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Hormone Replacement Therapy: An Analysis Focusing on Drug Claims by Female Seniors, 2000 to 2007

Introduction

Estrogen-containing medications were first approved by the United States Food and Drug Administration in 1941.¹ Estrogen-only hormone replacement therapy (also referred to as unopposed HRT) was widely used to treat menopause symptoms until the mid-1970s, when new studies emerged linking therapy to an increased risk of endometrial cancer.^{2,3} HRT use declined until the early 1980s, at which time progestin was added to estrogen therapy (known as combination HRT) to reduce endometrial cancer risk in women who had not had a hysterectomy. With the introduction of combination therapy, HRT use again increased, exceeding previous highs of the mid-1970s.⁴⁻⁶

New evidence on HRT benefits and risks continued to emerge throughout the 1990s and 2000s, contributing to divergent usage patterns. An increase in use persisted throughout the 1990s following the publication of studies and guidelines on HRT's benefit in reducing the risk of coronary heart disease and hip fractures.^{7,8} Later in the decade, new studies reported on HRT's lack of benefit for the secondary prevention of coronary heart disease and its linkage to an increased risk of breast cancer.⁹⁻¹⁴ In the early 2000s HRT use began to decline, following publication of the 2002 Women's Health Initiative (WHI) study. This study concluded that overall health risks exceeded benefits from the use of combination HRT among healthy, post-menopausal women and that this regimen not be used for primary prevention of coronary heart disease.¹⁵ A later WHI study looking at estrogen-only HRT concluded that there was no overall benefit to this regimen and that it not be recommended for chronic disease prevention in post-menopausal women.¹⁶

The WHI study results prompted regulatory bodies and professional associations to revise safety information and practice guidelines regarding HRT prescribing, shifting from cardiovascular disease prevention to therapeutic use of HRT.¹⁶⁻²³ In Canada, HRT prescribing is addressed in clinical practice guidelines of the Society of Obstetricians and Gynaecologists of Canada (SOGC) from the *Canadian Consensus Conference on Menopause, 2006 Update*²⁰ and the *Canadian Consensus Conference on Osteoporosis, 2006 Update*.²¹ The menopause guidelines recommend that the primary indication for HRT be to manage moderate to severe menopause symptoms, and that it be prescribed

Analysis in Brief

Taking health information further

at the lowest effective dose and for the appropriate duration to achieve the treatment goals, considering the potential risks and benefits to the patient. The osteoporosis guidelines recommend that patient risks be weighed against the benefits if HRT is being used solely for fracture prevention.

In September 2007, CIHI released an analysis that showed oral conjugated estrogens, commonly part of HRT regimens, were one of the fastest-declining drug classes considered to be potentially inappropriate to prescribe to women over the age of 65 (hereafter referred to as "seniors") based on the 2003 Beers criteria.²⁴ The following analysis examines trends in HRT use in female seniors in five Canadian provinces from April 1, 2000, to March 31, 2007. The study period begins as new evidence on HRT risks was starting to emerge and follows trends as additional studies were published and practice guidelines were updated.

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Please note that the analyses and conclusions in this document do not necessarily reflect those of the individuals or organizations mentioned above.

Methods

Claims Data Source

The drug claims data used in this analysis come from the National Prescription Drug Utilization Information System (NPDUIS) database, as submitted by the Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia provincial public drug programs. The NPDUIS database houses pan-Canadian information related to public program formularies, drug claims, policies and population statistics. It was designed to provide information that supports accurate, timely and comparative analytic and reporting requirements for the establishment of sound pharmaceutical policies and the effective management of Canada's public drug benefit programs.

The NPDUIS database includes:

- Claims accepted by public drug programs, either for reimbursement or toward a deductible. Claims are included regardless of whether or not the patient actually used the drugs.

The NPDUIS database does not include information regarding:

- Prescriptions that were written but never dispensed;
- Prescriptions that were dispensed but for which the associated drug costs were not submitted to, or not accepted by, the public drug programs; or
- Diagnosis or condition for which prescriptions were written.

Data Comparability

Age Standardization:

Provincial rates were age-standardized using a direct method of standardization based on the October 1, 2006, Canadian female senior population. The age groups used for standardization were 65 to 74, 75 to 84 and 85 years and older.ⁱ

Drug Plan Comparison:

Although public drug coverage is available to seniors in all five provinces included in the analysis, each of their drug plans is designed differently. These differences may impact drug utilization within the plans and, in turn, the claims submitted to the NPDUIS database. One main difference is that seniors in Manitoba and Saskatchewan are covered under universal drug plans, offered to residents of all ages, whereas Alberta, New Brunswick and Nova Scotia all have drug plans designed specifically for seniors. There are also other differences, such as how much a senior is required to pay for drugs and how

i. Population data come from Statistics Canada, Demography Division, Special Tabulation, June 2007.²⁵ The population estimates for 2000–2001 to 2002–2003 are considered final, while interim population estimates were used for 2003–2004 to 2006–2007.

this money is collected (for example, through premiums, deductibles or co-payments). Seniors not covered by the publicly funded drug plan may have a private drug plan or pay out of pocket.

Common to all five provinces, seniors covered by provincial workers' compensation boards or federal drug programs are not eligible for provincial coverage. Federal drug programs include those delivered by:

- Canadian Forces
- Correctional Service of Canada
- First Nations and Inuit Health Branch
- Health Canada
- Royal Canadian Mounted Police
- Veterans Affairs Canada

Further information about public drug programs in Canada can be found in the NPDUIS Plan Information Document, available at http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=GR_1302_E.

Formulary Comparison:

Differences in the coverage of drugs on provincial formularies can lead to differences in drug utilization, and are identified to provide context when conducting interprovincial comparisons. The benefit status of HRT drugs is quite similar in the five drug programs, with few exceptions. The most noticeable difference in formulary coverage was related to transdermal HRT products (that is, patches and gels). These products were listed as full benefits in Alberta; were restricted to patients who were intolerant to oral HRT products in Saskatchewan, Manitoba and Nova Scotia; and were listed as both full benefits and restricted benefits in New Brunswick, depending on the product. Because the use of these products was relatively low (only 14.2% of HRT users had claims for transdermal products) it was concluded that differences in formulary coverage had little impact on HRT use, as a whole, in the five drug programs.

Drugs of Interest

HRT products were identified by the drug identification number (DIN) assigned by Health Canada, and the following World Health Organization (WHO) Anatomical Therapeutic Chemical (ATC) classification codes: G03C—Estrogens, G03D—Progestogens and G03F—Estrogens and Progestogens in Combination. The term “progestogens” refers to a class of products that includes both progesterones and progestins.

The HRT products included in the analysis were oral and transdermal preparations indicated for the management of a broad range of menopause symptoms, as well as for the prevention of osteoporosis. Progestogen products were only included if they were used in combination with an estrogen product.

Definitions

1. “HRT users” refers to seniors who claimed a hormone replacement therapy product at least once during a given year. HRT users are further categorized as either “Combination HRT users” or “Estrogen-only HRT users” as defined below.
2. “Combination HRT users” refers to seniors who either claimed an estrogen product and a progestogen product, or claimed a product containing a combination of estrogen and progestogen, at least once in a given year.
3. “Estrogen-only HRT users” refers to seniors who claimed an estrogen product at least once in a given year, without claiming either a progestogen product or a product containing a combination of estrogen and progestogen in that same year.

Limitations

Since the NPDUIS database does not contain information regarding diagnosis or condition for which prescriptions were written, it is not known whether the HRT claims were related to the treatment of menopausal symptoms, to prevent osteoporosis or for another indication.

By focusing on seniors, this analysis examines only a small proportion of HRT use in Canada. While Canadian claims-level data for HRT use in females aged less than 65 years was unavailable for this study, a previous study looking at drug recommendations for HRT, made during Canadian women’s visits to their physicians’ offices, estimated that only a quarter of women for whom HRT was recommended were over the age of 60, and less than 5% were over the age of 70.²⁶

The ability to examine duration of therapy and long-term use was limited by the time horizon of the data (2000–2001 to 2006–2007) and the lack of consensus on the definition of long-term use. Current guidelines generally recommend shorter durations of HRT therapy, especially for combination regimens. Though there was no single definition of long-term HRT therapy, most references consider use beyond four to five years as long term.²⁷ Because this analysis focused on HRT use by seniors, the ability to measure treatment duration was further limited, as duration of HRT use by patients prior to turning 65 is unknown.

The lack of information on dosing instructions (for example, take two tablets, twice daily) and dispensed quantity units (for example, tablets or milligrams) presented challenges in examining dosage trends. To address these issues, the analysis of dose (Figure 6) was restricted to oral conjugated estrogens, due to a higher consistency in the reporting of dispensed units and in dosing (typically, oral conjugated estrogen tablets for treating menopause symptoms are taken once daily). Oral conjugated estrogens also had the highest rate of use among HRT products, accounting for 75.7% of all female seniors with HRT claims in 2006–2007. Other studies examining drug quantities have limited their analysis to oral-solid dosage forms (for example, tablets), excluding products, like liquids or creams, which are known to have inconsistently reported quantity units.^{28, 29}

Profile of Female Seniors With Drug Claims

In 2006–2007, there were 196,613 female seniors living in Alberta, 91,459 in Manitoba, 83,177 in Saskatchewan, 60,940 living in New Brunswick and 77,340 living in Nova Scotia.

The proportion of female seniors who had drug claims accepted by the public drug programs in these provinces varied from 63.7% in New Brunswick to 92.8% in Manitoba. The lower percentages in New Brunswick and Nova Scotia may be related to plan design. Seniors not covered by the publicly funded drug plan may have a private drug plan or pay out of pocket. These proportions are only meant to reflect the relative size of the claimant populations, and should not be considered as measures of the extent of drug coverage in these provinces. It should be noted that the total population figures include seniors who are not eligible for provincial coverage, such as those covered under federal drug plans. It should also be noted that whereas total population figures are meant to reflect the population at a single point in time, claimant population figures reflect the number of people who made claims throughout a given year.

There is variation in the age distribution of female senior claimant populations of the five provinces. Saskatchewan has the highest proportion of claimants over the age of 85, at 21.7%, while Alberta has the smallest proportion of claimants over the age of 85, at 14.1% (see Appendix B).

Analysis

Overview of HRT Claim Trends

The following analysis expands on CIHI's September 2007 analysis, which showed oral conjugated estrogens, commonly part of HRT regimens, were one of the fastest-declining drug classes considered to be potentially inappropriate to prescribe to women over the age of 65 (hereafter referred to as "seniors") based on the 2003 Beers criteria.²⁴ The study period begins as new evidence on HRT risks was starting to emerge and follows trends as additional studies were published and practice guidelines were updated.

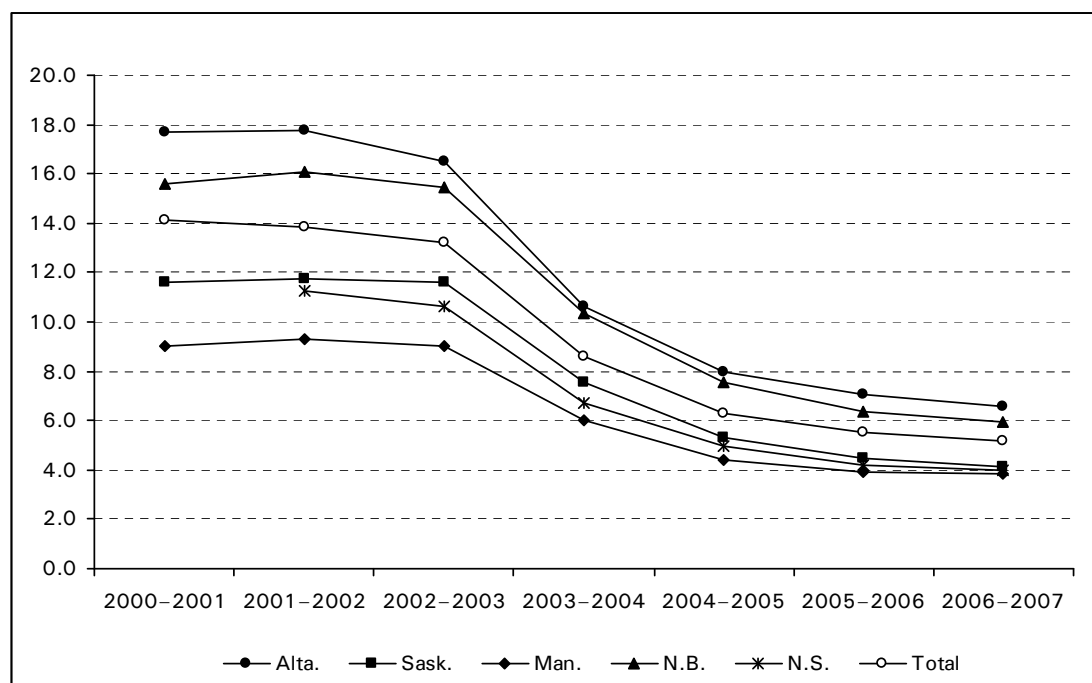
Following an increase in all four provinces for which data were availableⁱⁱ between 2000–2001 and 2001–2002, the rate of HRT use declined in all five provinces (Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia) between 2001–2002 and 2006–2007 (Figure 1). For the remainder of this analysis, the six years between 2001–2002 and 2006–2007 will be referred to as the study period.

ii. Nova Scotia data are not available for 2000–2001.

The number of HRT users declined at an average rate of 17.0% per year during the study period. The highest average annual rate of decline (30.0%) was in the two-year period following the publication of the Women’s Health Initiative (WHI) study results in 2002. This is consistent with previous studies, which reported significant declines in HRT use following the release of the WHI study.^{4, 30}

The age-standardized, combined rate of HRT useⁱⁱⁱ among female seniors in all five provinces declined from 13.9% in 2001–2002 to 5.2% in 2006–2007. Female seniors in Alberta had the highest rate of HRT use in 2006–2007, at 6.6%, while the lowest rate was found in Manitoba, where 3.8% of female seniors had HRT claims.

Figure 1 Age-Standardized Rates of HRT Use Among Female Seniors on Public Drug Programs in Select Provinces,* 2000–2001[†] to 2006–2007



Notes

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

† Nova Scotia data are not available for 2000–2001.

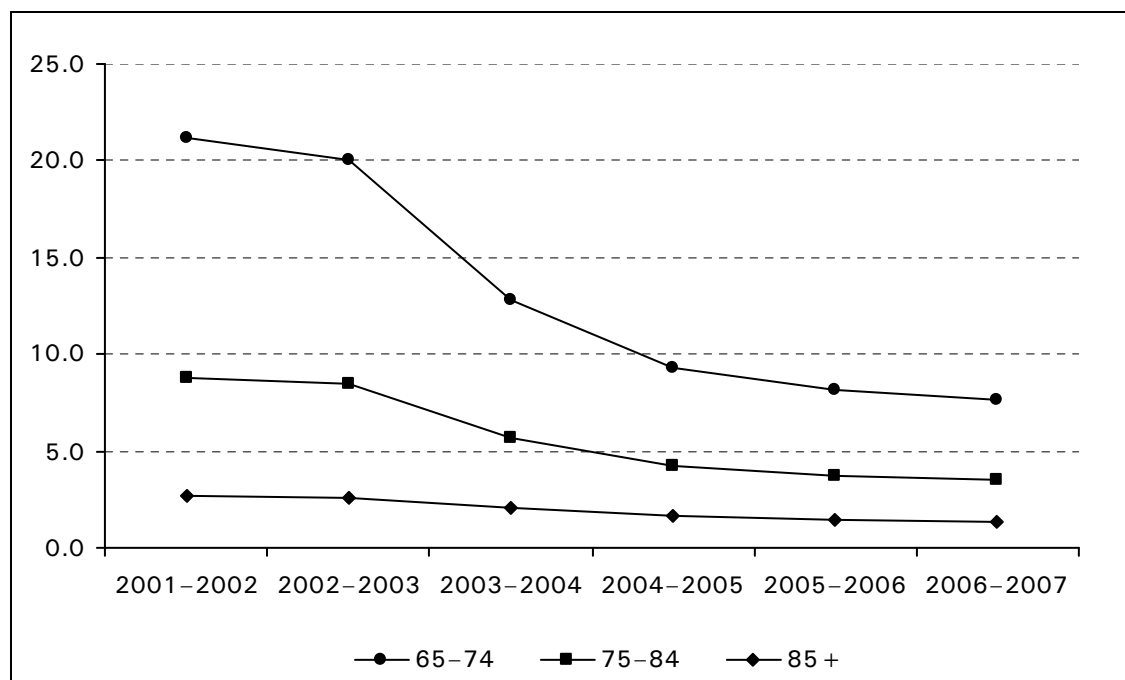
Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

iii. For non-standardized rates, see Appendix C.

The use of HRT was highest among female seniors aged 65 to 74, and decreased with age (Figure 2). In 2006–2007, 7.7% of female claimants between the ages of 65 and 74 had claims for HRT, whereas 3.5% of female claimants between the ages of 75 and 84, and 1.4% of those aged 85 and older, were HRT users. The largest decline in HRT use was in claimants between the ages of 65 and 74.

Figure 2 Percentage HRT Use Among Female Senior Claimants on Public Drug Programs in Select Provinces,* by Age Group, 2001–2002 to 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

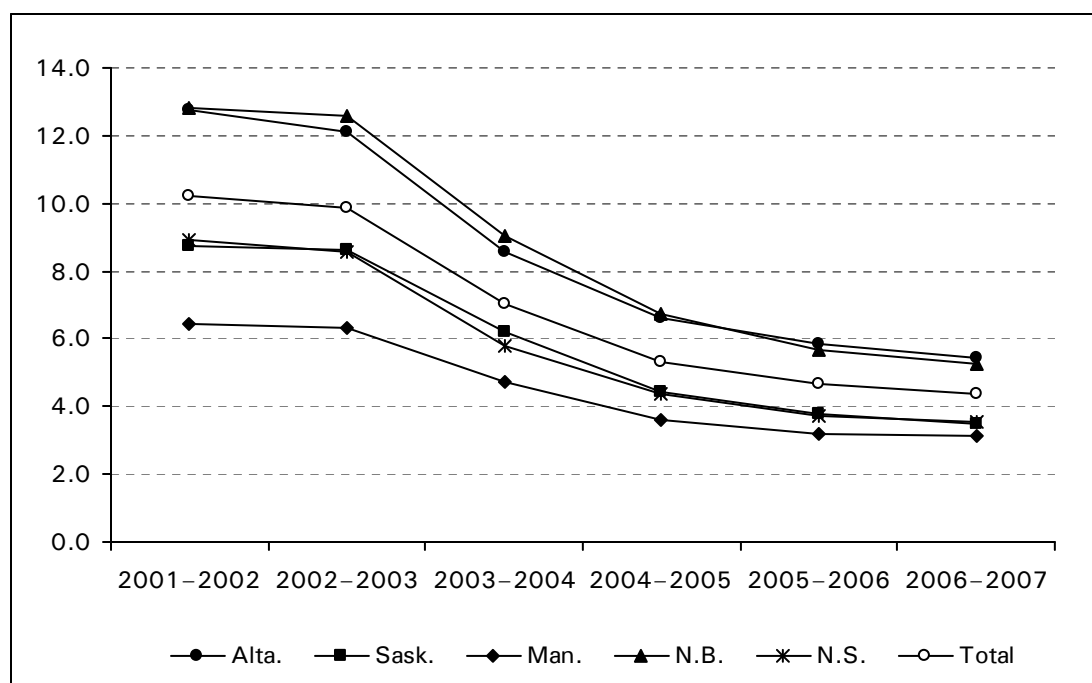
Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

Type of HRT

The use of both estrogen-only and combination HRT declined during the study period. Estrogen-only HRT use declined at an average rate of 14.7% per year between 2001–2002 and 2006–2007. During the two-year period following publication of the 2002 WHI study results, use fell at an average rate of 25.6% per year (Figure 3). In the two years following publication of the 2004 WHI study results, estrogen-only HRT use fell by an average of 8.3% per year. In 2006–2007, the age-standardized rate of estrogen-only HRT use^{iv} varied from 3.1% in Manitoba to 5.4% in Alberta.

Figure 3 Age-Standardized Rate of Estrogen-Only HRT Use Among Female Senior Claimants on Public Drug Programs in Select Provinces,* 2001–2002 to 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

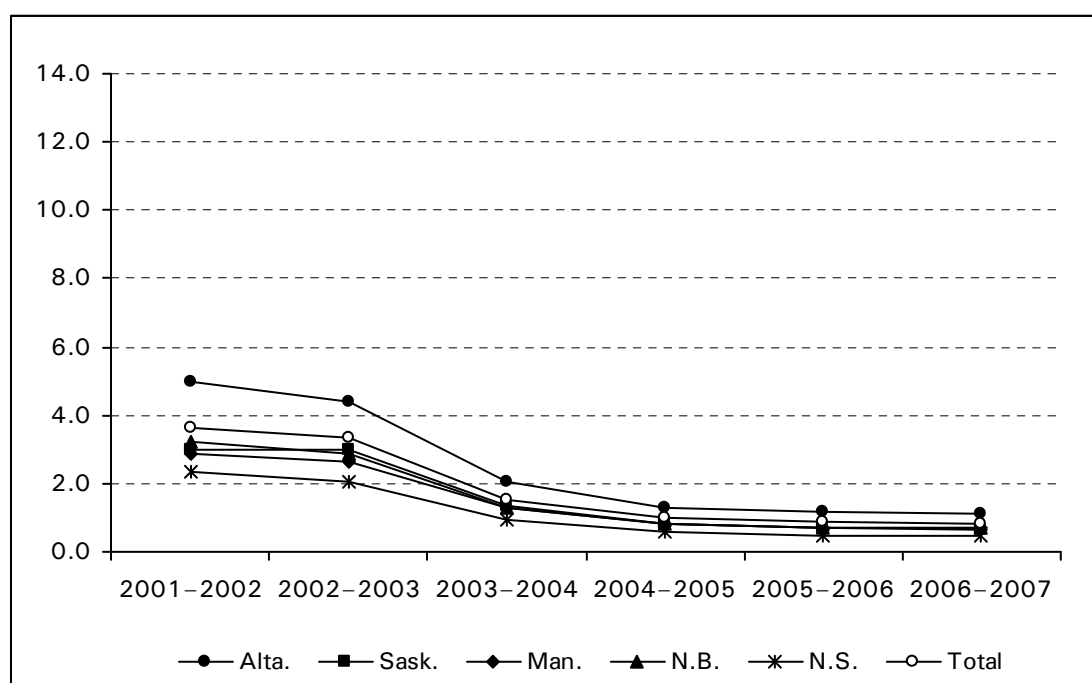
iv. For non-standardized rates, see Appendix C.

Analysis in Brief

Taking health information further

Between 2001–2002 and 2006–2007, the use of combination HRT therapy fell at an average rate of 24.9% per year, a much greater rate than the use of estrogen-only therapy (Figure 4). Combination HRT use declined at an average rate of 45.2% per year in the two-year period following publication of the 2002 WHI study results. In 2006–2007, the age-standardized rate of combination HRT use^v ranged from 0.5% in Nova Scotia to 1.1% in Alberta.

Figure 4 Age-Standardized Rate of Combination HRT Use Among Female Senior Claimants on Public Drug Programs in Select Provinces,* 2001–2002 to 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

Source

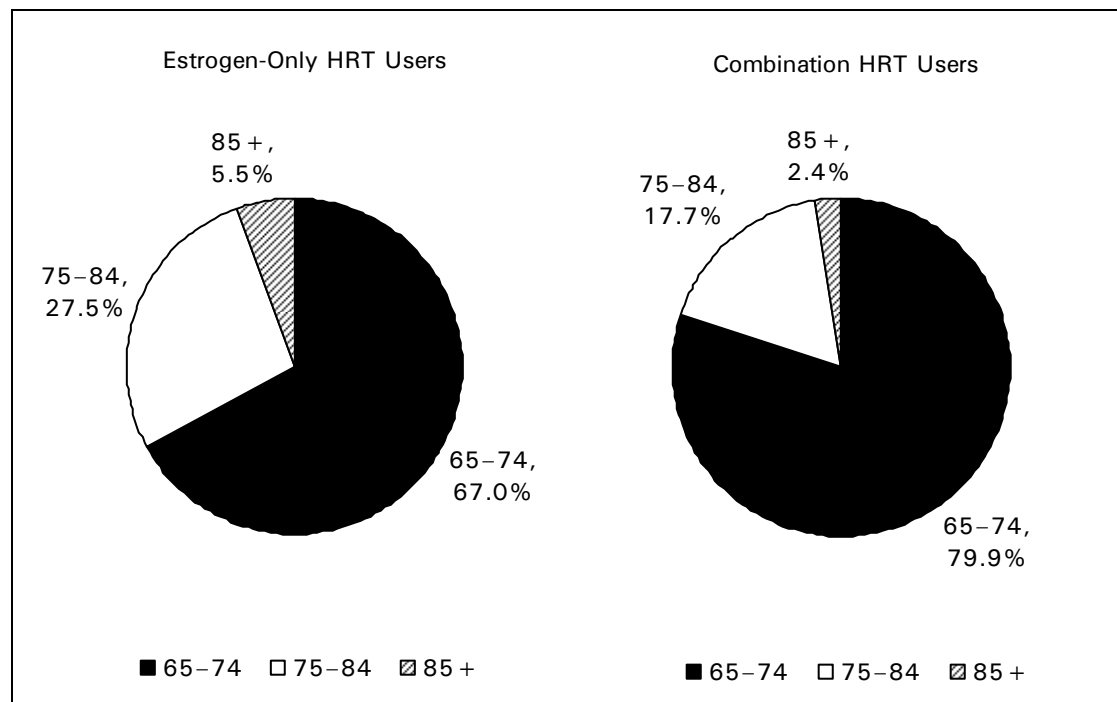
National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

v. For non-standardized rates, see Appendix C.

The more rapid decline in combination HRT use during the study period resulted in an increase in the proportion of HRT users on estrogen-only regimens from 72.7% in 2001–2002 to 84.1% in 2006–2007. These proportions are consistent with other studies examining HRT use in similar age groups.³⁰ It should be noted that patients switching from combination to estrogen-only HRT during the study period seemed to be a factor in this shift; 15.8% of combination HRT users in 2001–2002, who also had claims for HRT in 2006–2007, were on estrogen-only HRT in 2006–2007.

There is a noticeable difference between the age of estrogen-only and combination HRT users in 2006–2007 (Figure 5); 67.0% of senior estrogen-only HRT users are in the 65-to-74 age group, 27.5% in the 75-to-84 age group and 5.5% were aged 85 and older. A much higher percentage (79.9%) of combination HRT users was found in the 65-to-74 age group, resulting in a much lower percentage of users in the 75-to-84 (17.7%) and 85 and older (2.4%) age groups.

Figure 5 Percentage of Female Senior Estrogen-Only and Combination HRT Users on Public Drug Programs in Select Provinces,* by Age Group, 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

Duration and Dose of HRT

Current Canadian menopause guidelines recommend that HRT be taken at the lowest effective dose and for the appropriate duration to achieve treatment goals. As noted previously, several factors limited analytic work on dose and duration of therapy.

HRT Duration:

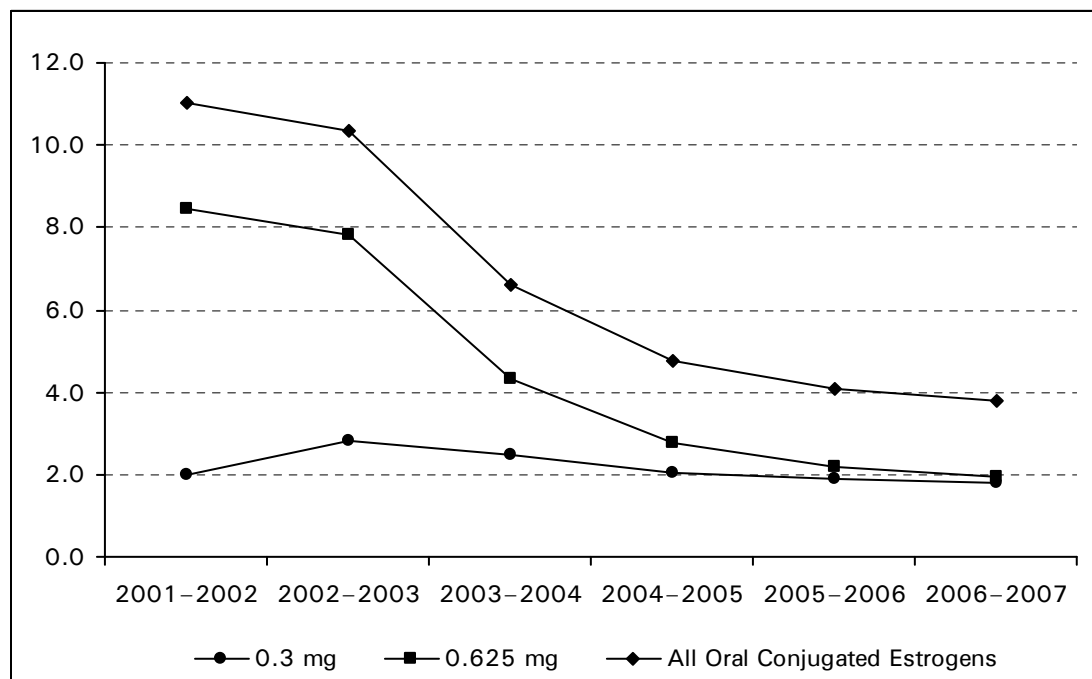
Examining duration of treatment was difficult because of the limited time horizon of the data, as well as the lack of information regarding the length of time patients were using HRT prior to turning 65. For this reason, duration of HRT was only examined for patients who were aged 65 years or older in 2001–2002 and had HRT claims in every year from 2001–2002 to 2006–2007. Of those patients who were HRT users in 2001–2002 and had a claim for any drug in every year of the study period, 22.2% had HRT claims in all six years.

HRT Dose:

Due to the lack of available information about dispensed quantity units, and complexities in progestogen dosing, analysis of HRT dose trends was limited to claims for oral conjugated estrogens. Female seniors with claims for oral conjugated estrogens accounted for 75.7% of all female seniors with HRT claims in 2006–2007. Trends in claims for the two most commonly prescribed strengths of oral conjugated estrogens (0.3 mg and 0.625 mg tablets) were examined. In 2006–2007, 92.8% of all conjugated estrogen users had claims for either of these strengths. A small percentage of users had claims for multiple strengths. In 2006–2007, 1.9% of female seniors with public drug claims had at least one claim for a 0.625 mg strength conjugated estrogen product and 1.8% had claims for the 0.3 mg strength (Figure 6).

During the study period, the use of the 0.625 mg strength declined by an average annual rate of 24.6% (Figure 6). The use of the 0.3 mg strength increased by 43.6% between 2001–2002 and 2002–2003, but declined by an average annual rate of 9.5% during the remainder of the study period. Because of the much faster decline in use of the 0.625 mg strength, the proportion of conjugated estrogen users who had claims for the 0.625 mg strength dropped from 77.3% in 2001–2002 to 50.8% in 2006–2007, while the proportion of those with claims for the 0.3 mg strength increased from 17.8% in 2001–2002 to 46.7% in 2006–2007. Switching between strengths seemed to play an important role in this shift. Of patients using 0.625 mg conjugated estrogen products in 2001–2002 who also had HRT claims in 2006–2007, 36.5% were using a 0.3 mg product in 2006–2007. This number excludes seniors with claims for both strengths in 2006–2007.

Figure 6 Percentage Oral Conjugated Estrogen Use Among Female Senior Claimants on Public Drug Programs in Select Provinces,* by Strength, 2001–2002 to 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

Source

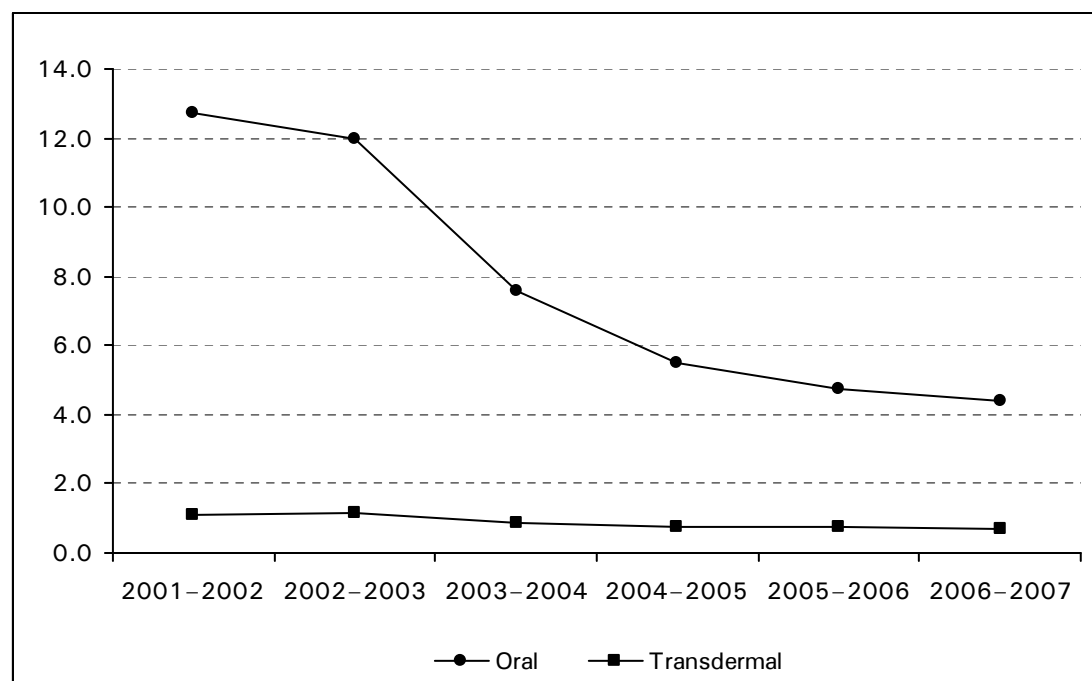
National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

Route of Administration of HRT

The majority of female seniors had claims for oral HRT products (88.2% in 2006–2007), while 14.2% had claims for transdermal products,^{vi} including patches and gels (a small proportion of patients had claims for both oral and transdermal products). Some studies have suggested that there is a reduced risk of venous thromboembolism (VTE) with transdermal products compared to oral therapy.³¹

The majority of the decline in HRT use was with oral products. The use of oral-HRT products fell at an average annual rate of 18.0% per year, faster than the 7.6% average annual rate of decline in transdermal HRT product use (Figure 7). Patients switching from oral to transdermal HRT products during the study period had little effect on these trends. Of patients using oral HRT products (and not using transdermal products) in 2001–2002 who were still using HRT in 2006–2007, only 2.5% were using transdermal HRT products (and not using oral products) in 2006–2007.

Figure 7 Percentage HRT Use Among Female Senior Claimants on Public Drug Programs in Select Provinces,* by Route, 2001–2002 to 2006–2007



Note

* The five provinces submitting claims data to the NPDUIS database as of February 2008.

Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

vi. Medications that are absorbed through the skin.

Conclusion

The emergence of new evidence on the benefits and risks of hormone replacement therapy (HRT) throughout the past two decades has led to ongoing revisions to clinical practice guidelines on HRT use. Current Canadian menopause and osteoporosis guidelines recommend consideration of the potential risks and benefits to patients, whether prescribing HRT for menopausal symptoms or for fracture prevention.^{20, 21} Canadian menopause guidelines also recommend the primary indication for HRT be to manage moderate to severe menopause symptoms, and that it be prescribed at the lowest effective dose and for the appropriate duration to achieve the treatment goals.

The use of HRT has fluctuated over the years with the publication of changing evidence. Several studies have shown significant declines in HRT use since the publication of the Women's Health Initiative (WHI) study in 2002.^{4, 30} The results of this analysis are consistent with these studies. The number of HRT users among female seniors in Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia declined by 17.0% per year between 2001–2002 and 2006–2007, and by 30.0% per year in the two-year period following publication of the WHI 2002 study results. The decrease in the use of combination HRT was more pronounced, declining at an average rate of 24.9% per year during the study period, compared to the 14.7% average annual decline in estrogen-only use. The proportion of conjugated estrogen users who had claims for the 0.625 mg strength dropped from 77.3% in 2001–2002 to 50.8% in 2006–2007, while the proportion of those with claims for the 0.3 mg strength increased from 17.8% in 2001–2002 to 46.7% in 2006–2007.

Though this analysis provides some insight into how changes in evidence have affected HRT use in Canadian female seniors, several questions remain unanswered. Further analysis is needed to examine areas such as the effect the decline in HRT use has had on the use of non-hormonal therapies in the management of menopause symptoms, as well as therapies such as bisphosphonates, used for fracture prevention in post-menopausal women.

Appendix A—Drug Classification Systems

Drugs can be analyzed using many different classification systems. For the purposes of this analysis in brief, the following have been used:

- The drug identification number (DIN) as assigned by Health Canada. A DIN is specific to manufacturer, trade name, active ingredient(s), strength(s) of active ingredient(s) and pharmaceutical form. In this analysis, references to drug products are implied to be specific to DIN level.
- World Health Organization system of Anatomical Therapeutic Chemical (ATC) classifications as reported in the Health Canada Drug Product Database.^{vii}
 - In the ATC classification system, the drugs are divided into different groups according to the organ or system on which they act and their chemical, pharmacological and therapeutic properties.
 - The ATC does not distinguish between strength, dosage, route or form of drug, except as implied by the ATC (for example, inhaled corticosteroid).
 - Drugs are classified in groups at five different levels.
 - The drugs are divided into 14 main groups (first level), with one pharmacological/therapeutic subgroup (second level).
 - The third and fourth levels are chemical/pharmacological/therapeutic subgroups.
 - The second, third and fourth levels are often used to identify pharmacological subgroups when that is considered more appropriate than therapeutic or chemical subgroups.
 - The fifth level is the chemical substance.

vii. Although typically Health Canada assigns drug products to a fifth-level ATC, in some cases, it may assign an ATC at the fourth or even the third level.

Appendix B—Distribution of Total Female Senior Population^{viii} and Female Senior Claimants on Public Drug Programs in Select Provinces,^{ix} by Age, 2006–2007

Alberta

Group	Female Senior Population (n = 196,613)	Female Senior Claimants (n = 177,929)
65–74	50.0%	49.8%
75–84	35.2%	36.0%
85 +	14.8%	14.1%

Saskatchewan

Group	Female Senior Population (n = 83,177)	Female Senior Claimants (n = 77,163)
65–74	43.7%	41.0%
75–84	37.0%	37.3%
85 +	19.3%	21.7%

Manitoba

Group	Female Senior Population (n = 91,459)	Female Senior Claimants (n = 84,890)
65–74	44.6%	42.7%
75–84	37.1%	37.7%
85 +	18.3%	19.5%

New Brunswick

Group	Female Senior Population (n = 60,940)	Female Senior Claimants (n = 38,843)
65–74	48.1%	41.1%
75–84	35.7%	37.4%
85 +	16.2%	21.6%

viii. Population data come from Statistics Canada, Demography Division, Special Tabulation, June 2007.²⁵ The population estimates for 2000–2001 to 2002–2003 are considered final, while interim population estimates were used for 2003–2004 to 2006–2007.

ix. The five provinces submitting claims data to the NPDUIS database as of February 2008.

Analysis in Brief

Taking health information further

Nova Scotia

Group	Female Senior Population (n = 77,340)	Female Senior Claimants (n = 58,788)
65-74	49.0%	43.0%
75-84	34.2%	36.0%
85 +	16.8%	21.0%

Canada – Standard Population

Group	Female Senior Population (n = 2,445,692)	Female Senior Claimants (N/A)
65-74	48.9%	N/A
75-84	36.1%	N/A
85 +	14.9%	N/A

Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

Appendix C – Comparison of Age-Standardized and Non-Standardized Rates of HRT Use, Estrogen-Only HRT Use and Combination HRT Use

Age-Standardized Percentage Rates (Non-Standardized Rates in Parentheses) of HRT Use, by Jurisdiction, 2000–2001 to 2006–2007

Jurisdiction	2000–2001		2001–2002		2002–2003		2003–2004		2004–2005		2005–2006		2006–2007	
Alta.	17.7	(18.5)	17.7	(18.4)	16.5	(17.0)	10.6	(10.9)	7.9	(8.1)	7.0	(7.1)	6.6	(6.6)
Sask.	11.6	(10.8)	11.8	(10.8)	11.6	(10.6)	7.5	(6.9)	5.3	(4.8)	4.5	(4.1)	4.1	(3.7)
Man.	9.1	(8.6)	9.3	(8.8)	9.0	(8.4)	6.0	(5.6)	4.4	(4.1)	3.9	(3.6)	3.8	(3.5)
N.B.	15.6	(14.3)	16.1	(14.6)	15.5	(13.9)	10.4	(9.3)	7.6	(6.8)	6.3	(5.8)	5.9	(5.4)
N.S.	N/A	N/A	11.3	(10.4)	10.6	(9.8)	6.7	(6.2)	5.0	(4.6)	4.2	(3.9)	4.0	(3.7)
Total	14.1	(14.0)	13.9	(13.6)	13.2	(12.8)	8.6	(8.3)	6.3	(6.1)	5.5	(5.3)	5.2	(5.0)

Age-Standardized Percentage Rates (Non-Standardized Rates in Parentheses) of Estrogen-Only HRT Use, by Jurisdiction, 2001–2002 to 2006–2007

Jurisdiction	2001–2002		2002–2003		2003–2004		2004–2005		2005–2006		2006–2007	
Alta.	12.7	(13.2)	12.1	(12.4)	8.6	(8.8)	6.6	(6.7)	5.9	(5.9)	5.4	(5.5)
Sask.	8.8	(8.1)	8.6	(7.9)	6.2	(5.7)	4.5	(4.1)	3.8	(3.5)	3.5	(3.2)
Man.	6.4	(6.1)	6.3	(5.9)	4.7	(4.4)	3.6	(3.4)	3.2	(3.0)	3.1	(2.9)
N.B.	12.8	(11.7)	12.6	(11.4)	9.0	(8.2)	6.7	(6.1)	5.6	(5.1)	5.2	(4.8)
N.S.	8.9	(8.3)	8.6	(8.0)	5.8	(5.4)	4.4	(4.1)	3.7	(3.5)	3.5	(3.3)
Total	10.2	(10.0)	9.9	(9.6)	7.0	(6.8)	5.3	(5.2)	4.7	(4.5)	4.4	(4.2)

Age-Standardized Percentage Rates (Non-Standardized Rates in Parentheses) of Combination HRT Use, by Jurisdiction, 2001–2002 to 2006–2007

Jurisdiction	2001–2002		2002–2003		2003–2004		2004–2005		2005–2006		2006–2007	
Alta.	5.0	(5.2)	4.4	(4.6)	2.0	(2.1)	1.3	(1.3)	1.2	(1.2)	1.1	(1.1)
Sask.	3.0	(2.7)	3.0	(2.7)	1.3	(1.2)	0.8	(0.7)	0.7	(0.6)	0.7	(0.6)
Man.	2.9	(2.7)	2.7	(2.4)	1.3	(1.2)	0.8	(0.7)	0.7	(0.6)	0.7	(0.6)
N.B.	3.2	(2.9)	2.9	(2.5)	1.3	(1.1)	0.8	(0.7)	0.7	(0.6)	0.7	(0.6)
N.S.	2.3	(2.1)	2.1	(1.9)	0.9	(0.9)	0.6	(0.5)	0.5	(0.4)	0.5	(0.4)
Total	3.7	(3.6)	3.3	(3.2)	1.5	(1.5)	1.0	(0.9)	0.9	(0.8)	0.8	(0.8)

Source

National Prescription Drug Utilization Information System database, Canadian Institute for Health Information.

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