Saskatchewan by Sex, 1995 - 2008



SUMMARY OF FINDINGS:

The age-specific hospital separation rates due to diseases of the nervous system and sense organs were highest for the 75 years and older and under one year age groups.

Sex-specific rates decreased for both males and females over the time period 1995 to 2008 and were higher for females compared to males.

- The sex-specific rate is the ratio of the total number of hospital separations or deaths for selected causes of injury for a given sex to the total population of that sex and is usually expressed per 100,000 population.
- The age-sex specific rate is the ratio of the total number of hospital separations or deaths for selected causes of injury in a given age-sex group to the total population of the age-sex group and is usually expressed per 100,000 population.

Data Sources

Canadian Community Health Survey (CCHS), Statistics Canada

Saskatchewan Ministry of Health Vital Statistics files.

Saskatchewan Ministry of Health year-end hospital files (included both inpatient and day procedure records)

Statistics Canada CANSIM tables (Population and Demography). CANSIM Population estimates were used from Statistics Canada for 1996 to 2009.

References

Health Canada. Healthy Canadian - A Federal Report on Comparable Health Indicators 2008. Ottawa: Health Canada; 2009.

St-Arnaud J, Beaudet MP, Tully P. Life expectancy. Health reports, Statistics Canada, Canadian Centre for Health Information; 2005; 17(1): 43-7.

Statistics Canada, Health-adjusted life expectancy, by sex. (2012) Retrieved 20130704, from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/hlth67-eng.htm

Association of Public Health Epidemiologist of Ontario (APHEO), Potential Years of Life Lost (75) (2006) Retrieved 20130704, from http://www.apheo.ca/index.php?pid=90

World Health Organization, International Classification of Diseases (ICD) Information Sheet. (2013) Retrieved 20130704, from http://www.who.int/classifications/icd/factsheet/en/index.html