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The Authors, Sociology and Anthropology Department, MSVU and
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Executive Summary

From April 2003 to March 2004, a study on Seniors' Prescription Drug Use in Nova Scotia was conducted by Dr. Nanciellen Davis, Dr. Jane Gordon, Dr. Hazel MacRae and Dr. Norman Okihiro, all of the Sociology and Anthropology Department of Mount Saint Vincent University (MSVU). The study was funded by Merck Frosst and coordinated by the Nova Scotia Centre on Aging at MSVU. The targeted areas of interest for the study were to identify patterns in seniors' purchase and use of prescription drugs, the factors that influence these patterns, and the strategies that seniors use to influence related public policy.

Dr. Norman Okihiro developed a survey that was distributed primarily through seniors' organizations. The survey analysis was based on 424 respondents aged 65 and over. Dr. Jane Gordon and Dr. Rusty Neal, a contracted consultant, conducted seven focus groups held throughout the province, and consolidated themes contributed by 65 participants. Dr. Hazel MacRae and Dr. Nanciellen Davis conducted interviews with 20 individual seniors. Dr. Davis and Jennifer Watts, Project Coordinator, conducted interviews with representatives from the nine organizations composing the Nova Scotia Seniors' Organizations – Group of IX, as well as the Executive Director of the Nova Scotia Senior Citizens' Secretariat.

The major findings of the research are as follows:

- The majority of research participants were actively engaged in maintaining their health through strategies such as a healthy diet, exercise, use of vitamins and supplements, staying socially active, and having a spiritual life.
- The results of the study confirmed the well-known understanding that living in a coupled relationship (married/common law) has a positive impact on health.
- Most seniors in the study (90% of survey sample) used one or more prescription drugs (average of 3-4 prescriptions for survey respondents).
- Almost all of the seniors studied used a pharmacy to obtain prescription medications and 99% of the survey respondents usually used the same one.
- Pharmacists were highly regarded for their helpfulness and knowledge of specific prescription drugs and their side effects.
- Intentional non-compliance with prescription instructions was a common occurrence (23% of survey respondents). People with lower incomes tended to be more non-compliant, but only if they were not living as part of a couple.
- The Pharmacare Program was generally appreciated, and concerns about cost factors were primarily related to potential future cost increases.
- Individual advocacy was considered less effective than group efforts.

Areas of suggested future research include the role of pharmacists, further exploration of non-compliance, and comparative studies across jurisdictions.

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Seniors' Prescription Drug Use in Nova Scotia Research Report

April 2004
(Revised February 2005)

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Disclaimer

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1.0 Introduction

Seniors are high users of prescription drugs[1], and identifying factors that affect their use of drugs is important to seniors as well as to the health care system overall. The purpose of this research project has been to identify factors influencing Nova Scotia seniors' experiences in taking prescription drugs. Questions included those regarding seniors' personal characteristics, seniors' perceptions of their health and the steps they take to maintain their health; their purchasing and use of prescription drugs and their experiences in communicating with health professionals (doctors and pharmacists). Questions also related to seniors' perceptions of prescription drug costs, the Nova Scotia Seniors' Pharmacare Program, and their strategies for attempting to influence government policy in the Program.

Different data collection methods (survey, focus groups, individual interviews) were used in the research. The project's multiple ways of collecting data provide a unique advantage in exploring the factors contributing to seniors' prescription drug use in Nova Scotia. The discussion of the findings that follows points to some important directions for future research.

1.1 Profile of Nova Scotia Seniors

Population Characteristics

The population of Nova Scotian seniors (age 65 years and older) in 2003 was estimated to be 129,200. In that year, seniors represented 13.7% of Nova Scotia's total population of 946,200. Nova Scotia has the oldest population in Atlantic Canada, and the third oldest in Canada (provinces of Saskatchewan and Manitoba have older populations)[2]. Nationally, seniors represent 12% of the total population of Canada[3].

Seniors are the fastest growing segment of the Nova Scotia population. Between 2000 and 2026 the senior population will almost double compared to an increase of only 4% of the total population. Seniors are projected to be 25% of Nova Scotia's population in 2026[4]. Nationally, seniors are expected to represent 21% of the population by 2026[5].

In Nova Scotia in 2003, there were 55,600 males over the age of 65 (43%) and 74,600 females over the age of 65 (57%)[6]. The ratio of women to men increases steadily with age. In 2000, there were 102 women for every 100 men between the ages of 55 and 64

[1] Tamblyn, Robyn and Robert Perreault. 2000. "Prescription Drug Use and Seniors." *Canadian Journal on Aging* 19: 143-175
[2] A Statistical Profile of Nova Scotia Seniors, 2003, Nova Scotia Senior Citizens' Secretariat, p. 5
[3] National Advisory Council on Aging. Retrieved on April 6, 2004 from the Health Canada website: www.hc-sc.gc.ca/seniors-aines/seniors/english/naca/naca.htm
[4] A Statistical Profile of Nova Scotia Seniors, 2003, Nova Scotia Senior Citizens' Secretariat, p. 5-6
[5] Statistics Canada CANSIM, Table 052-0001
[6] Statistics Canada CANSIM 11, Table 051-0001

compared to the age group of 85 years and older where there were 249 women for every 100 men[7].

Life expectancy for seniors over the age of 65 continues to increase. Nova Scotians over the age of 65, both male and female, increased their life expectancy by two years between 1975 and 1999. Overall, women tend to live longer than men and females over the age of 65 can be expected to outlive their male counterparts by four years[8].

Geographic Location in Province

In 2001, seniors living in urban areas (as defined by incorporated towns and municipalities) of Nova Scotia comprised a total of 63% of the senior population with 37% of the senior population living in rural Nova Scotia (all areas outside of town and municipal boundaries)[9].

Nova Scotian towns have the highest proportion of seniors with approximately 18% of the residents of the 32 towns in the province being seniors (2002). Seniors represent 15.6% of the population in the Cape Breton Regional Municipality and in the Halifax Regional Municipality seniors represent 10.8% the population. In rural Nova Scotia (areas outside town and municipality boundaries) seniors represented 14% of the population. Of the 18 counties in Nova Scotia, Halifax county has the youngest population where seniors are 11% of residents and Guysborough county has the largest proportion of seniors with 19%[10].

Health

Seniors' visits to general practitioners and specialists in Nova Scotia are higher than other population age groups. In 2001/2002, for example, total visits to a general practitioner per 1,000 women age 65-74 measured 7,564 compared to total visits per 1,000 women aged 15-54 which measured 4,455. In the 65-74 age group, total physician visits (general practitioners and specialists) were almost equal for males and females, while in the age group of 75 years and older males had a higher rate of physician visits (a difference of 14% between male and female visits).[11]

Use of emergency, outpatient and surgery services generally increases with age[12]. Seniors account for a relatively large share of hospitalizations, with seniors in 2001/2002 accounting for 42% of hospitalizations of persons 15 years of age and older. The leading cause of hospitalization for all seniors is circulatory disease. In 2001/2002, the most common reasons for hospitalization of seniors (age 65-74) were circulatory disease (27%), cancer (malignant neoplasms) (10%), digestive system disease (11%),

[7] A Statistical Profile of Nova Scotia Seniors, 2003, Nova Scotia Senior Citizens' Secretariat, p. 10
[8] Ibid, p. 16
[9] Ibid p. 14
[10] Ibid, p. 1
[11] Ibid, p. 17
[12] Ibid, p. 18

respiratory disease (10%), followed by injury and poisoning (7%)[13]. Circulatory disease (including cardiovascular) and cancer (malignant neoplasms) were the leading causes of death for seniors in Nova Scotia (2001/2002)[14].

Economic Status

In Nova Scotia, the incidence of poverty is lower for seniors than other Nova Scotians. This is due in large part to federal programs such as the Old Age Security (OAS), Guaranteed Income Supplement (GIS) and the Canada Pension Plan (CPP). Six percent of seniors (approximately 7,000 persons) were living below the low-income cut-off (LICO)[15] in 1999. Senior women living on their own accounted for 85% of the 7,000 seniors living below the LICO[16].

The average total income in 2000 for seniors in Nova Scotia was $21,600. Average total income for men was $27,375 and for women was $17,248. Nationally, in 2000, the average total income for seniors was $24,437. Average income for men in Canada amounted to $30,775 and $19,461 for women.

The median total income (the income figure that represents the middle of the sample where half the values fall above and half the values fall below) for Nova Scotian seniors of both sexes in 2000 was $15,737. Median income for males was $20,294 and for females was $13,507. Nationally, the median total income in 2000 for seniors of both sexes was $17,084. Median income for Canadian males was $21,952 and for females was $14,859[17].

In 2002, out of the total population of 127,700 seniors in Nova Scotia, there were 126,254 seniors (99%) receiving OAS and 57,447 seniors receiving GIS (45%)[18]

Living Arrangements

Most seniors in Nova Scotia in 2000 lived at home in owned or rented accommodation (94.9%). Seniors living in a home owned by themselves or a family member account for 67.8% of the senior population, seniors renting accommodation in the open market account for 22.6%, seniors living in non-profit seniors' apartments account for 4.5%, and seniors living in licensed nursing homes account for 4%. Just under 1% of seniors live

[13] A Statistical Profile of Nova Scotia Seniors, 2003, Nova Scotia Senior Citizens' Secretariat,, p. 21
[14] Ibid, p. 23
[15] The LICO is defined by Statistics Canada as the income level at which families are living in relation to the poverty line. It is defined by the proportion of family income that goes to essentials such as food, shelter and clothing. The LICO is set for various situations in Canada and considers family size and rural/urban realities.
[16] A Statistical Profile of Nova Scotia Seniors 2003, Nova Scotia Senior Citizens' Secretariat, pps. 41-42
[17] Presence of Income (6), Age Groups (5A) and Sex (3) for Total Population 15 Years and Over, for Canada, Provinces, Territories and Federal Electoral Districts (1996 Representation Order), 2001 Census – 20%Sample Data. Ottawa: Statistics Canada, May 13, 2003. 2001 Census of Canada. Catalogue number 95F0431XCB01003
[18] A Statistical Profile of Nova Scotia Seniors 2003, Nova Scotia Senior Citizens' Secretariat, p. 48.

in licensed residential care facilities (homes for individuals requiring supervisory or personal care that are licensed by the province)[19].

1.2 Seniors' Organizations in Nova Scotia

There is an active network of seniors' centres, councils, clubs and organizations in Nova Scotia. There are approximately 231 seniors' clubs in Nova Scotia that provide a variety of social activities, educational programs, and advocacy opportunities for seniors in their local communities. There are 18 seniors' councils in the province made up of representatives of seniors' clubs. The councils serve as a forum for sharing information and addressing local seniors' issues. Council representatives meet with the Senior Citizens' Secretariat at least twice a year at consultations on seniors' issues. There are approximately 28 seniors' centres across the province that provide opportunities for seniors to meet together, participate in program activities and receive services. There are several other seniors' organizations that work with seniors in particular geographic areas, with seniors of particular ethnic groupings or on specific issues of concern for seniors.

Nova Scotia Senior Citizens' Secretariat

The Senior Citizens' Secretariat is a coordinating body for senior citizens' affairs in Nova Scotia established in 1980 by provincial legislation. The mandate of the Secretariat is to facilitate and coordinate the planning and the development of policies, programs and services for seniors. The provincial ministers of the Secretariat include the Minister of Health (Chair of the Senior Citizens' Secretariat), Minister of Community Services, Minister of Service Nova Scotia and Municipal Relations, Minister of Education, and the Minister of the Office of Health Promotion and Minister responsible for the Nova Scotia Sport and Recreation Commission.

The Secretariat works in partnership with government departments and in consultation with seniors. The Secretariat holds semi-annual consultations with seniors' councils, seniors' centres and related agencies. The Secretariat also has regular meetings with the Nova Scotia Seniors' Organizations - Group of IX, an advisory group to the Secretariat on seniors' issues.

Nova Scotia Seniors' Organizations - Group of IX

The Nova Scotia Seniors' Organizations - Group of IX is an organization independent of government and which acts as an advisory group to the Senior Citizens' Secretariat on seniors' issues. The primary role of the Group of IX is to strengthen the voice and presence of seniors in government decision-making. The Group of IX also has a formal mandate to provide advice to the Minister of Health on matters such as Pharmacare and long-term care for seniors. The Group of IX includes representatives of the following groups:

[19] A Statistical Profile of Nova Scotia Seniors 2003, Nova Scotia Senior Citizens' Secretariat,, p. 31.

- Canada's Association of Fifty-Plus (CARP)
- Canadian Pensioners Concerned, Nova Scotia
- Federal Superannuates National Association, Nova Scotia Region
- Federation of Senior Citizens and Pensioners
- Gerontology Association of Nova Scotia
- Nova Scotia Government Retired Employees Association
- Regroupement des Aînées et Aînés de la Nouvelle-Écosse
- Retired Teachers Association of Nova Scotia
- Royal Canadian Legion, Nova Scotia/Nunavut Command

The Group of IX represents approximately 120,000 Nova Scotians (approximately 90,000 of its members are Nova Scotian seniors). The Group of IX grew out of an informal association of seniors' organizations who met in the late 1980s and early 1990s to discuss and advocate for social policy issues of concern to seniors. The association was formalized in 1992 with representatives from seven seniors' organizations who formed an umbrella group called the Group of VII Seniors' Organizations. In the mid-nineties, the group expanded to the current nine member organization[20].

1.3 Nova Scotia Seniors' Pharmacare Program

History

The Nova Scotia Seniors' Pharmacare Program is a provincial drug insurance plan that assists people who are 65 years of age and older with the costs of prescription drugs

The Pharmacare Program was introduced in the province of Nova Scotia in 1974/75 for residents of Nova Scotia aged sixty-five and over[21]. When the program was introduced, the provincial government paid for 100% of the costs. In 1989/90, a co-payment component was introduced to the program.

In 1995, a 'new' Seniors Pharmacare Program was implemented with fifty-fifty cost sharing between the provincial government and seniors. At this time a premium was introduced to the program. Between 1995 and 2003, the premium and co-payment increased at different intervals. During the same time period, the number of low income seniors who qualified either for a complete waiving of the premium payment or for reduced premium payments increased.

In 2003, the co-payment was 33% of the prescription cost (minimum $3.00 per prescription) to a maximum of $350 per year. An additional benefit was added so that

[20] Personal Communication, Stephen Coyle, Researcher, Nova Scotia Senior Citizens' Secretariat, April 2004.
[21] Eleanor Hubbard, Director of Pharmaceutical Services, Department of Health, Testimony at the Standing Committee on Public Accounts, Nov. 6, 2002, Halifax, Nova Scotia.

seniors in the program would not pay more than $30.00 for any one prescription when paying their co-payment. The annual premium in 2003 was $336 per year[22].

The Department of Health recently announced changes to the Seniors' Pharmacare Program which came into effect April 1, 2004 and are described in the next section.

Nova Scotia Seniors' Pharmacare Program 2004

Seniors participating in the Nova Scotia Seniors' Pharmacare Program currently pay a yearly premium and a co-payment for each prescription. Changes to the Pharmacare program in April 2004 have resulted in an increase of the annual premium from $336 to $390 per senior ($32.50 per month). The co-payment remained the same at a minimum of $3.00 or 33% of the total cost of the prescription to a maximum of $30 per prescription drug listed on the Nova Scotia Formulary. The annual maximum for the co-payment is $350. The premium costs are paid directly to the Nova Scotia Seniors Pharmacare Program (several options exist for payment) and the co-payment is paid to the pharmacy at the time of filling the prescription. The potential maximum cost for a person participating in the Pharmacare program would be $740.00 ($390 premium and $350 co-payment) providing that the drugs the person required are listed on the Nova Scotia Formulary and that the person is not paying a higher premium as a penalty.

Seniors must apply for coverage with Pharmacare within three months of their eligibility date (first day of the month of the senior's sixty-fifth birthday). If seniors fail to do this then they must wait ninety days for coverage to start and pay one and a half times the premium for Pharmacare coverage for five years (an amount of $585 per year). The same procedures exist for seniors who withdraw from the program and then reapply. Prior to April 2004, seniors joining the Pharmacare Program late would have had to pay one and a half times the premium for the duration of their participation in the program.

Nova Scotia Formulary

The Nova Scotia Formulary is managed by the Formulary Management Committee which is an expert advisory committee including family doctors, geriatricians, pharmacists and drug information specialists. The Committee makes recommendations to the Department of Health regarding which drugs will be covered by the Pharmacare program. A drug may be added to the Formulary as a full benefit or added as a benefit with criteria (Exception Status Drugs). Medications must be prescribed by a doctor, a dentist, an authorized optometrist or an authorized nurse practitioner. The prescription must be filled by a Nova Scotian pharmacy. Medications and supplies that are covered by Pharmacare include prescribed medicines that are included in the Nova Scotia Formulary, some prescribed ostomy supplies and prescribed diabetic supplies including testing materials, needles and syringes.

[22] Correspondence, Historical Changes to the Seniors' Pharmacare Program, Nova Scotia Department of Health, 2004.

Exemptions to Nova Scotia Seniors' Pharmacare Program Premium

The Nova Scotia Seniors' Pharmacare Program offers exemptions or partial reduction of the premium payment to low income seniors who qualify for the program. Single seniors with an income of $18,000 or less and married seniors with a combined income of $21,000 or less do not pay the premium. Seniors receiving the Guaranteed Income Supplement are also not required to pay the premium. Although seniors in these income categories do not pay the premium they are still required to pay the co-payment for prescriptions.

Reduced premium payment is available to some low-income seniors who do not receive the Guaranteed Income Supplement. A single senior with an income of less than $24,000 per year would qualify for reduced premium payments and married seniors whose total personal income and spouse's income is less than $28,000 would also qualify for reduced premium payment.

Eligibility for Pharmacare

Seniors in Nova Scotia are eligible for Pharmacare benefits if they are residents of Nova Scotia, are covered by MSI (Medical Services Insurance) and do not have drug coverage through Veterans Affairs Canada, First Nations or Inuit Health or a private drug plan. If a senior's co-payments through their private plan add up to more than it would have cost to join Pharmacare, they can be reimbursed the additional cost by the Pharmacare program, provided the drugs are on the Nova Scotia Formulary.

Pharmacare Usage Statistics

The total program expenditure for the Nova Scotia Seniors' Pharmacare Program in 2001/2002 was $113,074,294. Drug costs represented $88,411,951 (78%) of this total and pharmacist fees accounted for $24,867,488 (22%). The total population of seniors in the province during 2001/2002 was 126,600. The population insured through the Nova Scotia Seniors' Pharmacare Program was 93,600 which represents 74% of the senior population. A total of 91,626 seniors (97.9%) were listed as 'beneficiaries' of the insured population (the participants in the Pharmacare program who actually filled prescriptions during the year). The number of prescriptions per beneficiary was on average 30.2 and the average expenditure per beneficiary was $1,234.09. The number of prescriptions dispensed during this time period was 2,764,694. It is important to note that these numbers reflect the total number of prescriptions filled including refills[23]

The number of prescriptions filled (including refills) by sex indicates that the numbers are slightly higher for females for the total number of prescriptions filled, but the average cost per male beneficiary was higher. The total number of female beneficiaries in 2001/2002 was 58,777 who accounted for 1,856,670 prescriptions for a total drug cost of $71,090,538. Prescriptions per female beneficiary were an average of 32 prescriptions with an average cost per female beneficiary of $1,209.50. The total

[23] Supplement to Annual Statistics Reports, Medical Services Insurance Tables, 12 months ending March 31,2002. Health Economics, Nova Scotia Department of Health, February 2003, pps.65-66.

number of male beneficiaries in 2001/2002 was 32,849 who accounted for 908,024 prescriptions for a total drug cost of $42,188,892. Prescriptions per male beneficiary were an average of 28 prescriptions with an average cost per male beneficiary of $1,284.33[24].

Currently (2003/2004), there are 94,350 seniors registered in the Pharmacare program. The full premium is paid by 38,500 participants (41%). The number of participants fully exempted from payment of the premium is approximately 47,600 (50%) with the balance of the participants paying a reduced premium (approximately 8,250 or 9%).[25]

For 2003/2004, total program costs of the Pharmacare program are projected to be $134,600,000. The government is projected to pay 73.6% and seniors to pay 26.1% of this total. Total program costs for 2004/05 are projected to be $146,800,000 (9% increase)[26].

1.4 General Introduction to the Methods of the Study

The method of collecting data included three different approaches – focus groups, individual interviews and a survey. Over 575 Nova Scotian seniors directly participated in the research project through participation in focus group sessions (approximately 60), individual interviews (30), and the survey (501 returns). Twenty individual interviews were conducted with seniors who were identified through local seniors' organizations and who were willing to participate in an in-depth interview concerning prescription drug use. Ten interviews were conducted with members of the Group of IX and the Executive Director of the Nova Scotia Senior Citizens' Secretariat. The data collection phase with seniors began in October 2003 and was completed in February 2004. All of the research project instruments received approval from the Mount Saint Vincent University's University Research Ethics Board.

The project coordinator contacted seniors' groups around the province to identify seniors who would be willing to participate in the research project. Generally, seniors who participated in the research (either through the focus groups, individual interviews or by filling out the survey) were connected with a seniors' organization or club. This method of identifying participants in the research did not result in significant contact with seniors who were not active in seniors' organizations or clubs, or who were isolated socially in their home communities. The fact that the research is not based on a representative sample of seniors in Nova Scotia is, then, a limitation of the study that affects the generalizability of the research findings. A comparison of the survey sample to the general population of seniors in Nova Scotia is presented in Table S2.

[24] Supplement to Annual Statistics Reports, Medical Services Insurance Tables, 12 months ending March 31,2002. Health Economics, Nova Scotia Department of Health, February 2003, p. 67
[25] News Release, Provincial Government Invests More in Pharmacare, NS Department of Health, February 27, 2004
[26] News Release, Nova Scotia Seniors' Pharmacare Program Changes to the Program Effective April 1, 2004, Nova Scotia Department of Health, February 2004

Although distribution of the questionnaire contributed to the respondents of the survey largely being drawn from seniors active in a seniors' organization or club, it also resulted in a high degree of cooperation. Seniors' organizations were very diligent in distributing and collecting the surveys within their local communities, particularly in the rural communities, which resulted in a significant response from seniors about prescription drug use.

Members of the research team were responsible for specific areas of the data collection process and analysis. Dr. Norman Okihiro was responsible for the survey. Dr. Jane Gordon and Dr. Rusty Neal were responsible for the focus groups. Dr. Nanciellen Davis and Dr. Hazel MacRae were responsible for the individual interviews. Dr. Nanciellen Davis was also responsible for the interviews concerning the Group of IX.

2.0 Survey Findings

Dr. Norman Okihiro

2.1 Data and Method

Development of Survey Instrument

Following a review of the literature on factors associated with seniors' prescription drug use behaviour, a draft questionnaire for Nova Scotia seniors was developed by the researcher. Input for the questionnaire was also received from focus groups sessions carried out as another component of the project. Revisions were made following comments by members of the research team, students in a university research methods class, and a formal pre-test which involved 35 seniors from a local Senior Centre, seniors at a weekly lunch gathering and seniors at a recreational program in the Halifax area, as well as individual seniors. Participants in the survey pre-test were asked to provide feedback on the survey once it was completed. In some cases, this was done individually and, in other cases, there was group discussion. The final survey instrument used for the research is attached as Appendix 8.1.

Sampling Strategy

Given the limitations of budget, the goal of our sampling strategy was to obtain a sample of Nova Scotia seniors which, while it would not be possible to argue was representative, would be sufficiently large and diverse to enable patterns of prescription drug use to be discerned. It was decided that the survey would primarily be distributed through the senior citizen groups which were listed in the Directory of Senior Citizens' Councils, Clubs, Centres and Organizations 2003-2004, produced by the Nova Scotia Senior Citizens' Secretariat. These groups included regional Seniors' Councils and local seniors' groups.

The Project Coordinator selected groups based on geographical distribution by county. The local contact person from the Directory was contacted to ascertain each group's willingness to participate in the research project. This contact person was then sent enough questionnaires to ensure that everyone in the organization would have the opportunity to fill one out. The contact person brought the surveys to a meeting or a social gathering of the group (e.g. afternoon card game gatherings) and asked seniors to fill out the surveys. The contact person then collected the surveys (including those not filled out) and returned them in the envelope provided. In some cases, the local contact person distributed the surveys to individual seniors in their community or at community gathering places such as bowling centres. Approximately 65 seniors' groups participated in data collection in this manner. In order to ensure some francophone participation, surveys were also distributed at a meeting of a provincial seniors' organization, Regroupement des Aînées et Aînés de la Nouvelle-Écosse. An estimated number of 45 surveys were distributed at the meeting.

Some of the packages sent to contact persons included self-addressed, stamped envelopes for each survey and local contact people then distributed these to individual seniors in their area. The individual seniors then completed the surveys and returned them by mail. In addition, some seniors were recruited through personal contact by members of the research team (church members, family members, work colleagues and neighbours) and given surveys with self-addressed, stamped envelopes to complete and return. An estimated number of 30 surveys were distributed in this manner.

A total of 501 questionnaires were returned. Comments made on a few partially completed surveys, from our pre-test, and from some of the contact persons indicate that some seniors had difficulty understanding some of the questions. This was not likely a problem in the legibility of the text, since a large font was intentionally used. The survey, in fact, requires a level of reading comprehension that may have been beyond a segment of the seniors' population. However, the federal ethics guidelines for doing social research requires informed consent, which, in the case of the survey instrument, required the ability to read the cover page. The cover page itself assured participants that filling out the survey was completely voluntary, and they could stop at any time. The end result is that some persons may have been unable or unwilling to complete the survey. However, having over five hundred voluntary participants complete the questionnaire is a testament to the co-operation of the seniors population in Nova Scotia.

Of the 501 returned questionnaires, 488 provided usable responses. The analysis below is based on the 424 people who indicated that they were 65 years of age and older.

Population and Sample Comparisons

Table S1 and Chart S1 show the percentage of the sample from each county in Nova Scotia, compared to the corresponding population statistics for seniors (those aged 65 and older) from the 2001 census. Note that, by design, every county has some representation in our sample, even those with small populations like Victoria and Richmond counties. Indeed, in general, smaller counties (in terms of population) are over represented in the sample and it is clear that the two largest, Halifax and Cape Breton counties are under represented relative to their actual population of seniors. This under-representation of urban dwellers is discussed below in more depth.

How does our sample compare to known parameters of the Nova Scotia population of seniors? Table S2 compares the distribution of the sample and the seniors population along a number of demographic variables. All population statistics are taken from A Profile of Nova Scotia Seniors, published by the Nova Scotia Senior Citizens' Secretariat, and based on recent data ranging from 1996 through 2003. In places where statistics are used from other sources these sources are footnoted.

Table S2.1 shows the sex composition of the seniors population and the sample. In 2000, 58.3% of the population of Nova Scotia seniors were female, and 41.7% were male. Our sample is 74.3% female, 16% more than the population figure.

In terms of age, comparison to population parameters (Table S2.2) indicate that our sample under represents those aged 65-74 by about 8%, and over represents those aged 75-84 by the same amount. Those aged 85 and older are proportionally represented in our sample.

In 1996, 54% of the Nova Scotia seniors population was married, 34% widowed, 7% never married, and 5% divorced. Our sample figures (Table S2.3) indicate an under representation of the married and over representation of widowed seniors by about 8% (probably due to the larger proportion of females in our sample), with about the right proportion being never married or divorced.

There was quite a difference between the seniors population and the sample in regards to education, as shown by Table S2.4. The sample had fully 20% fewer people with only elementary education than the population, and over represented those with some post-secondary education by 10% and almost doubled the proportion of those with university education. As mentioned above, this is likely in part due to the level of reading comprehension required to complete the questionnaire, as well as the likelihood that those with lower levels of education may have been less likely to join a seniors' group such as the ones from which we drew the bulk of our sample.

In terms of current living arrangement, Table S2.5 shows that our sample has about 10% more seniors who live alone than the population, and about 15% fewer individuals who were living with their spouse. This makes sense, given the over representation of women in the sample, many of whom are widowed.

The distribution of the sample by community type indicated in Table S2.6 is markedly skewed towards people from smaller communities and rural areas. Only 17.1% of the sample indicated that they were from a central city or suburb. Nova Scotia has only two major cities, Halifax and Sydney, whose total population in 2001 comprised over half of the total population of Nova Scotia. Thus, it is clear that these cities are under represented in our sample, a fact which corresponds to the under representation of the counties of Halifax and Cape Breton (which includes Sydney) described above. There is an especially large percentage of the sample who indicated that they were from a rural or unincorporated community, not even classed as a village. While it is generally the case that younger people tend to migrate to cities for career reasons, leaving proportionally more older people in non-urban areas, our sampling strategy strongly over represents those in the smallest communities and most rural areas of the province.

In terms of income, the 2000 average income for seniors in Nova Scotia was $21,600, and the average family income for seniors was $31,100, well below the Nova Scotia

average of $49,100 for all families[27]. Table S2.7 shows that, in our sample, almost half of the seniors responded that their income before taxes was between $15,000 and $30,000. Over 70% reported their income was less than $30,000, with only about 10% earning more than $45,000. Almost one quarter earned less than $15,000.

Table S2.8 shows that about 41% of the sample received the Guaranteed Income Supplement, the federal government top-up of income for those who have low income[28]. The relevant seniors population figure for 2002 was about 45%. Overall, in terms of the distribution of income, the sample may be slightly better off financially than the general seniors population, but it is also quite clearly the case that the sample has a significant number of people with modest incomes, which one would expect from a sample that has an over representation of females, the widowed, and those living in non-urban areas.

Table S2.9 shows that, while 74% of the population of seniors enrolled in Pharmacare in 2001-02[29], 83% of the sample indicated that they had enrolled.

Finally, Table S2.10 shows respondents' answers to an open-ended question asking about their ethnic background. Almost 60% indicated that they were British, primarily English and Scottish. Another 10% were Acadian or French in ethnicity, and 10% indicated a different European ethnic background. A few people responded that they were Canadian (15%) and white (6%)[30]

Importantly, 2% of the sample indicated they were Black. The 2001 census indicated that about 2% of the Nova Scotia seniors population were considered visible minorities, with the bulk of these being Black. No other individual in our sample indicated that they belonged to a visible minority ethnic group. What can be concluded about the ethnic distribution of our sample in comparison to the relevant seniors population? Given changes in the way the census has asked questions about ethnicity over the past few censuses, and our decision to ask an open-ended question on ethnicity, we can only make a few broad generalizations. Almost everyone in the sample identified themselves as Caucasian and traced their roots to Europe, with the majority being of British background. Blacks appear to be proportionally represented, but it is likely that other visible minorities, notably individuals from First Nations groups, are under represented.

[27] Presence of Income (6), Age Groups (5A) and Sex (3) for Total Population 15 Years and Over, for Canada, Provinces, Territories and Federal Electoral Districts (1996 Representation Order), 2001 Census – 20%Sample Data. Ottawa: Statistics Canada, May 13, 2003. 2001 Census of Canada. Catalogue number 95F0431XCB01003

[28] To be eligible for the GIS currently, a single person's taxable income (excluding the federal Old Age Security and the GIS itself) had to be less than $13,200 per year. For married couples both over age 65, the combined total income had to be less than $17,232.

[29] Supplement to Annual Statistics Reports, Medical Services Insurance Tables, 12 months ending March 31,2002. Health Economics, Nova Scotia Department of Health, February 2003, pps.65

[30] While most of our sample could be classed as Canadian and white, only a small percentage of respondents elected to describe their ethnicity as such.

In summary, by sampling mainly seniors who belong to local seniors' organizations[31] with a view to spreading our efforts to include groups from all the counties in Nova Scotia, we obtained a sample that was weighted in favour of women, those aged 74 though 85, the widowed, people living alone and those more likely to have joined the Pharmacare program. There was a strong tendency for our sample to be from smaller communities, to report higher levels of education than the general seniors population, and a small tendency for them to have slightly higher incomes.

2.2 Findings

2.2.1 Staying Healthy

In this section we examine the health status of the seniors in our sample, and methods by which they attempt to remain or become healthy. Table S3.1 shows responses to how people categorized their own health relative to others their age. Some 14% more females reported excellent or good health than males. Indeed, the difference between reported comparative health of men and women was statistically significant. Table S3.2 shows that self-reported good health appears to be related to concern for health. As compared to men, females were less likely to show high levels of concern with their health relative to others of their own age.

Are the respondents' perceptions of their health, and expression of their concern for health, reflected in reported chronic medical conditions? Table S3.3 reveals the incidence of chronic medical conditions for both men and women. There are many similarities in the frequency with which chronic conditions are suffered by men and women within the sample. High blood pressure (hypertension), arthritis, cardiovascular or heart conditions and diabetes are the most common conditions. However, men are significantly more likely to have a cardiovascular condition. Women are more likely to have high blood pressure, arthritis and osteoporosis. Chronic conditions affecting between 5 and 10 percent of the sample included glaucoma, high cholesterol, thyroid conditions and kidney-related conditions. None of these showed significant differences by sex. A few people mentioned that they had Parkinson's disease, Alzheimer's disease, emphysema and asthma.

Table S3.4 shows the number of chronic medical conditions by sex. There is no significant difference between men and women overall. About 13% of the seniors had no chronic medical condition, and another one-quarter had only one. About one in 10 have 4 or more chronic conditions. The average number of chronic conditions was slightly higher for women at 2.09, but this difference was not statistically significant.

[31] 87.5% of the respondents who answered the question as to whether they belonged to a seniors' organization indicated that they did.

Table S3.5 shows the average number of chronic medical conditions for each category of age. In our sample, it appears that between age 65 and 85, there is no strong pattern, but after age 85 the number of chronic conditions increases. The overall variation is statistically significant at the .049 level (using one-way analysis of variance). One should keep in mind that our sample is composed largely of those seniors who participate in at least one seniors' organization and they are thus probably healthier than those seniors who choose not to, or are unable to participate in such an organization.

Overall, then, men reported worse overall health than women, and were correspondingly more concerned about their health than others their own age, though the chief difference in chronic conditions affecting males was a greater propensity towards cardiovascular conditions. However, the overall number of chronic conditions did not vary significantly between men and women.

We were interested in finding out what people did to maintain or improve their health and Table S3.6 reports the major results. Just over half of men and women reported exercising regularly, and about 20% followed a special diet. Two major significant differences were found between men and women. About 3 in 5 women reported taking vitamins or food supplements, compared to only about 2 in 5 men. Secondly, twice as many men in our sample, about 10%, wrote in (in the "other – specify" section) that they kept active, which is, of course, different from exercising regularly. Keeping active can mean a number of things: as well as the physical component, it might include being involved in social activities like joining seniors' organizations, which most of the sample did. Inasmuch as other components of this study mention the importance of keeping busy and active, this is an area where additional research could profitably be done.

2.2.2 Use of Prescription Drugs and Other Medications

A. Prescription Drug Use and Cost

Table S4 shows patterns of prescription drug use among men and women. Given the problem of the accuracy of recall, the survey questions on prescription drug use referred to the past four weeks. However, if the respondent was uncertain if the usage had occurred within this time period, they were asked to answer the question as if it had.[32] Table S4.1 shows that about 90% of both females and males took at least one prescription drug in the past 4 weeks. Table S4.2 shows the number of prescription drugs taken, and again there is no significant sex difference. About 30% of men and women took one or two prescription drugs, and another 30% take three or four.

[32]Research in other areas such as victim studies has shown that when people misrecall dates, they usually "telescope", or misremember them as having occurred closer in time than they actually did (see, for example, Waller and Okihiro, 1978). This would have the effect of inflating the incidence of such reported behaviours in a given time span. However, in victim studies, people are asked to recall events which happened as much as a year ago, or more. By selecting a short time period, more accurate time information is obtained.

Importantly, about 40% take five or more prescription drugs. On average, both men and women who took a prescription drug in the past four weeks took just over four different medications. These figures are important because they show that taking prescription medications is almost universal among seniors in our sample, and most take more than a few medications. While these drugs undoubtedly help to make or keep seniors healthy, it is also the case that the more drugs that are taken, the greater the possibility of unwanted side effects or interactions and the resultant effect on health.

Table S4.3 shows the number of times per day prescription drugs were taken. Just over half of men and women indicated that they took medications once or twice a day. About 1 in 6, however, took medications at least five times per day. The average for men was 2.4, and for women 2.3 times per day.

Table S4.4 shows the average reported cost of prescription medications over the past four weeks for different groups of people. For those with Pharmacare coverage (where the co-pay is 33% of the cost of the prescription up to a maximum of $30 per prescription provided the yearly maximum of $350 has not been attained) the average was about $45 for both men and women. For the small number of people without Pharmacare coverage, the costs were substantially higher, about $70 for women and $130 for men. Note, however, that especially for men, these estimates are strongly affected by two cases where the prescription drug costs were $700 and $800. The effect of these extreme cases is especially powerful because there were only 18 men in the non-Pharmacare category.

B. Over-The-Counter Drug Use and Cost

Table S5 shows the prevalence of over-the-counter (OTC) drug use. Women in the sample were more likely to have taken an over-the-counter drug in the past four weeks than men were. 56% of women indicated that they used over-the-counter drugs compared to 44% of men. There is a related tendency for women to take more OTC medications than men, as indicated in Table S5.2. but this difference is not statistically significant. The average for women was 1.7 OTC drugs in the past four weeks, compared to 1.5 for men. The cost of OTC medications in the past four weeks was around $15 for men and women.

C. Patterns of Prescription Filling

Given the almost universal use of prescription drugs, and the very common use of OTC drugs in the sample, how individuals obtained drugs is an important component of the health related behaviours of seniors. Table S6 shows patterns of prescription filling for the sample. Note that differences by sex are not reported as there were no significant differences that were found.

Table S6.1 indicates that, among those who took prescription drugs during the past four weeks, four out of five (80%) were issued prescriptions from only one doctor. 17.5 % obtained a prescription from two different doctors, and only 3% obtained a prescription

from three or more doctors. This suggests that prescription shopping is not a large scale problem among Nova Scotian seniors.

Almost everyone (93% from Table S6.2) filled their prescription at a drug store, and virtually all (99% from Table S6.7) indicated that they usually obtained medications from the same drug store. Seniors, in this regard, are definitely creatures of habit. Only a handful got medication from their doctor, and, importantly, no one used mail order or the Internet to obtain their prescriptions. It is clear that the current American practice of obtaining medications through the Internet, driven by lower prices, is not relevant for Nova Scotians, even for those who pay for their own prescriptions. None also reported getting medication from friends or relatives. By and large, then, it is drug stores that supply prescription drugs to seniors in Nova Scotia

What are the reasons for obtaining medications used in the past four weeks from the same drug store or pharmacy? Table S7 shows how important each of a number of specified reasons were for respondents. "Drug store/pharmacist is informative or helpful about prescriptions" was selected most frequently by both men (82%) and women (95%) to be a very important reason for going to the same drug store. This was closely followed by the reason that the drug store or pharmacist knew the respondent's medical or drug history and by the friendliness of the drug store staff or pharmacist. The convenience of the location, delivery service or refill service was slightly less important, and least important of all was the dispensing fee of the drug store. It should be noted that although the dispensing fee was the least important ranking of the options given for using the same drug store, it was a still a significant factor with 71% of women and 50% of men noting this as a very important factor.

While the rank order of reasons for using the same drug store was similar for men and women, there is a definite sexual divide in the answers. Men were significantly less likely than women to indicate that any of the reasons for selecting a single drug store was "very important".

D. Forgetting to Take Medications and Memory Aids

Unintentional non-compliance with a prescription for medication is often due to just plain forgetting. This is especially problematic for senior citizens. How prevalent is forgetting to take medications? We asked individuals how many times in the past four weeks they forgot to take their medication on time. Table S8.1 indicates that forgetting is a real problem. About 15% of men and women forgot once, an additional 15% forgot twice, and for about 5% of the sample, forgetting happened three or more times over the past month. There was no significant difference in forgetting between men and women.

How do seniors try to avoid forgetting to take their medication on time? The major memory aid for both men and women was to take their medication with meals, or at the same time each day. Taking prescriptions with meals, of course, is often required. About one in five men and women used a dosage calendar, reminder chart or medication organizer to help them follow the prescriptions. Blister packs were used by

only a small percentage, as were other reminder aids. One finding that was of interest was that men were twice as likely to have someone (normally their spouse or partner) help them take their medication according to the prescription, though this difference was not statistically significant (See Table S8.2). While the individual findings are not significant, one overall pattern that appeared in this data is that women appear to be less forgetful and more conscientious than men in following prescriptions.

E. Type and Amount of Intentional Non-Compliance

Forgetting to take medication on time is one thing, but in some cases people intentionally deviate from taking prescription medication according to the prescription. In this section we examine patterns of intentional non-compliance. Table S9.1 shows the distribution of responses to our intentional non-compliance questions. These questions were asked in a section of the survey that was entitled PRESCRIPTION USE DURING THE PAST YEAR . The section was introduced with the statement "*The following questions deal with the last year or so. If you are uncertain of the date, please answer the questions as if it occurred in this time period*." The question was phrased "*Many people who are taking medications will occasionally not follow the directions for taking one or more of their medications. During the past year, how often have you, for any reason*,…". In our wording of the items, we asked if the respondents had chosen to engage in non-compliant behaviour, to emphasize the intentional aspect of each question.

As with any recall question, the time period that one is requesting a respondent to recall is important in determining the accuracy of the recall. It would have been fine to use a short recall period such as the four previous weeks we used for patterns of prescription drug use. However, intentional non-compliance was found in pre-testing to be a much rarer occurrence, so to ensure that we had sufficient numbers of cases of non-compliance, a longer time period was used[33].

Table S9.1 shows the rates of non-compliance for each of the individual questions that were asked. The table indicates that intentional non-compliance is a fairly rare occurrence. The most frequently mentioned type of non-compliance was to stop taking a prescribed drug. 12% of the sample indicated they did this once, and an additional 2% said they did this more than once during the past year. Choosing not to refill a prescription once or more was mentioned by 8% of the sample, and choosing not to fill a prescription or to delay filling a prescription were each mentioned by about 6% of the sample.

About 10% of the sample indicated that they chose to reduce the dose of a prescribed drug and 10% said they chose to reduce how often a drug was taken. For both of these items, however, about half of the people who engaged in these behaviours said they did

[33] We were more interested in capturing sufficient cases of non-compliance to enable us to do an analysis of the determinants of it, than using the figures to accurately estimate the exact incidence of non-compliance in a given time period.

this more than once. This suggests that such prescription adjusting behaviours are more likely to become a pattern, independent of specific prescribed drugs. A small proportion of respondents (2.2%) said they chose to substitute a prescribed drug with an over-the-counter one.

In order to get some idea of how frequently individuals engaged in non-compliant behaviour, we counted the number of types of non-compliance an individual indicated he or she had engaged in at least once over the past year. Table S9.2 shows the results. Ten percent of the sample had one type of non-compliance, an additional 5% had two, and another 9% had three or more. As table S9.3 indicates, 23.3% of the sample had at least one instance of intentional non-compliance with prescription drugs during the last year.

F. Reasons for Intentional Non-Compliance

What were the reasons people gave for intentional non-compliance? Because of concerns about the length of the survey, we did not ask this question for each type of non-compliance. Instead, we asked individuals who indicated any instance of non-compliance to indicate how important each of a set of reasons for non-compliance was. While we cannot attribute reasons for non-compliance directly to each type of non-compliance, some patterns did emerge. The results are shown in Table S10. The most important reason overall, and especially for not filling a prescription, not refilling a prescription or choosing to stop a prescription was the presence of side effects. Given the number of prescription and OTC drugs that many seniors take, and the fact that all drugs have side effects, this is not a surprising finding. Side effects were also prominent as a reason for reducing the dose or reducing how often a drug was taken, but not as prominent as for the non-filling behaviours.

For almost all types of non-compliance, tied for second place in importance were the medications were ineffective, or the respondents' condition improved. These reasons seem to be mirror opposites. If the condition improved, it may have been because the medications worked. If the condition did not improve or got worse, it presumably was because the medications were ineffective. In either case, it was a reason for not following the prescription further.

Slightly less frequently mentioned as very important was that the medications were too expensive. However, for people who indicated that they delayed filling a prescription, this was the most important reason, and it was the second most important reason for not filling a prescription in the first place. This is the first indication that the cost of prescription medications is an important consideration in intentional non-compliance.

G. Correlates of Intentional Non-Compliance

As specific types of non-compliance were fairly rare within the sample, the first step in our analysis of determinants of intentional non-compliance was to examine variables that were associated with individuals who mentioned any type of non-compliance. As table S9.3 indicates, these individuals comprised 23.3% of the sample, a sufficient

proportion to allow reasonable quantitative analysis. Tables S11.1 through S11.6 show the relationship between a number of variables and any non-compliance.

Table S11.1, the most statistically significant table, indicates that those living alone, with family members other than a spouse or partner, or with non-family members are more likely to be noncompliant than seniors living with their spouse or partner (without children). The small group of only 13 respondents who lived with non-family members were especially likely to be intentionally non-compliant.

Table S11.2 indicates that those who are not currently married (including common law) are much more non-compliant than the married, as one would expect from the strong relationship between marital status and living arrangement. While most of the sample is either married or widowed, the few who indicated they were divorced or separated were especially likely to have been non-compliant. Divorce or separation among this age group of citizens is, of course, much rarer than in younger cohorts.

Table S11.3 shows a relationship between income and non-compliance, with those earning less money being more likely to be non-compliant. In particular, those earning less than $15,000 per year are about three times more likely to be non-compliant than those earning more than $45,000. Those earning between $15,000 and $45,000 are twice as likely to be non-compliant as those earning over $45,000

At first glance, there appears to be a straightforward linear relationship between income and non-compliance. The relationship between a person's ability to afford the cost of medications and non-compliance, however, is one that is complicated. Table S11.4 indicates that those who receive the Guaranteed Income Supplement are marginally more non-compliant than those who do not, but the relationship is not statistically significant. Similarly, agreement or disagreement with the statement "It's hard for people like me to afford the prescription drugs I need" (Table S11.5) was not related to non-compliance, nor was the perception of the cost of Pharmacare among Pharmacare participants (Table S11.6).

There are several possible interpretations that are consistent with the findings. First, the concept of affordability is itself very subjective. A person might feel they can afford costly drugs, but only if they sacrifice spending in other areas. It may also be that complaining about the cost of Pharmacare on a survey such as this is instrumental behaviour. If the squeaky wheel gets the grease, not squeaking might result in some of the current grease being taken away. Thus, people who can probably afford drugs may have reported that they could not afford them, or that the cost of Pharmacare was too high.

A complicating factor is that over time Pharmacare costs have escalated dramatically and people's perceptions of affordability are seen in a comparative perspective. It may also be that seniors are more concerned about potential future prescription drug costs rather than their current ability to pay for them.

H. Factor Analysis of Non-Compliance Items

Factor analysis is a data reducing technique which strives to simplify people's responses on a set of questions to a more manageable number of "factors". A standard, principal components, factor analysis with varimax rotation was applied to the seven non-compliance questions employed in this questionnaire. The results are shown in Table S12. Two factors were extracted. The first accounted for 43% of the variance in all the items, and the second an additional 18%. In other words, by using just these two factors, we can account for 61% of the variance in all 7 of the non-compliance items. This is a good result.

What are these factors? The varimax rotation aids the researcher in interpreting what these factors mean, and in addition ensures that these factors are statistically independent of each other, so they are not measuring related factors. The rotated component matrix shows the factor loadings, or correlation between each factor (identified as component 1 and component 2) and each of the non-compliance items. The factor loadings are the key to interpreting what each factor means. It helps if the loadings that are high for one factor are low for the other(s). Table S12 shows an almost classic result for ease in interpreting what the factors mean.

Factor one loads heavily on choosing not to refill, choosing not to fill, delaying filling a prescription and slightly less highly on choosing to stop a prescription. I interpret this factor to measure filling non-compliance. Factor two loads heavily on choosing to reduce how often drugs are taken and choosing to reduce the dose, and slightly less highly on choosing to substitute a prescription drug with an OTC one. I interpret this factor to measure prescription adjustment behaviour.

In short, the technique of factor analysis has shown that there are really only two major patterns of non-compliance. One relates to intentionally not filling a prescription, delaying filling one, or not refilling a prescription. The other refers to adjusting a prescription. As we noted in section D above, those who adjust prescriptions generally are likely to do this more than once, so this would be more of a consistent pattern of behaviour. Those who intentionally do not fill a prescription are likely to do this only once, so not filling seems more contingent on the unique circumstances of a particular case

I. Demographic Correlates of Filling Non-Compliance

For every respondent in the sample, a score was calculated for both filling non-compliance and adjustment non-compliance. To examine what demographic variables were associated with each of these factors, a one-way analysis of variance was carried out. This simply compares the average factor score for each category of the demographic variable and assesses if the averages are significantly different from each other. Table S12 shows the results of this analysis. Marital status, living arrangement, ethnic category and participation in Pharmacare were associated with filling non-

compliance, and marital status and participation in Pharmacare were associated with adjustment non-compliance.

Table S13.1 through S13.4 and the corresponding charts provide details of the relationship between demographic variables that are significantly related to filling non-compliance. The charts, which plot the mean or average filling non-compliance scores for different categories of the demographic variables are especially valuable for examining the relationships. Chart S13.1 shows that the relationship between marital status and filling non-compliance is as seen previously with any non-compliance. Those married are less non-compliant. The small number of divorced or separated participants are especially non-compliant. For living arrangement (Chart S13.2), the least non-compliant are those living with their spouse or partner. Those living by themselves are more non-compliant, but those living with other family members or with non-family members are the most non-compliant.

There were two surprises produced in looking at demographic correlates of filling non-compliance. First, in Table S13.3 it appears that, compared to those of British or French/Acadian background, seniors who indicated some other European ethnic background had much higher filling non-compliance scores. This may indicate that there is some propensity for such people to be skeptical about filling prescriptions issued by health professionals. However, there are only a small number of such seniors in our sample. The other important finding is that those who are not Pharmacare participants are <u>less</u> likely to engage in filling non-compliance, as indicated by their lower average scores in the Table/Chart 13.4. At first glance, this may seem counter intuitive. After all, those who have to pay for their own prescriptions arguably might be less likely to have them filled, for financial reasons. However, this finding would seem to make sense if one assumes that people who go to the trouble of obtaining a prescription but have to pay for their prescription drugs out of their own pocket are likely to follow the drug regimen quite closely. The suggestion here is that these would be seen as necessary drugs, and not filling a prescription would be seen as dangerous to one's health.

J. Demographic Correlates of Adjustment Non-Compliance

Table S14 provides details of the statistically significant relationships between demographic variables and adjustment non-compliance. Again, for marital status, separated and divorced women are especially non-compliant. Married and widowed persons are about equally non-compliant. Surprisingly, never married women are even less likely to adjust prescriptions than married persons.

The most interesting finding from this table, however, is that seniors who are not covered by Pharmacare are more likely than those covered to adjust prescriptions. How is this reconcilable with the finding that they are less likely to be non-compliant in terms of filling prescriptions? This finding seems to make sense if we assume that in general, such people want to get as much benefit as possible from their expenditure for drugs and so adjust the prescriptions where possible. You will recall that adjusting

prescriptions seems to be more of a consistent pattern of behaviour than not filling. In addition, it should be kept in mind that filling and adjustment non-compliance were constructed to be independent factors. In short, the most plausible explanation is that those who do not belong to Pharmacare tend to adjust prescriptions in general, but when they have a prescription for a drug they deem as necessary, they comply with filling and refilling the prescription.

K. Regression Analysis of Factors Associated with Non-Compliance

Many of the variables found to be associated with non-compliance are correlated among themselves. For female seniors in particular, non-married status is associated with low income and living alone. Even with social welfare nets in place in Nova Scotia, the vast majority of seniors who are under the low income cut off are female. Do the factors mentioned as correlates of non-compliance (predictor variables) exert an influence independently of each other? One way of examining this is to use the regression procedure. Stepwise linear regression selects the predictor variable most closely related to a dependent variable, then examines the remaining variables to see if they add independently to the variance explained of the dependent variable. As most of our predictor variables were nominal (i.e. were in unranked categories), they were represented by a series of dummy variables. The residual category for marital status was married, for living arrangement was living with spouse or partner, for ethnicity was British, and for Pharmacare participation was participant.

All of the variables found to be significantly related to filling non-compliance in Table S12 were entered as dummy variables in the regression on filling non-compliance. The results indicated that being of European ethnicity significantly affected filling non-compliance, and when this effect was removed, Pharmacare participation still significantly and independently affected non-filling participation. The remaining variables were not significantly related to filling non-compliance when the effect of these two variables was removed.

The linear regression of adjustment non-compliance employed only dummy variables representing categories of marital status and Pharmacare participation. The results indicated that being divorced or separated significantly affected adjustment. The effect of Pharmacare participation independent of marital status was found to be just below the threshold for statistical significance (p=.069).

This analysis indicates that ethnicity and Pharmacare participation exert independent effects on filling non-compliance and are not part of the constellation of marital status and living arrangement. Likewise, Pharmacare participation is close to exerting an effect on adjustment non-compliance which is independent of marital status.

L. A Special Analysis of the Health Benefits of Being Married or Living Common Law and Living with One's Spouse/Partner

As noted in the previous section, marital status and current living arrangement affect many of the variables that measure health and prescription drug-related outcomes. A

common thread through our findings was that for our sample of seniors, those who are married or living common law and those living with their spouse or partner were less likely to be non-compliant in their use of prescription drugs. In this section, we compare a number of health and behavioural differences between two groups: those who are married/living common law and living with their spouse and partner, and all others. In order to simplify the presentation of data, people in the first group are referred to as to as coupled, and those in the second group are referred to as non-coupled. Table S15.1 shows the average scores along a number of outcomes for each of the two groups and indicates whether the averages are significantly different.

For the entire sample, coupled individuals have significantly fewer chronic medical conditions, have used significantly fewer prescription drugs, have significantly lower overall counts of non-compliant behaviour and have significantly lower filling non-compliance scores than non-coupled individuals. The adjustment non-compliance scores were not significantly different.

Do the benefits of being coupled extend to females? Table S15.2 shows that most of the benefits are indeed relevant for coupled females. Coupled females have significantly fewer medical conditions, use significantly fewer prescription drugs, and have marginally significantly lower overall counts of non-compliance and filling compliance scores than non-coupled females. Because of the smaller sample size, the significance figures are less likely to be statistically significant, although the substantive differences in averages look to be about the same as in the whole sample. Just as for the entire sample, coupled females do not have significantly different adjustment compliance scores from non-coupled females.

Table S15.3 shows the health benefits of being coupled when males only are considered. Because of the much smaller sample of males, many of the differences in means between the coupled and non-coupled males are not statistically significant. However, the pattern is for coupled males to have fewer chronic medical conditions, use fewer prescription drugs and have lower overall counts of non-compliance than non-coupled males. Perhaps the biggest surprise, however, is that males who are part of a couple do not score significantly lower in filling non-compliance, but they score very much lower in adjustment non-compliance than those who are not part of a couple living together.

Are the differences between those who are married/common law and living with their spouse or partner largely due to the higher incomes of such individuals? To test part of this proposition, we examined a series of tables. Table S15.4 shows that, for the entire sample, coupled individuals are about 11% less likely to be non-compliant than non-coupled persons, a strongly statistically significant finding. What happens when we compare only those of roughly the same income level? If the relationship between being coupled or not and non-compliance was due to income, we would expect the 11% difference to reduce, or disappear altogether. After all, we would be comparing people who were about equal on the variable of income, which we expected to have

caused the difference. Table S15.5 shows the relationship for those people who have incomes under $30,000. Instead of reducing, the percentage difference has almost doubled to about 20%. On the other hand, for those whose income was $30,000 and over, the percentage difference has almost disappeared to a scant 1%, and this difference is not statistically significant. What does this mean? First, it is clear that the relationship between being coupled (or not) and non-compliance is not simply due to the higher incomes of those who are married and living with their spouse. This table shows that there is a conditional relationship. For those with incomes of $30,000 and over, there is no difference in non-compliance rates between the two groups. However, for those with incomes less than $30,000 and who are married/living common law and living with their spouse or partner, they are much less likely to be non-compliant than others.

If income does not directly account for the relationship between being coupled and non-compliance, what does? It is clear that additional analysis of this, and other data needs to be done. Sociological studies have consistently pointed out the health and longevity advantages of being married. Many would agree that our physical health and well-being are closely linked to our social and emotional well being. Having a spouse or partner likely also has instrumental advantages in terms of helping keep each other healthy. In our study, for men, having a spouse or partner seems to help in reducing the amount of adjustment non-compliance. In this age cohort, women have traditionally taken care of the family, and this may extend in older age to taking care of their spouse or partner, including making sure the right amounts of prescription drugs are taken at the right time. For women, having a spouse or partner seems to result in less filling non-compliance. The scenario that comes to mind is that the spouse or partner may help ensure that the prescriptions needed by the woman are filled and refilled as necessary. At any rate, it is clear that a simplistic view that the advantage of being married or living common law and living with one's spouse/partner in terms of intentional prescription drug non-compliance is due to income, is not supported by our data.

2.2.3 Nova Scotia Seniors' Pharmacare Program

The survey included several questions querying opinions about the Pharmacare Program. These were asked of the 82.4% of the sample who were members of Pharmacare (see Table S2.9). As there were no significant sex differences, only sample frequencies are shown. Table S16.1 shows that the majority of the sample was somewhat familiar with the Pharmacare Program, with about one third being very familiar with it. Only 6% said they were not at all familiar with Pharmacare and its policies. This result is understandable in that every time an individual obtains a prescription, he/she is reminded of the co-pay at the very least, and about 90% of the sample had a prescription filled within the past four weeks of the survey.

When asked "Taking into consideration your use of Pharmacare, your yearly premium (if any), and the co-pay requirement, do you feel that the cost of Pharmacare for you is far too high/a little too high/about right/ a little too low/far too low?", respondents answered as shown in Table S16.2. The most common answer was a little too high, with about

one-fifth saying the cost was far too high, and one-third saying the cost was about right. Only a handful said the cost was a little too low, or far too low. As suggested earlier, few people responded in such a way that might result in an increase in Pharmacare costs. The overwhelming majority seemed to think the cost was about right or a little too high, suggesting that seniors are grateful to be receiving the benefits that they are getting from Pharmacare. It is hard to interpret what having only one-fifth of seniors indicating the costs are far too high means. There is certainly evidence in this study to indicate that people with lower incomes are much more likely to intentionally not comply with a prescription. For these people, any significant cost for prescription drugs may be unaffordable.

What about the coverage of drugs under the Pharmacare Program, or the Formulary? Table S16.3 shows that the majority of seniors participating in Pharmacare indicated that they were somewhat satisfied with the coverage (59%). About equal numbers were either very satisfied (24%), or not all satisfied (17%). Again, about one in five were not at all satisfied.

2.2.4 Advocacy

There were a few questions in the survey that were intended to discern respondents' opinions about the effectiveness of various seniors' organizations in influencing government policy about prescription drug use. Table S17.1 shows that three-fifths of the sample belonged to an organization which had tried to influence the government on Pharmacare policy. This is not surprising as 87.5% of the sample belonged to a seniors' organization listed by the Nova Scotia Senior Citizens' Secretariat. How influential were these organizations? We asked respondents to indicate on a scale of 1 through 5 how influential the organization(s) was/were. Table S17.2 indicates a broad range of opinions with 40% selecting the centre point of 3, with slightly more selecting the less influential end of the scale than the more influential end. This disparity of opinion may reflect the different nature of each of the seniors' organizations from which the bulk of the sample was drawn.

It is interesting to compare the perceived influence of the organizations to which seniors belonged to the levels of individual influence felt by respondents. Table S17.3 indicates that over 85% of the sample strongly agreed or agreed with the statement that "people like me have very little influence on government prescription drug policies". Only 10% disagreed, and 3% strongly disagreed with this statement. By and large, seniors in the sample felt individually relatively powerless. Their opinions of the ability of organizations to influence government policy is substantially more positive. One should keep in mind, however, that this is a sample in which the overwhelming majority belonged to at least one seniors' organization and thus may be more positively disposed towards the effectiveness of these organizations.

2.3 Summary of Survey Report

METHOD AND SAMPLE CHARACTERISTICS

- a survey questionnaire was developed and distributed to seniors in Nova Scotia who, for the most part, belonged to seniors clubs listed in the directory distributed by the Senior Citizens' Secretariat. A sample of 424 seniors was obtained.
- the sample somewhat over represented females, those aged 74-85, widowed persons, people living alone, Pharmacare participants, and those with higher incomes.
- the sample substantially over represented people with higher levels of education and those from rural and smaller communities.

STAYING HEALTHY

- women reported better general health than men, and less concern about their health
- common chronic conditions for both men and women were hypertension, arthritis, cardiovascular conditions and diabetes. Men were more likely to report a cardiovascular condition, but women were more likely to report high blood pressure, arthritis and osteoporosis.
- exercising regularly and taking vitamins or food supplements were the most common ways of staying healthy. Women were more likely to take vitamins or food supplements.
- "staying active" was reported as a health related activity by 10% of the sample, primarily by men

USE OF PRESCRIPTION DRUGS AND OTHER MEDICATIONS

- about 9 out of 10 men and women reported taking at least one prescription drug in the past four weeks and the average number of prescription drugs taken was about four for both men and women. The average cost for Pharmacare participants was around $45 per month and around double that for non-Pharmacare participants.
- slightly more than half the women and slightly less than half the men took an over-the-counter drug during the past four weeks, with the cost being around $15 for both sexes.
- almost everyone in the sample (99%) usually used the same drug store or pharmacy to fill their prescriptions. Obtaining prescription drugs from other sources was rare.
- the most important reasons for choosing one drug store were the instrumental ones such as the store staff were informative or helpful, or they knew the respondent's medical or drug history. Women were more influenced by interpersonal relationships such as the friendliness of the staff. Overall, men were less likely to indicate that any reason was as important as women indicated. The dispensing fee charged was the least important reason, especially for men, but it

should be noted that a majority of the sample still felt that this was a "very important" reason.

- over one-third of the sample forgot to take their medication on time at least once over the past month. The major memory aid for both men and women was to take their medication with meals, or at the same time each day.
- about 1/4 of the sample (23%) indicated at least one instance of non-compliance in the past year.
- the presence of side effects was the most important reason for non-compliance, except for those who delayed filling the prescription, for whom cost was the most important reason
- those who were not married/living common law, those not living with their spouse or partner, and those receiving less than $15,000 per year were more likely to be non-compliant at least once.
- non-compliance has two major dimensions. One relates to non-compliance by not filling, not refilling or delaying obtaining a prescription. The other relates to adjusting a prescription by reducing the dose or reducing how often the medication is taken. These behaviours were not related to each other.
- the most consistent pattern of demographic correlates of intentional non-compliance found in this study was that people who were not married, and those who were separated or divorced, were more likely to be non-compliant both in terms of filling and adjusting a prescription. The mirror image of this finding is that people who were married/common law and living with their spouses/partners were the least non-compliant.
- there are other strong indications that the cost of drugs affects intentional non-compliance. Those in the lowest income category are much more likely than those in higher categories to show at least one instance of prescription drug non-compliance. In addition, those not on Pharmacare, who pay for their own prescription drugs, are more likely to adjust prescriptions. However, they are less likely than those participating in Pharmacare to be non-compliant in filling their prescriptions.
- the analysis of the effect of income-related variables on intentional non-compliance is complicated by the fact that subjective responses to the affordability of prescription drugs were not related to non-compliance.
- people who were married/common law and living with their spouses/partners have fewer medical conditions, use prescription drugs less, and are less non-compliant than others. These findings are true for both males and females.
- the lower non-compliance rates of coupled persons compared to non-coupled persons is not due to differences in income. Indeed, the relative advantage of being part of a couple are especially strong for those whose incomes are lower. Additional research needs to be done to examine how marital status and income interact in their effects on health-related outcomes, including non-compliance.

THE NOVA SCOTIA SENIORS PHARMACARE PROGRAM

- almost all seniors were somewhat or very familiar with the Pharmacare Program.
- while very few said the cost of Pharmacare was too low, only 1 in 5 said it was far too high. There was a greater degree of satisfaction with the coverage of drugs within the Formulary of the Pharmacare Program, but again, 1 in 5 indicated strong dissatisfaction.

ADVOCACY

- 3 out of 5 people within the sample belonged to an organization which tried to influence government prescription drug policy, but most said the organization(s) were moderately influential.
- individually, the overwhelming majority of respondents felt they had little or no influence on government prescription drug policies

TABLE S1
A COMPARISON OF THE BREAKDOWN OF THE NOVA SCOTIA SENIORS POPULATION AND THE SAMPLE, BY COUNTY

COUNTY	PERCENT OF NS SENIORS POPULATION	PERCENT OF SAMPLE
ANNAPOLIS	3.3%	1.9%
ANTIGONISH	2.0%	4.6%
CAPE BRETON	13.8%	6.5%
COLCHESTER	5.8%	6.5%
CUMBERLAND	4.8%	4.3%
DIGBY	2.8%	3.6%
GUYSBOROUGH	1.5%	6.3%
HALIFAX	31.2%	17.9%
HANTS	4.0%	4.1%
INVERNESS	2.3%	3.9%
KINGS	6.5%	5.6%
LUNENBERG	6.6%	5.1%
PICTOU	5.9%	5.3%
QUEENS	1.7%	6.3%
RICHMOND	1.45%	7.7%
SHELBURNE	2.0%	3.1%
VICTORIA	1.0%	3.4%
YARMOUTH	3.4%	3.9%
TOTAL- NOVA SCOTIA	**100%**	**100%**

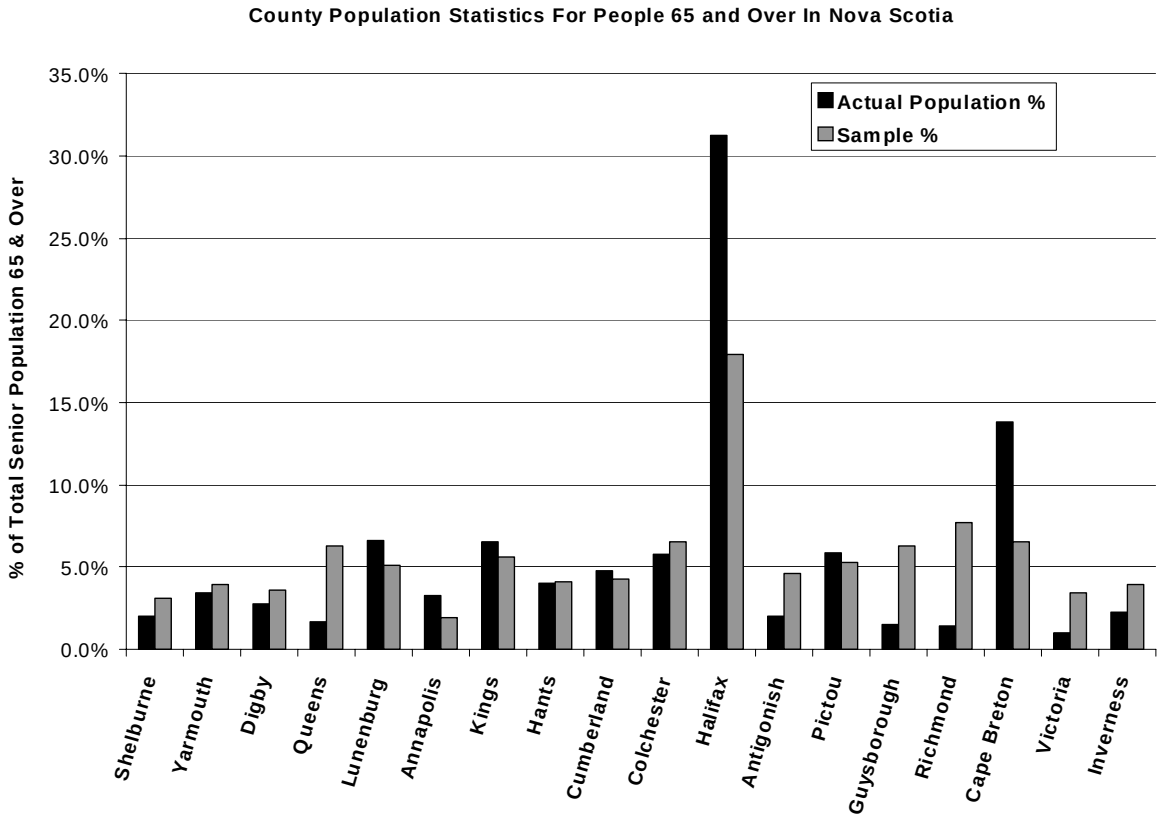

County Population Statistics For People 65 and Over In Nova Scotia
% of Total Senior Population 65 & Over
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Actual Population %
Sample %
Shelburne
Yarmouth
Digby
Queens
Lunenburg
Annapolis
Kings
Hants
Cumberland
Colchester
Halifax
Antigonish
Pictou
Guysborough
Richmond
Cape Breton
Victoria
Inverness

TABLE S2
COMPARISON OF POPULATION AND SAMPLE

VARIABLE	CATEGORY	PERCENT OF POPULATION	PERCENT OF SAMPLE	VALID CASES	MISSING CASES
2.1 SEX	Female	58.3%	74.3%		
	Male	41.7%	25.7%		
	Total	100.0%	100.0%	417	7
S2.2 AGE	65-74	52.8%	44.9%		
	75-84	34.9%	42.5%		
	85 and older	12.2%	12.5%		
	Total	100.0%	100.0%	404	15
S2.3 MARITAL STATUS	Never married	7.0%	5.1%		
	married, common law	54.0%	45.9%		
	divorced, separated	5.3%	3.4%		
	widowed	33.6%	45.6%		
	Total	100.0%	100.0%	410	14
S2.4 EDUCATION	elementary	28.7%	8.4%		
	some/completed high school	46.9%	54.5%		
	some post-secondary	18.4%	27.0%		
	university	5.6%	10.1%		
	Total	100.0%	100.0%	404	20

TABLE S2 CONTINUED
COMPARISON OF POPULATION AND SAMPLE CONTINUED

VARIABLE	CATEGORY	PERCENT OF POPULATION	PERCENT OF SAMPLE	VALID CASES	MISSING CASES
S2.5 LIVING WITH	alone	29.5%	41.1%		
	partner, no children	59.0%	43.8%		
	other family members	9.9%	9.5%		
	other	1.7%	6.7%		
	Total	100.0%	100.0%	411	13
S2.6 TYPE COMMUNITY	rural/ unincorporated		36.6%		
	village		26.1%		
	town		20.2%		
	suburb		8.3%		
	central city		8.8%		
	Total		100.0%	410	14
S2.7 INCOME	less than $15,000		24.6%		
	$15,000 - $29,999		46.0%		
	$30,000 - $44,999		19.1%		
	$45,000 - $59,999		5.4%		
	$60,000 or more		4.9%		
	Total		100%	350	74

TABLE S2 CONTINUED
COMPARISON OF POPULATION AND SAMPLE CONTINUED

VARIABLE	CATEGORY	PERCENT OF POPULATION	PERCENT OF SAMPLE	VALID CASES	MISSING CASES
S2.8 RECEIVE GIS?	yes	45.0%	40.9%		
	no	55.0%	59.1%		
	Total	100.0%	100.0%	389	35
S2.9 PHARMACARE COVERAGE?	yes	74%	82.4%		
	no	26%	17.8%		
	Total	100.0%	100.0%	398	26
S2.10 ETHNICITY	English		28.6%		
	Scottish		16.0%		
	British non-specified		13.9%		
	French/ Acadian		9.9%		
	European		9.5%		
	Black		1.7%		
	Canadian		14.6%		
	White		5.8%		
	Total		100.0%	294	130

TABLE S3.1
COMPARATIVE HEALTH OF SENIORS BY SEX

CATEGORY	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
excellent, very good	42.4%	28.0%	
good	40.7%	44.9%	
fair, poor	16.8%	27.1%	
n	297	107	.012

TABLE S3.2
COMPARATIVE HEALTH CONCERN BY SEX

CATEGORY	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
much more	8.9%	19.6%	
more	24.2%	27.1%	
equal	55.3%	47.7%	
less, much less	11.6%	5.6%	
n	302	107	.009

TABLE S3.3
CHRONIC MEDICAL CONDITIONS BY SEX

CONDITION	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
HYPERTENSION/BLOOD PRESSURE	64.8%	52.2%	.001
ARTHRITIS	44.3%	27.2%	.004
CARDIOVASCULAR/HEART	21.9%	31.9%	.001
DIABETES	19.3%	20.7%	not significant
OSTEOPOROSIS	20.7%	4.3%	.000
GLAUCOMA	9.6%	10.9%	not significant
OTHER - HIGH CHOLESTEROL	6.8%	7.5%	not significant
OTHER – THYROID	7.7%	2.8%	not significant
KIDNEY	3.0%	5.4%	not significant

TABLE S3.4
NUMBER OF CHRONIC MEDICAL CONDITIONS BY SEX

NUMBER OF CONDITIONS	FEMALES	MALES	STATISTICAL SIGNIFICANCE
None	13.3%	13.1%	
1	22.0%	25.2%	
2	35.3%	36.4%	
3	14.6%	15.9%	
4 or more	14.9%	9.3%	
Total	309	107	not significant
MEAN # OF CONDITIONS	2.06	1.89	not significant
STANDARD DEVIATION	1.45	1.27	not significant

TABLE S3.5
AVERAGE NUMBER OF CHRONIC MEDICAL CONDITIONS BY AGE

CATEGORY	MEAN	STANDARD DEVIATION	N OF CASES	STATISTICAL SIGNIFICANCE
65-69	1.90	1.19	82	
70-74	1.97	1.49	102	
75-79	1.91	1.43	88	
80-84	1.98	1.30	85	
85 and older	2.59	1.68	51	
Total	2.02	1.42	408	.049

TABLE S3.6
WAYS OF STAYING HEALTHY AMONG SENIORS, BY SEX

VARIABLE	CATEGORY	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
EXERCISE REGULARLY				
	Yes	53.6%	57.0%	
	n	293	100	not significant
TAKE VITAMINS OR FOOD SUPPLEMENTS				
	Yes	60.1%	40.0%	
	n	293	100	.001
FOLLOW A SPECIAL DIET				
	Yes	23.9%	17.0%	
	n	293	100	not significant
KEEP ACTIVE (written in as part of "other" response)				
	Yes	4.8%	10.3%	
	n	310	107	.045

TABLE S4: PRESCRIPTION DRUG USE IN PAST 4 WEEKS BY SEX

VARIABLE	CATEGORY	% OF FEMALES	% OF MALES	STATISTICAL SIGNIFICANCE
TABLE S4.1 TOOK PRESCRIPTION DRUG IN PAST 4 WEEKS				
	Yes	90.4%	89.4%	
	n	292	104	not significant
TABLE S4.2 NUMBER OF PRESCRIPTION DRUGS TAKEN				
	1 or 2	29.5%	28.3%	
	3 or 4	31.6%	32.3%	
	5 or more	38.9%	39.4%	
	n	288	99	not significant
TABLE S4.3 NUMBER OF TIMES PER DAY PRESCRIPTION DRUGS TAKEN				
	1	26.2%	22.8%	
	2	35.6%	31.7%	
	3	16.8%	20.8%	
	4	6.0%	6.9%	
	5 or more	15.4%	17.8%	
	n	299	101	not significant
TABLE S4.4 AVERAGE COST[34] OF PRESCRIPTION DRUGS LAST MONTH				
	pharmacare - yes	$43.41	$44.80	not significant
	standard deviation	$55.16	$62.67	
	n	298	64	
	pharmacare - no	$69.19	$131.40	not significant
	standard deviation	$95.00	$189.37	
	n	31	18	

[34] Estimates based on expenditures as reported by respondents and thus subject to recall problems and by extreme cases.

TABLE S5
OVER-THE-COUNTER DRUG USE IN PAST 4 WEEKS BY SEX

VARIABLE	CATEGORY	% OF FEMALES	% OF MALES	STATISTICAL SIGNIFICANCE
TABLE S5.1 TOOK OTC DRUG IN PAST 4 WEEKS				
	yes	55.8%	43.6%	
	n	278	101	.036*
TABLE S5.2 NUMBER OF OTC DRUGS TAKEN				
	1	52.7%	64.7%	
	2	31.7%	23.5%	
	3 or more	15.6%	11.8%	
	n	167	51	not significant
TABLE S5.3 AVERAGE COST OF OTC DRUGS LAST MONTH				
	average	$14.82	$17.21	
	standard deviation	$12.03	$17.91	
	n	144	47	not significant

TABLE S6
PATTERNS OF PRESCRIPTION FILLING

VARIABLE	CATEGORY	% OF SAMPLE	N
S6.1 DIFFERENT DOCTORS WHO ISSUED PRESCRIPTIONS IN LAST 4 WEEKS			361
	One	79.2%	
	Two	17.5%	
	Three or more	3.3 %	
S6.2 FILLED PRESCRIPTION AT DRUG STORE			
	Yes	92.6%	361
S6.3 DOCTOR SUPPLIED MEDICATION			
	Yes	3.7%	376
S6.4 MAIL ORDER OR INTERNET			
	Yes	0%	375
S6.5 OBTAINED FROM FRIEND OR RELATIVE			
	Yes	0%	375
S6.6 SUPPLIED BY MEDICAL CARE/NURSING HOME FACILITY			
	Yes	0.5%	375
S6.7 USUALLY OBTAINED MEDICATIONS FROM SAME DRUG STORE			
	Yes	98.9%	376

TABLE S7
REASONS FOR USING SAME DRUG STORE BY SEX

VARIABLE	CATEGORY	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
CONVENIENT LOCATION, DELIVERY SERVICE, REFILL SERVICE				
	very important	85.7%	69.5%	
	n	280	95	.001
DRUGSTORE/PHARMACIST KNOWS MY MEDICAL/DRUG HISTORY				
	very important	87.0%	75.0%	
	n	276	96	.006
DRUGSTORE HAS A REASONABLE DISPENSING FEE				
	very important	70.7%	49.5%	
	n	263	91	.000
DRUGSTORE/PHARMACIST IS INFORMATIVE/HELPFUL ABOUT PRESCRIPTIONS				
	very important	94.6%	82.3%	
	n	279	96	.000
DRUGSTORE STAFF/PHARMACIST IS FRIENDLY				
	very important	88.0%	74.5%	
	n	274	94	.002

TABLE S8
FORGETTING MEDICATION AND MEMORY AIDS BY SEX

VARIABLE	CATEGORY	% OF FEMALES	% OF MALES	CHI SQUARE SIGNIFICANCE
S8.1 FREQUENCY OF FORGETTING TO TAKE MEDICATION ON TIME IN PAST 4 WEEKS				
	none	66.9%	61.7%	
	once	15.3%	16.0%	
	twice	14.6%	17.0%	
	three or more times	3.2%	5.3%	
	n	281	94	not significant
S8.2 DOES SOMEONE HELP YOU TAKE MEDICATION ACCORDING TO PRESCRIPTION?				
	yes	4.3%	8.6%	
	n	278	93	not significant
S8.3 TAKE MEDICATION WITH MEALS OR AT SAME TIME EACH DAY				
	yes	90.5%	80.4%	
	n	284	94	not significant
S8.4 USE DOSAGE CALENDAR, REMINDER CHART, MEDICATION ORGANIZER				
	yes	20.8%	18.1%	
	n	284	94	not significant
S8.5 USE BLISTER PACK				
	yes	4.9%	7.4%	
	n	284	94	not significant
S8.6 OTHER REMINDER AID				
	yes	4.6%	4.3%	
	n	284	94	not significant

TABLE S9.1
RATES OF NON-COMPLIANCE WITH PRESCRIPTIONS: INDIVIDUAL ITEMS

VARIABLE	never	once	more than once	N
CHOSE NOT TO FILL PRESCRIPTION	93.7%	5.6%	0.8%	395
CHOSE TO STOP TAKING PRESCRIBED DRUG	86.3%	11.6%	2.1%	387
CHOSE NOT TO REFILL A PRESCRIPTION	92.0%	7.5%	0.5%	389
CHOSE TO DELAY FILLING A PRESCRIPTION	93.3%	5.0%	1.7%	404
CHOSE TO REDUCE THE DOSE OF PRESCRIBED DRUG	89.8%	5.2%	5.0%	403
CHOSE TO REDUCE HOW OFTEN A DRUG WAS TAKEN	90.5%	5.0%	4.5%	401
CHOSE TO SUBSTITUTE WITH OTC DRUG	97.8%	1.2%	1.0%	401

TABLE S9.2
BREAKDOWN OF SAMPLE BY COUNT OF DIFFERENT TYPES OF NON-COMPLIANCE

COUNT OF DIFFERENT TYPES OF NON-COMPLIANCE	NUMBER	PERCENT
No non-compliance	325	76.7%
One type of non-compliance	41	9.7%
Two types of non-compliance	23	5.4%
Three types of non-compliance	15	3.5%
Four types of non-compliance	12	2.8%
Five types of non-compliance	4	0.9%
Six types of non-compliance	4	0.9%

TABLE S9.3
RESPONDENTS WITH ANY NON-COMPLIANCE WITH PRESCRIPTIONS

RESPONDENTS	NUMBER	PERCENT
NON-COMPLIANCE	99	23.3%
COMPLIANCE	325	76.7%
N	424	100%

TABLE S10
PERCENTAGE CITING REASON FOR NON-COMPLIANCE AS "VERY IMPORTANT" FOR EACH TYPE OF NON-COMPLIANCE

	MY CONDITION IMPROVED	THERE WERE SIDE EFFECTS	MEDICA-TIONS INEFFEC-TIVE	MEDICA-TIONS TOO EXPEN-SIVE
TYPE OF NON-COMPLIANCE				
Chose not to fill prescription	52.9%	73.3%	56.3%	58.8%
Chose to stop taking prescribed drug	48.4%	77.1%	48.3%	42.4%
Chose not to refill a prescription	43.5%	77.3%	47.6%	45.8%
Chose to delay filling a prescription	45.0%	65.0%	40.0%	66.7%
Chose to reduce the dose of prescribed drug	53.3%	59.4%	48.3%	43.8%
Chose to reduce how often a drug was taken	50.0%	58.8%	36.7%	37.5%
Chose to substitute with over the counter drug	2/7	5/7	4/6	3/7

TABLE S11.1
ANY NON-COMPLIANCE BY LIVING ARRANGEMENT

	live alone	with partner, no children	with other family members	with non family members	Seniors' residence	Chi Square probability
non-compliant	28.4%	16.1%	25.6%	61.5%	0.0%	.001
n	169	180	39	13	5	

TABLE S11.2
ANY NON-COMPLIANCE BY MARITAL STATUS

	never married	married, common law	divorced. separated	widowed	Chi Square probability
non-compliant	28.6%	17.6%	50.0%	26.2%	.016
n	21	188	14	187	

TABLE S11.3
ANY NON-COMPLIANCE BY INCOME

	less than $15,000	$15,000 - $44,999	$45,000 or more	Chi Square probability
non-compliant	31.4%	22.8%	11.1%	.048
n	86	228	36	

TABLE S11.4
ANY NON-COMPLIANCE BY RECEIVING GUARANTEED INCOME SUPPLEMENT

	receive GIS	do not receive GIS	Chi Square probability
non-compliant	26.4%	21.7%	not significant
n	159	230	

TABLE S11.5
ANY NON-COMPLIANCE BY RESPONSES TO "IT'S HARD FOR ME TO AFFORD THE PRESCRIPTIONS DRUGS I NEED"

	strongly agree	Agree	disagree	strongly disagree	Chi Square probability
non-compliant	30.4%	22.1%	24.0%	28.6%	not significant
n	46	136	167	35	

TABLE S11.6
ANY NON-COMPLIANCE BY PERCEPTION OF THE COST OF PHARMACARE FOR PHARMACARE PARTICIPANTS

	far too high	a little too high	about right, a little low, far too low	Chi Square probability
non-compliant	21.7%	25.0%	20.5%	not significant
n	69	132	117	

TABLE S12
FACTOR ANALYSIS OF NON-COMPLIANCE ITEMS

Total Variance Explained

Component	Initial Eigenvalues Total	% of Variance	Cumulative %	Extraction Sums of Squared Loadings Total	% of Variance	Cumulative %
1	2.996	42.798	42.798	2.996	42.798	42.798
2	1.242	17.750	60.547	1.242	17.750	60.547
3	.991	14.163	74.710			
4	.631	9.008	83.719			
5	.498	7.109	90.828			
6	.402	5.746	96.574			
7	.240	3.426	100.000			

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component 1	2
Chose not to fill	.797	5.450E-02
Chose to stop	.531	.373
Chose not to refill	.821	6.002E-02
Chose to delay filling	.721	.210
Chose to reduce dose	.273	.814
Chose to reduce frequency	.281	.826
Chose to substitute with OTC	-5.035E-02	.661

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 3 iterations.

TABLE S13
ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES SIGNIFICANTLY RELATED TO FILLING NON-COMPLIANCE

VARIABLE	CATEGORY	AVERAGE FILLING SCORE	STANDARD DEVIATION	N	ANOVA SIGNIFI-CANCE
13.1 MARITAL STATUS				355	.044
	never married	.174	1.41	18	
	married/ common law	-.142	.683	167	
	divorced, separated	.417	1.07	13	
	widowed	.115	1.21	157	
13.2 LIVING ARRANGEMENT				355	.028
	alone	.006	.974	140	
	with partner/ spouse	-.147	.679	158	
	other family	.311	1.86	35	
	other	.292	1.21	22	
13.3 MAJOR ETHNIC CATEGORY				206	.049
	British	-.009	.757	155	
	French/ Acadian	-.001	.836	27	
	European	.462	2.15	24	

TABLE S13 CONTINUED
ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES SIGNIFICANTLY RELATED TO FILLING NON-COMPLIANCE

VARIABLE	CATEGORY	AVERAGE FILLING SCORE	STANDARD DEVIATION	N	ANOVA SIGNIFI-CANCE
13.4 PHARMACARE PARTICIPANT?				348	.048
	yes	.003	1.06	289	
	no	-.244	.421	59	

CHART S13.1
AVERAGE FILL NON-COMPLIANCE SCORES FOR EACH CATEGORY OF MARITAL STATUS

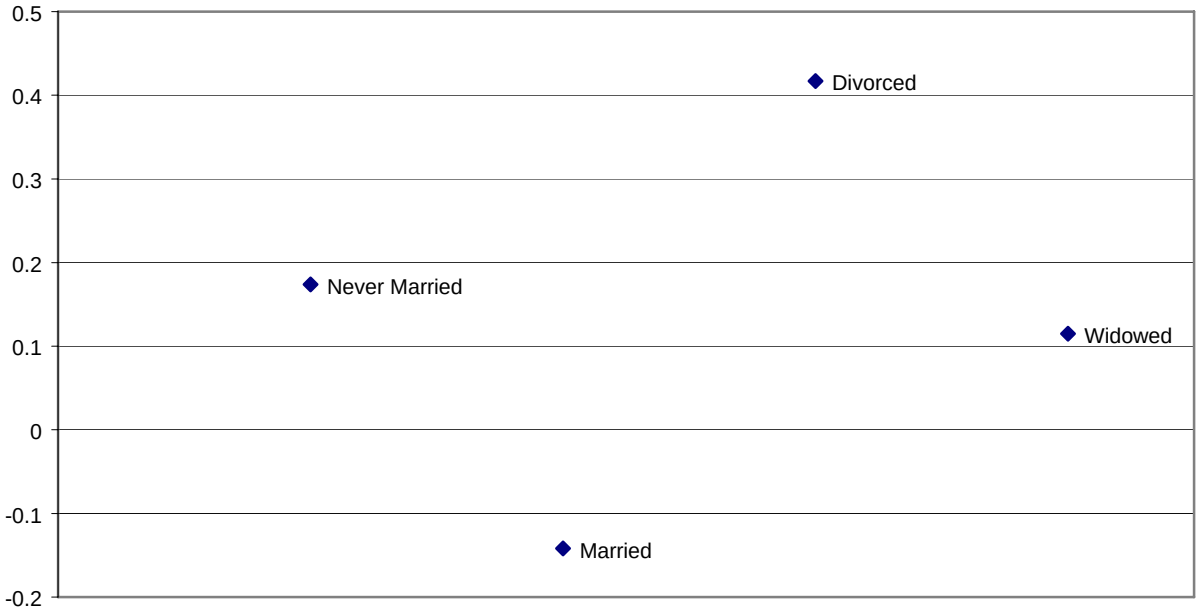


CHART S13.2
AVERAGE FILL NON-COMPLIANCE SCORES FOR EACH CATEGORY OF LIVING ARRANGEMENT

CHART S13.3
AVERAGE FILL NON-COMPLIANCE SCORE FOR EACH MAJOR CATEGORY OF ETHNICITY

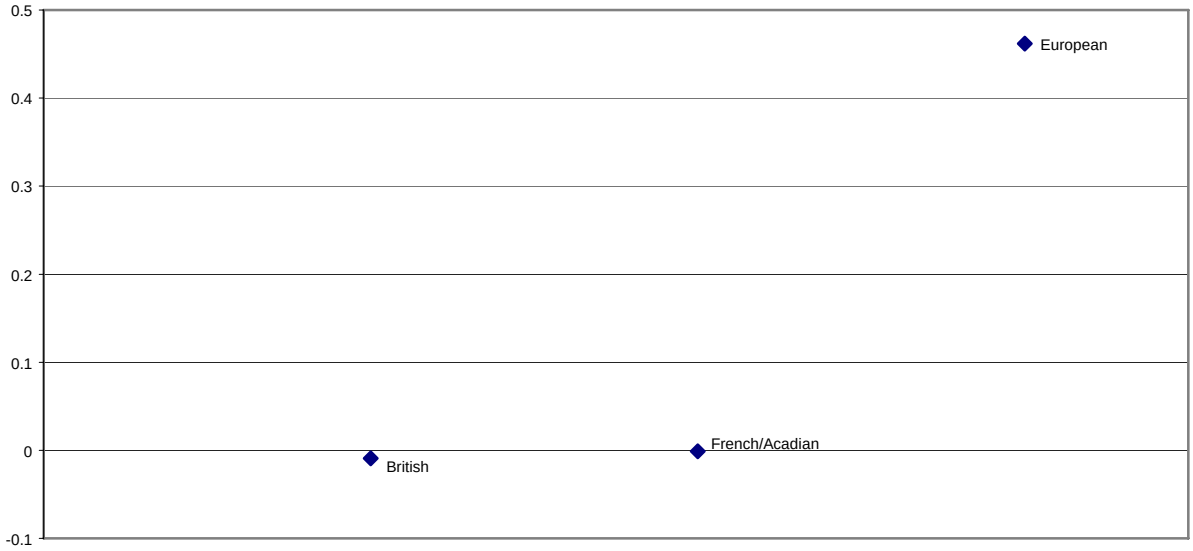


CHART S13.4
AVERAGE FILL NON-COMPLIANCE SCORE FOR PHARMACARE PARTICIPATION

TABLE S14
ANALYSIS OF VARIANCE OF DEMOGRAPHIC VARIABLES SIGNIFICANTLY RELATED TO ADJUSTMENT NON-COMPLIANCE

VARIABLE	CATEGORY	AVERAGE ADJUST-MENT SCORE	STANDARD DEVIATION	N	ANOVA SIGNIFI-CANCE
MARITAL STATUS				355	.009
	never married	-.124	1.06	18	
	Married/ common law	-.007	.777	167	
	divorced, separated	.834	1.86	13	
	widowed	-.003	.944	157	
PHARMACARE PARTICIPANT?				348	.047
	yes	-.006	.896	289	
	no	.205	1.07	59	

CHART S14.1
AVERAGE ADJUSTMENT NON-COMPLIANCE SCORES FOR EACH CATEGORY OF MARITAL STATUS

CHART S14.2
AVERAGE ADJUSTMENT NON-COMPLIANCE SCORE FOR EACH CATEGORY OF PHARMACARE PARTICIPANT

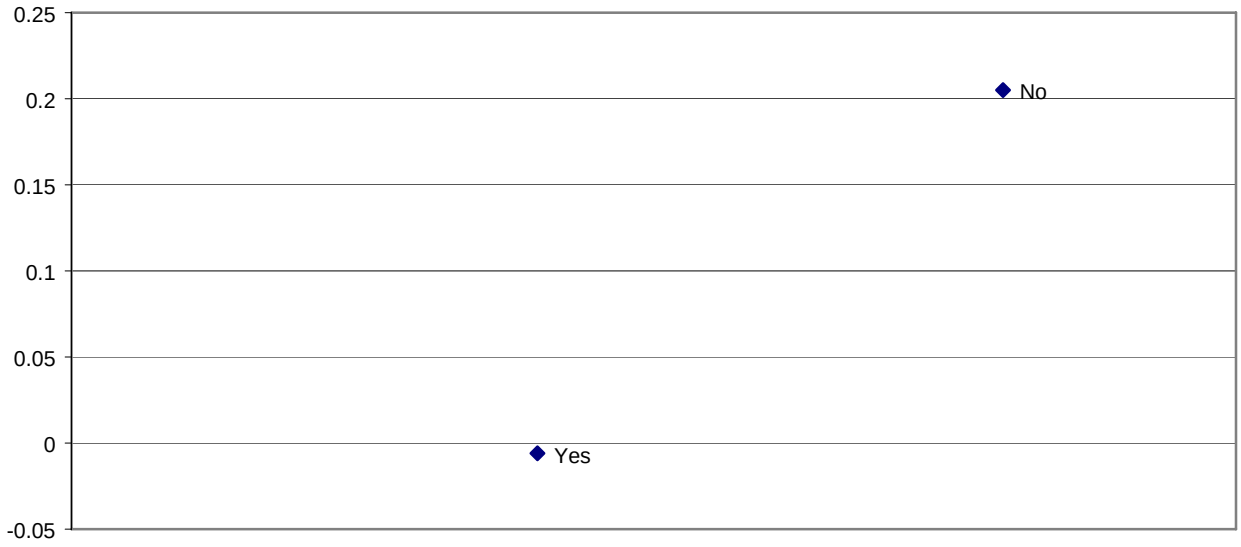


TABLE S15.1
PRESCRIPTION DRUG RELATED OUTCOMES FOR THOSE COUPLED VERSUS OTHERS: ENTIRE SAMPLE[35]

ENTIRE SAMPLE		COUPLED	OTHER	ANOVA SIGNIFI-CANCE
NUMBER OF CHRONIC CONDITIONS	average	1.78	2.17	
	n	173	236	.005
NUMBER OF PRESCRIPTION DRUGS	average	3.73	4.49	
	n	146	208	.005
COUNT OF NON-COMPLIANCE	average	.34	.65	
	n	173	237	.007
FILL NON-COMPLIANCE	average	-.141	.120	
	n	152	203	.016
ADJUSTMENT NON-COMPLIANCE	average	-.105	.046	
	n	152	203	not significant

[35] Coupled denotes a person married or in a common law relationship and who is living with their spouse or partner.

TABLE S15.2
PRESCRIPTION DRUG RELATED OUTCOMES FOR THOSE COUPLED VERSUS OTHERS: FEMALES ONLY[36]

FEMALES ONLY		COUPLED	OTHER	ANOVA SIGNIFI-CANCE
NUMBER OF CHRONIC CONDITIONS	average	1.77	2.19	
	n	93	204	.019
NUMBER OF PRESCRIPTION DRUGS	average	3.26	4.48	
	n	77	183	.013
COUNT OF NON-COMPLIANCE	average	.34	.65	
	n	93	205	not significant
FILL NON-COMPLIANCE	average	-.124	.160	
	n	83	177	.053
ADJUSTMENT NON-COMPLIANCE	average	-.080	-.027	
	n	83	177	not significant

.[36] Coupled denotes a person married or in a common law relationship and who is living with their spouse or partner.

TABLE S15.3
PRESCRIPTION DRUG RELATED OUTCOMES FOR THOSE COUPLED VERSUS OTHERS: MALES ONLY[37]

MALES ONLY		COUPLED	OTHER	ANOVA SIGNIFI-CANCE
NUMBER OF CHRONIC CONDITIONS	Average	1.81	2.10	
	n	77	30	not significant
NUMBER OF PRESCRIPTION DRUGS	Average	3.88	4.70	
	n	68	23	not significant
COUNT OF NON-COMPLIANCE	average	.31	.77	
	n	77	30	.064
FILL NON-COMPLIANCE	average	-.159	-.140	
	n	68	25	not significant
ADJUSTMENT NON-COMPLIANCE	average	-.134	.580	
	n	68	25	.007

TABLE S15.4
RELATIONSHIP COUPLED VERSUS OTHERS AND NON-COMPLIANCE, FOR TOTAL SAMPLE[38]

	COUPLED	OTHER	STATISTICAL SIGNIFICANCE
non-compliance yes	16.8%	27..8%	
non-compliance no	83.2%	72.2%	
	100% (n=173)	100% (n=237)	.001

[37] Coupled denotes a person married or in a common law relationship and who is living with their spouse or partner.
[38] Ibid.

TABLE S15.5
RELATIONSHIP BETWEEN COUPLED VERSUS OTHERS AND NON-COMPLIANCE FOR PERSONS WITH INCOME LESS THAN $30,000[39]

	COUPLED	OTHER	STATISTICAL SIGNIFICANCE
non-compliance yes	12.3%	31.5%	
non-compliance no	87.7%	68.5%	
	100 % (n=81)	100% (n=165)	

TABLE S15.6
RELATIONSHIP BETWEEN COUPLED VERSUS OTHERS AND NON-COMPLIANCE FOR PERSONS WITH INCOME $30,000 AND OVER[40]

	COUPLED	OTHER	STATISTICAL SIGNIFICANCE
non-compliance yes	19.0%	20.0%	
non-compliance no	81.0%	80.0%	
	63	40	.not significant

TABLE S16
ATTITUDES ABOUT PHARMACARE AMONG PARTICIPANTS

VARIABLE	CATEGORY	% OF PARTICIPANTS	N
S16.1 FAMILIARITY WITH PHARMACARE PROGRAM			
	very familiar	35.0%	
	somewhat familiar	58.8%	
	not at all familiar	6.3%	
		100%	320

[39] Coupled denotes a person married or in a common law relationship and who is living with their spouse or partner.
[40] Ibid.

VARIABLE	CATEGORY	% OF PARTICIPANTS	N
S16.2 COST OF PHARMACARE FOR RESPONDENT, TAKING INTO CONSIDERATION USE, YEARLY PREMIUM, AND CO-PAY			
	far too high	21.7%	
	a little too high	41.5%	
	about right	36.2%	
	a little or far too low	0.6%	
			318
S16.3 SATISFACTION WITH PHARMACARE'S COVERAGE OF DRUGS			
	very satisfied	23.9%	
	somewhat satisfied	58.6%	
	not at all satisfied	17.5%	
			309

TABLE S17
PERCEIVED INFLUENCE OF SENIORS' ORGANIZATIONS ON GOVERNMENT AMONG THOSE WHO BELONG TO AN ORGANIZATION

VARIABLE	CATEGORY	% OF PARTICIPANTS	N
S17.1 HAS ANY ORGANIZATION YOU BELONG TO TRIED TO INFLUENCE THE GOVERNMENT ON PHARMACARE POLICY?			
	Yes	60.7%	
	No	39.3%	
			211
S17.2 ON A SCALE OF 1 THROUGH 5, HOW INFLUENTIAL HAS/HAVE THE ORGANIZATION(S) BEEN? (1=not at all influential, 5=very influential)			
	1	16.7%	
	2	16.7%	
	3	40.2%	
	4	18.6%	
	5	7.8%	
			102
S17.3 "PEOPLE LIKE ME HAVE VERY LITTLE INFLUENCE ON GOVERNMENT PRESCRIPTION DRUG POLICIES"			
	strongly agree	35.3%	
	agree	51.4%	
	disagree	10.5%	
	strongly disagree	2.8%	
			391

3.0 Focus Groups

Dr. Jane Gordon
Dr. Rusty Neal

3.1 Focus Group Methodology

Focus Groups Process

The projects' focus groups were guided by two facilitators experienced in group dynamics and the elicitation of questions and answers. The groups were designed to elicit participants' experiences with prescription drug use under the provincial insurance coverage system, the Nova Scotia Seniors' Pharmacare Program.

Seven seniors' groups were identified by the Project Coordinator and the researchers from the Directory of Senior Citizens' Councils, Clubs, Centres and Organizations 2003-2004 produced by the Nova Scotia Senior Citizens' Secretariat to organize focus groups in their local communities. These local seniors**'** organizations were invited to participate in organizing focus groups of eight to ten people.

The criteria for the selection of participants were that participants were to be at least sixty-five years of age (the age at which people become eligible for Pharmacare) and at least half were to be participating in the Pharmacare Program. Those who participated in Pharmacare were to be managing their Pharmacare Program and not dependent on anyone else in the management of their prescription drug use. The sponsoring organizations were encouraged and supported to select as diverse a group as possible from their membership taking into consideration gender, age, income level, previous occupation, housing arrangements, family status, health status and ethnic background.

Each sponsoring group was provided with an honorarium of $250.00 to use as their group chose. Focus group participants were making a contribution not only to the project but taking part in fund-raising for their seniors' clubs and organizations.

At the beginning of each focus group session, focus group participants were greeted by the facilitators and were asked to fill out the Participant Background Information Form (Appendix 8.2). Once the forms were completed, the facilitators began the session by explaining the purpose of the focus group. After answering any questions from the participants about the focus group session, the facilitators proceeded to ask the questions outlined in Appendix 8.3.

The focus group members were led through guided discussions on health and the health of the various individuals in the groups; how people were prescribed drugs and how they actually purchased them; information and its impact on prescription drugs usage; the ability to pay for prescription drugs and the effect of Pharmacare; managing drug use; and engaging in changes related to prescription drug use and Pharmacare coverage. The sessions were generally 2-3 hours long.

The focus group sessions were tape recorded and notes were also taken by the facilitators. Sometimes comments were recorded on flip chart. The researchers used the transcriptions of the tapes, their personal notes and comments recorded on flip chart in the process of analyzing the data collected from the seven groups.

The Seven Focus Groups

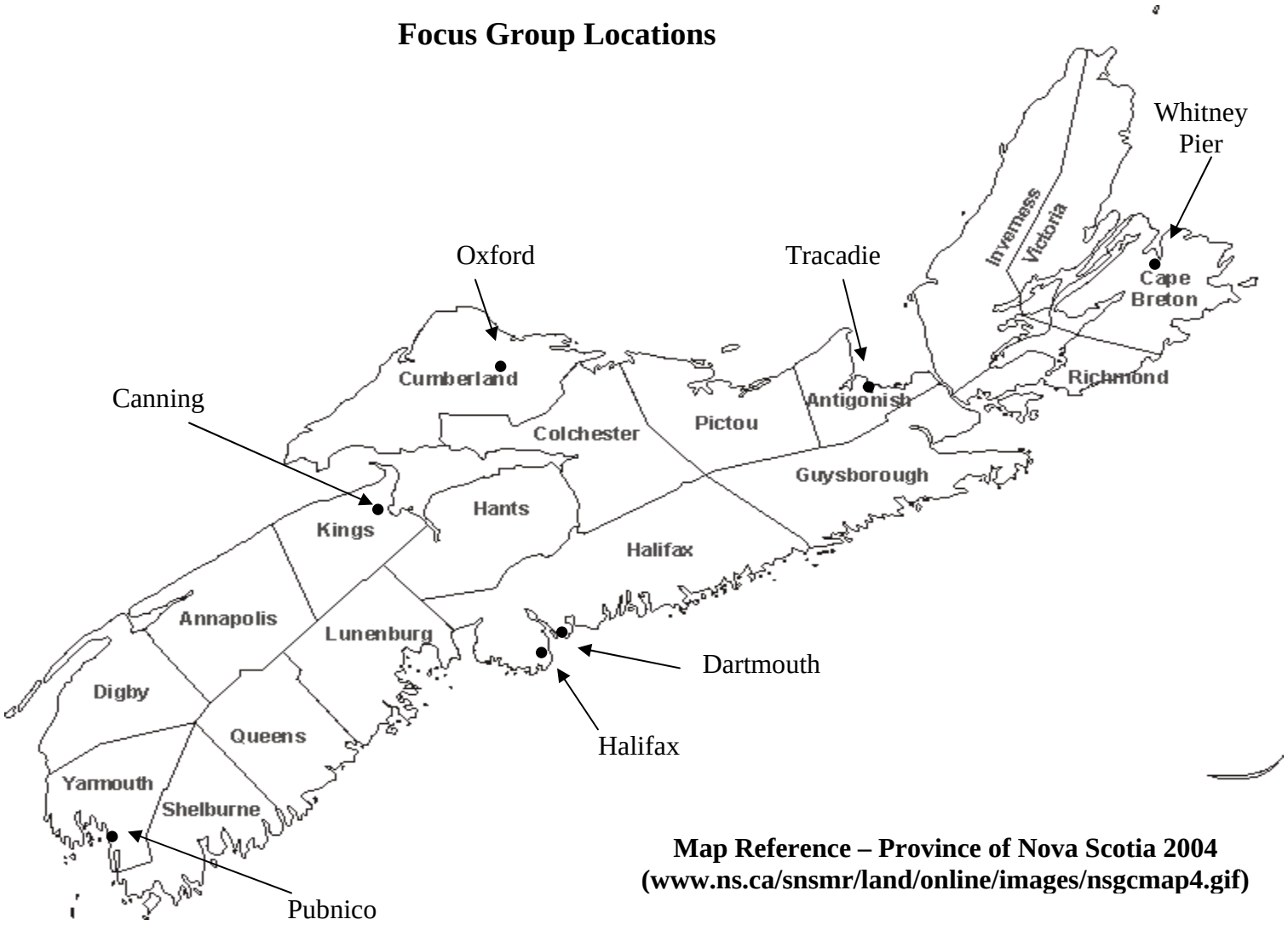
Focus groups were held in seven communities across Nova Scotia in the fall of 2003. Locations were chosen to reflect the different kinds of communities in Nova Scotia and to take advantage of already active seniors organizations present in each community. Each community, and thus its participants, had a slightly different character that related to its location in the province. Of the seven groups, two took place in Halifax Regional Municipality (one each in Halifax and Dartmouth). The remaining five groups took place in the communities of Pubnico, Canning, Oxford, Tracadie and Whitney Pier.

Halifax is the major urban centre of the province and the capital city. It is the home to five universities, one community college, the navy and much of the provinces' government and service industries. Pubnico is a small active Acadian fishing community while Canning is an old Loyalist district farming community in the fruit belt. Oxford is the major processing centre for the blueberry district while Tracadie is located in an area of mixed economy of fishing, farming and forestry. Whitney Pier is just outside Sydney (the other urban centre of Nova Scotia) and the home of the former steel mills and related industries.

Two of the focus groups were deliberately located in areas where there were significant populations of First Nations and Acadian people. Three of the focus groups were also located near to significant populations of Afro-Canadians. Two of the groups took place in the Halifax Regional Municipality where there are the most significant immigrant populations in Nova Scotia, both historically and in more recent years.

Focus group participants met at local seniors' centres. The centres were located in stand alone facilities, next to churches, fire departments, and union halls. Two of the centres were physically located in seniors' residential buildings.

Focus Group Locations



Map Reference – Province of Nova Scotia 2004 (www.ns.ca/snsmr/land/online/images/nsgcmap4.gif)

3.2 Profile of the Participants

More than sixty-five people attended the focus groups. However, only sixty-five people completed all the required consent and socio-demographic information on the Participant Background Information Form. It is from those people we draw our information.

Since each focus group was sponsored by a local seniors' organization based in their respective community, often people knew each other in the group. In some cases, only a few people knew each other because the sponsoring group had cast a very broad net in finding focus group participants.

Prescription Drug Insurance Coverage

There was a diversity of prescription drug insurance coverage among the participants. The different coverage experiences allowed people in the focus groups to compare the experience of people using Pharmacare with the experience of those who did not use Pharmacare. Among those participants with low incomes and in receipt of the Guaranteed Income Supplement, their yearly Pharmacare enrollment costs were waived. The co-pay, however, was not. Other people in the group paid the full yearly enrollment fee as well as the co-pay.

Although the criteria were given asking that people be sixty-five or over to participate in the groups, several people were younger. Those younger than sixty-five had medical conditions requiring prescription drugs. They also had a strong interest in Pharmacare and what it might mean for them when they turned sixty-five. People who had private insurance plans, often from workplaces, were also interested to understand the Pharmacare Program. The people who had private medical insurance tried to make informed decisions as to whether it was to their benefit to participate in their own coverage plans or to participate in Pharmacare. Some people were not given the choice as their workplace medical insurance had to be terminated when they reached sixty-five. Of the sixty-five participants, forty-seven participated in the Nova Scotia Seniors' Pharmacare program. Eighteen did not. Two people over the age of sixty-five had no medical insurance at all and had chosen not to apply for Pharmacare.

Table F1 Pharmacare Coverage

Participation	n	Percent of Focus Group	Percent of 65+ General Population
Yes	47	72%	74%
No	18	28%	26%
N	65	100%	100%

Gender

Gender is an important determinant of health and related medical conditions. In terms of longevity, women live longer than men and accordingly among the senior population there is a larger number of women than men.[41] The predominance of women in the older age groups in Canada is reflected in the larger number of women in the focus groups. Forty-nine women and sixteen men participated in the groups.

Table F2 Gender

Sex	n	Percent of Focus Group	Percent of 65+ General Population
Female	49	75%	58.3%
Male	16	25%	41.7%
N	65	100%	100%

[41] Nova Scotia Senior Citizen's Secretariat, 2003, A Statistical Profile of Nova Scotian Seniors, p. 16.

Age

The forty-nine women and sixteen men participating in the groups ranged in age from fifty-six to ninety-one. The majority of the participants were between the ages of sixty-five and eighty-five. The youngest person had a severe medical disability and relied on a disability pension for income. The eldest (who was in much better health than the youngest) drew his or her income from the public retirement pensions.

Marital Status

Women typically marry men who are older than they are at the time of marriage. They also marry at a younger age. Throughout their lives, the majority of group participants or sixty-one of the participants were married. Currently, twenty-six are still married while twenty-eight are widowed and one is divorced. One person is living common-law and two are single people who have never married.

Table F3 Marital Status

Marital Status	n	Percent of Sample
Never Married	3	5%
Common Law	1	1%
Married	26	40%
Widowed	28	43%
Divorced	7	11%
N	65	100%

Household composition is related to marital status. Who one lives with and whether one lives with others often affects how socially connected a person may be. Twenty-eight of the participants live alone and twenty-seven live with a partner. Eight live with other family members or care-givers and two live in a seniors' residence.

Table F4 Participants' Households

Household	n	Percent of Sample
Live Alone	28	43%
Live With Partner	27	42%
Live With Others	8	12%
Seniors' Residence	2	3%
N	65	100%

Ethnicity

The question of ethnicity was one that people discussed with each other when filling out the socio-demographic forms. Most people who identified an ethnicity beyond Canadian wanted to make sure that other people also knew they were as Canadian as anyone else. All of the participants said they are Canadian by citizenship.

Of the sixty-five participants, nineteen people identify themselves as having an additional ethnicity beyond Canadian. There are eleven Acadians, two Mi'kmaq people, one Afro-Canadian and two people who identified having an ethnicity but did not state it.

There are also one each of people who identify themselves as Dutch, Czech, and Welsh.

Education

People were asked to indicate their level of education and Table F reports highest level of education. Participants' levels of formal education vary with younger people having higher levels of education than those who are older. Six people have some elementary school education and thirty-seven have some high school education. Ten people have college or technical training while five have some university. Six people have some post graduate education. One person did not state educational background.

Table F5 Participants' Education

Education	n	Percent of Sample
Elementary	6	9%
High School	37	57%
College/Technical	10	15%
University	5	8%
Post-Graduate	6	9%
Not Stated	1	1%
N	65	100%

Income

Income is one of the most important determinants of health. Improvements in health in general are not shared by everyone. Seniors with low education levels and low income are more likely to have chronic conditions than those in the higher education and income categories.[42]

The income categories of participants are based on family income according to people's tax returns. Income is also something people are sensitive about. Five people did not answer the income question.

Of those who answered the income questions eighteen people have family incomes of less than $15,000.00; twenty have incomes between $15,000.00 and $29,900.00 and seventeen have incomes between $30,000.00 and $49,900.00. Only five people have family incomes of greater than $50,000.00.

When income is disaggregated by gender, consistent with the situation in Canada, women in the focus groups have lower incomes than men. Only 6% or one of the sixteen men in the focus groups has an income under $15,000.00. By contrast, 34% or seventeen of the forty-nine women have incomes less than $15,000.00. While the same percentage of men and women (30%) have similar incomes in the $15,000.00 to $29,000.00 income range, this equality decreases again as the income ranges increase.

[42] National Council on Aging, 2001, Report Card on Seniors in Canada, p. 18-25.

Table F6 Participants' Income		
Income	**n**	**Percent of Sample**
Less than $15,000	18	28%
$15,000 - $29,000	20	31%
$30,000 - $49,000	17	26%
$More than $50,000	5	7.5%
Not Stated	5	7.5%
N	65	100%

Medical Conditions

People in the focus groups have a diversity of medical or health conditions. Participants were asked to indicate on the Participant Background Information Form their medical and health concerns.[43] The most frequent conditions people currently have are heart conditions, glaucoma, arthritis, diabetes, and hypertension. Many of the participants have multiple conditions while four have no conditions and enjoy excellent health. Almost half of the participants, or thirty-one people, have arthritis. Sixteen people have hypertension and eleven people have heart conditions. Eleven have diabetes and ten have glaucoma. Seven have osteoporosis.

The remainder of the medical or health conditions included two kinds of thyroid conditions and two forms of cancer, epilepsy, chronic obstructive pulmonary disease (COPD), deep vein thrombosis, ankylosing spondalosis, muscular dystrophy, stroke after effects, fibromyalgia and acid reflux. At least five people mentioned in the focus groups that they had survived cancer but did not list this as a current medical concern.

Table F7 Participants' Medical Conditions		
Medical Condition	**n**	**Percent of Sample**
Arthritis	31	48%
Hypertension	16	25%
Heart Conditions	11	17%
Diabetes	11	17%
Glaucoma	10	15%
Osteoporosis	7	11%
Thyroid Problems	2	3%
Cancer	2	3%
Other	6	9%

Prescription Drug Use

The majority, or forty people, in the focus groups use between two and five prescription drugs. Eleven people use more than five. Seven people do not use any prescription drugs while six use only one. One person did not answer this question.

[43] The list was derived from R&D, Canada's Research-Based Pharmaceutical Companies pamphlet 'Knowledge is the best medicine: Things to Know About the Medicines You Take'. Participants also wrote in other medical conditions not included on the list.

Table F8 Participants' Prescription Drug Use		
Prescription Drug Use	**n**	**Percent of Valid Responses**
None	7	11%
One Prescription Drug	6	9%
Two to Five Prescription Drugs	40	62%
More than Five Prescription Drugs	11	17%
Not Stated	1	1%
Total	65	100%

Over the Counter Drugs

Twenty-one people in the focus groups do not use over the counter products such as aspirin. Nineteen use one product and nineteen use two to five products. The remaining one person uses more than five over the counter drugs.

Table F9 Participants' Over the Counter Drug Use		
Over the Counter Drugs	**n**	**Percent of Valid Responses**
None	21	32%
One Drug	19	29%
Two to Five Drugs	19	29%
More than Five Drugs	1	2%
Not Stated	5	8%
Total	65	100%

Regular Health Services

In addition to prescription drugs, people use health aids like dentures, hearing aids, magnifying glasses, wheelchairs and walkers. The majority of people do not use health services like massage, chiropractics and physio-therapy but twelve people do regular fitness programs like Tai Chi and exercise classes. Two are currently using massage and physio-therapy. And one person sees a chiropractor while another sees a podiatrist. Almost everyone, however, when asked, says they keep fit and healthy by eating well, walking regularly and staying active in the community.

Table F10 Participants' Regular Health Services		
Health Services	**n**	**Percent of Sample**
Fitness/Exercise	12	18%
Massage	2	3%
Physiotherapy	2	3%
Chiropractics	1	1%
Podiatry	1	1%

3.3 Focus Group Themes

Group members were encouraged to express their beliefs, attitudes, needs and descriptions of their own experiences. Throughout each of the focus group sessions, individuals in the group were engaged in conversation with both the facilitators and each other. They not only provided commentary, concrete examples, and suggestions for change to the Nova Scotia Seniors' Pharmacare Program but also asked challenging questions. An added benefit to these groups was that participants consistently stated that they learned more about the issues of seniors prescription drug use under Pharmacare than they currently knew on their own. Focus group participants brought a variety of opinions to the issues they identified.

The themes that follow were recurrent across all the focus groups. They are grouped in the following pages to represent the participants' views and opinions about senior's use of prescription drugs under Pharmacare. The participants identified what it meant to stay healthy. They also spoke of how prescription drugs may or may not facilitate their health. They identified the different sources of information they consulted when making decisions about the drugs they had been prescribed. They spoke about compliance to prescription usage, overmedication, misdiagnosis, the interaction of drugs, the cost of drugs, the list or Formulary and patent versus generic drugs, all in relation to Pharmacare.

When talking about Pharmacare, the participants spoke about coverage, annual fees, cost of coverage and co-payments, dispensing fees, bureaucratic inefficiencies in the medical, pharmaceutical and Pharmacare systems, the interaction with private insurance plans and some of the mandatory changes that occur at age sixty-five. They commented on retroactive coverage, as well as the need for a national rather than provincial Pharmacare system. Participants also identified what they called waste in the system and offered remedies for this along with their own thoughts and participation in lobbying for change.

For the purposes of this analysis, pseudonyms are used when attributing commentary to specific individuals. None of the substantive facts have been changed. The use of pseudonyms was a part of the verbal agreement between participants and the focus group facilitators.

3.3.1 Staying Healthy

Participants in the focus groups stated that to pay attention to their body through their diet means "eating small amounts, low salt, low fat, moderation in alcohol and no tobacco, and taking one's weight down when it goes up". While they know this, they might not always follow these ideals but do try. Seniors in some communities are even more forthright about the constituents of good health and remind each other that to stay healthy means "laughter and good sex". Ultimately, for the vast majority of participants in the focus groups, being healthy means "being able to maintain the energy to stay in control of one's body and daily life".

Participants stay healthy through good habits in eating and exercise. Depending on the community they live in they may "walk, dance, swim, garden and take part in exercise classes and walking stairs". In other communities, they might "bowl, wash and scrub floors, quilt, make soups, wood work, or simply go here and there". Others talk about staying healthy and active through participation in volunteer activities, singing, church activities, women's groups, men's groups, choirs, community organizations, doing service for others, doing enjoyable interactions, as well as hunting, fishing, and going out to the woods". Some people have their own bikes and treadmills and memberships in sports or health activities such as those provided by the YMCA and community recreation associations. And even others talk about "travel, grandchildren, hospice work, and meeting new people". Staying mentally active is a recurrent theme. People offered crosswords, computers, music, and reading as excellent activities to maintain their mental agility. They stay healthy by, as one focus group participant said, "doing everything I used to do, except at a slower pace."

For many participants taking part in the larger community and in religious activities help them to maintain their health and heal the body when it needs healing. Faith is viewed as something that is not necessarily tied to a church or religious beliefs though it can be. The spiritual aspects of what helps one get through difficulties is what these participants say are ultimately important.

Staying Connected as Part of Health

"Staying connected" is an important aspect of health and "means being part of a community that is larger than a family unit." According to focus group participants to be active and busy "requires people to move beyond their own four walls and to connect with others in meaningful ways". When one is engaged in these kinds of activities, say the participants in this group, "one can still describe oneself as 'healthy' even when suffering from debilitating diseases" such as muscular dystrophy, cancer, strokes, and brain aneurisms. The cost however is a personal one where as one person says, "You have to push, push, push but also learn how not to push yourself too hard".

Dignity and control over one's life and a determination to stay well and alive is what most of the focus group participants would agree gives even the most medically fragile person an opportunity to see themselves as a healthy person in the broader sense. Not taking medication is seen by many as an indicator of good health. Taking prescription drugs, by contrast, is viewed as an attempt to ameliorate disease and illness.

George is an example of someone who supports the idea that a positive attitude can generate the healing process. He says, "Power of prayer, faith, meditation, and those kinds of spiritual parts of oneself make for a healthy person and for healing".

And even when one is not healthy, Isabelle explains, "I keep going all the same. I had a vein that broke in my head six years ago and I am still here…I fell in the basement the other day but I am all right. I didn't break anything."

Samuel puts it succinctly "I suffered a stroke last fall. It slowed me down quite a bit. It affected my speech. It affected both my legs and I can't walk too far. I walk with a cane but I walk where I want to and I go to the basement to do wood work… I am so lucky to be where I am. I have made surprising progress and I have concerns about slowing down. Some things are very uncomfortable but I do the things I want to do."

Dorothy illustrates how emotional attributes like a sense of humour and a positive approach to life health can be very important.

> "I am having difficulty dealing with seeing myself as fragile. Of all the things I am in my life, fragile is not one of them. I had cancer and in those days they administered massive doses of radiation. So, I have lot of internal problems I lost several of my inside parts…on top of that I just got diagnosed with extreme osteoporosis because of the radiation damage. My doctor tells me she is getting me fitted for knee pads and hip pads. So I am going to be one gorgeous looking hockey player…yet I continue to do things. I garden, I am like the 'road runner' and I feel really great. And then I get hit with all this bad medical information. It helps if you can see progress when this happens. So I do exercise classes and I swim, at least I did until I found out this news. I used to walk a lot but I can't do that any more but I can garden and walk and dance. A lot of it is the approach in my head. I go out and I mix with people. I don't stay at home alone."

Perceptions of Inappropriately Prescribed Drugs

As one person put it, "they tell us that taking prescription drugs is about keeping ourselves healthy. I don't really think that but rather it is sometimes about keeping ourselves alive. It doesn't necessarily make me feel better; it sometimes makes me feel sick, very sick. But it keeps some things in my body in check."

In some cases, people indicated they were aware of the power and danger of prescription drugs and would describe how prescription drugs sometimes made them even sicker than their medical conditions. For example, a woman who was inadvertently prescribed sulfa drugs (to which she was allergic) by her doctor turned into "an itching blistered lobster." Another described it this way.

> "Sometimes it is the wrong medication that doctors prescribe for the person. Then the person thinks they are losing their mind. They don't know where they are. It is causing more problems for the Department of Health and it is costing more money and it is really very hard on seniors themselves… We know that 20-30% of hospital admissions of seniors are from drug use that is not well prescribed."[44]

Some focus group participants felt that seniors are being prescribed too many

[44] The Ontario Pharmacist Association reports that 25% of hospital admissions of patients over 50 years of age result from medication problems (www.opatoday.com/public/seniors.asp).

prescription drugs and that is part of the cost problem. They place the blame for this with doctors who are making the prescriptions and the drug companies who are making profits. One participant stated,

> "I heard about people who say seniors were taking too many drugs, too much medication. I said, 'who is to blame. I am not prescribing drugs. There is somebody else to blame'. So yes there is something else. The plan, they have an awful lot to pay, but I don't think it is all necessary. And the seniors are not always responsible. Yes they take pills and say it is not working and take the rest and throw them away. They go to another doctor for another prescription. And they go and go and go. They are doctor hopping and it makes it all very costly."

Another focus groups participant put it this way,

> "Most people don't abuse the system but I think maybe a few do. I know I went to a doctor and he had me in his office every second week with pills and pills and pills. I was always sick, I thought I was dying. I moved home and my doctor said to me here why are you taking so many drugs? I said I don't know. But the doctor where I was had his own pills in his office and he was selling directly. He was pushing his own drugs."

The most condemning of statements was directed at seniors themselves. This story describes the most isolated seniors as complicit in the problem of over-prescribing and thus again indicates a waste issue. As one of the people in their eighties with several physically debilitating conditions said,

> "I don't go to the doctor very often. I don't have too many problems. I only go when I have a problem. There is a problem though with our medical system. There are an awful lot of old people out there living by themselves with nobody to talk to. So they go to the doctor to have someone to talk to. And unless the doctor gives them a prescription, they figure the doctor is no good. So there is the waste. You are taking up the doctor's time and you are using prescriptions you don't need. I actually don't know any of these people but that is the story I have heard."

He qualified his statement with "I do know the doctors are pretty good at picking out hypochondriacs. These people need someone other than a doctor and do not need a prescription of anything but sugar and cornstarch."

As a woman who had stomach problems, glaucoma and cataracts and felt nauseous all the time said, "I am literally starving because I can't eat. My daughter says I am on too many prescription drugs. And I believe I am. I have never taken much medication in my life and now I have too much. I am hoping when I see the doctor I can get off these drugs."

Relationships with Medical Professionals

Participants had a variety of attitudes toward medical personnel as professionals. In most cases their commentary was about doctors as key actors of all the health professionals they deal with. They saw dentists, nurses, pharmacists and specialists as part of the medical system but focused most of their commentary on doctors as the people who prescribed drugs.

Some saw doctors as authorities who had the education and could make the correct call on their medical well-being; others saw specialists as the people they needed to rely on. Most identified pharmacists as the professionals who gave the most accurate information about drugs. They were most satisfied when their pharmacists and doctors communicated with each other. Most viewed the family doctor as the centre of the health system and their prescription drug use.

In dealing with older male doctors, some of the women in the focus groups noted that "when speaking to doctors you really need to be assertive especially when you are a woman and at a certain age. There are still doctors who will tell you there is nothing wrong with you when there are very real problems."

One of the rural participants, after a devastating experience with the side effects of medication, put his thoughts about doctors and his own health this way.

> "I think the physical exercises as well as mental exercises are important. I am a full partner in my own health care team, taking responsibility for my health. I have been through two years of serious damage as a result of medication and its side effects. Now on my own business card in life I have a line saying 'manager of my life'. I am the managing director of my own life. I think it is very important we take full responsibility for what goes on in our own health management… I want to have full communication with my doctor. I shopped around for a doctor and when I found one I could be satisfied with I said 'You and I have to decide whether we can live with each other or not' . I made the ground rules. This is what I want from you and you need to tell me what you want from me so that we have a working partnership."

While the preceding view of managing one's own health is an ideal many would aspire to it is also not possible for many of the participants because of the lack of access to enough doctors in their communities so that they could actually make a choice. At the other end of the spectrum from the ideal were people who deferred to the medical system and only went to doctors as a last resort. These few individuals expected doctors "to give medication when something is wrong".

3.3.2 Prescription Drug Use

Prescriptions are but one way people seek to address their personal health and medical concerns. Sometimes people consult with pharmacists to see if they even need to go to a doctor. The access to prescription drugs for most people, though, is through family

doctors, clinic doctors and hospital emergency rooms. Waits for family doctor visits vary from hours to days to weeks and people sometimes turn to hospital outpatients and emergency rooms in the search for prescriptions.

Getting Prescriptions

In case of severe concerns or waits that are simply too long, hospital emergency rooms become the quickest route to obtaining prescriptions for some. "There is a lack of doctors here. You go to a doctor's office. She has 8,000 files. How do you expect to give a call to a doctor when you are sick? You want the doctor today and 7,999 other people are waiting." Yet, in spite of this, the respondent indicated that, "we are not too badly served down here. In fact, we are well served compared to some other areas of the province."

When people go to the doctor, they don't necessarily expect to get prescription drugs. "I expect to be told my blood pressure is ok and I don't expect more than that unless it is time for my tests. I get blood tests done once a year and always phone to get the results."

There is a general feeling that some doctors over-prescribe drugs to seniors when they could be dispensing advice instead. As Allain says,

> "I say that most doctors have a tendency to prescribe drugs, at least from my experience, without giving you a chance to do something about your condition first. For example, if you have high blood pressure or high cholesterol you can watch your diet, you can start exercising… I don't need the prescription, as far as I am concerned. Give me a chance to do something about my condition before you prescribe drugs."

There was reluctance among focus group participants to take medication and certainly to do so without a physical examination. For example, Louise says,

> "I was prescribed a drug and refused to take it because I had not been examined. The prescription was for high blood pressure. I was simply asked from the other side of the desk if I had family members with high blood pressure. When I said yes I was prescribed a drug I refused to take. I figured out I had allergies and this would only make things worse. I talked with a pharmacist and she asked why I would be taking high blood pressure now given that I didn't have high blood pressure. My head was spinning so much I had to hold onto things not to fall down. So I refused to take the medication and I was so scared I went back to another doctor's office. I realized there was something wrong with my ears and my head was spinning after a good night sleep which is not a sign of high blood pressure. The doctor she examined me and found out I had an ear infection and that was why my head was spinning."

In another case, the person in this group who was taking the largest number of prescription drugs was trying to deal with chronic pain and migraines in addition to

muscular dystrophy (MD). As she said, "there is nothing for M.D. You lose muscle and your nerve endings hit each other it gives your really sharp stinging pain. Sometimes the pills work and sometimes they don't. I take them every morning and I still get migraines. I suppose it might get worse if I didn't take them."

Doctors who listened and dispensed thoughtful advice were very well thought of. There was praise and accolades for doctors who did this and especially for the "younger, new, female doctors". There was also a thankful air of appreciation for "any doctor who took the time to listen".

An argument was also put forward for more nurse practitioners who would be able to prescribe drugs. Unfortunately, "there are five or seven nurse practitioners graduating and there aren't doctors who will take them. There is a need for nurse practitioners within the province but right now they have to be in collaboration with a physician. That situation and the legislation creating it need to change."

Sources of Information about Prescriptions and Health Products

People draw information about prescription drugs not only from doctors and pharmacists but also from what many referred to as the 'big drug book' or the Canadian Medical Association's Guide to Prescription and Over-the-Counter Drugs. They also searched the internet or had friends and family members search the internet for them and used the pamphlets they found at the doctor's offices and pharmacies.

Some people were skeptical of the benefit of talking to each other about drugs. They felt this kind of conversation was not a real option in some of the smaller communities. Others found the experience of "chatting with others" valuable, although most understood that "everyone's body might not react the same way to same prescription drugs. What necessarily worked for one, might not work for someone else". Participants, however, agreed that the most reliable information on prescription drugs was that given out by the pharmacist or what people still call the 'druggist' or 'chemist'.

And as one person put it, "when there is a contradiction, I listen to and believe the pharmacist before the doctor every time…the doctors have too many patients and they shuffle your charts before they talk to you but they do not read anything on them. The pharmacists have a great knowledge of pharmaceuticals. They will put down whatever they are doing and will deal with you one on one." Doctors, however, are viewed as knowing more about the individual while pharmacists are seen as having more comprehensive information about drugs and their proper usage.

Most of the focus group participants say they have more confidence in the information given out by pharmacists over that given out by doctors because the 'druggist' takes far more time with them and has the greater pharmaceutical knowledge base. Some went as far as to describe how pharmacists will even intervene if they see a contraindication the doctor has missed. One person noted that "The pharmacist is bound by ethics. They don't have to fill a prescription if they are not comfortable with it. They don't have

to fill it, they have to call the doctor and they have to make a report. They don't have to fill it if they think it would be harmful for your health". As Esther explains, "I had a neighbour who was shopping for cough medicine and the pharmacist asked who it was for. She said, 'You are not getting that for your mother are you?'. And she said 'yes'. Well, she said, 'She can't take it because she will have a stroke because of what she is currently taking'."

Participants also credited pharmacists with suggesting more "effective alternatives such as cranberry juice" when negative prescription interactions were likely. They also expressed relief that pharmacists had warned them, when their doctors had not, of the contraindications for eating grapefruit with specific drugs. In one case, this caution not only explained why one woman had become so excruciatingly ill but it also may have saved her life.

Participants, through sharing stories in the focus groups about the misuse of prescription drugs through inaccurate diagnosis, warned each other of the dangers of wrongly prescribed drugs. One such story went like this.

> "We have a lady in our community who was taking drugs for epilepsy. She had been on the drugs for forty years. Finally, in the end she was hospitalized and they discovered she didn't have epilepsy at all. She is now off drugs. Now she is always out and about. She lost forty years of her life because of a misdiagnosis and the drugs she took."

People were generally skeptical about mass media advertisements for prescription drugs, especially those on television. They, however, did read and give credence to things like 'News in Medicine' in the Readers Digest, health columns in local newspapers and mass circulation magazines like Women's World, MacLean's, Chatelaine, Prevention, and the 50+ magazine by CARP (the Canadian Association for Retired Persons).

In most cases, people simply took the information they found about prescription drugs back to their doctors or pharmacists for confirmation and discussion. One person, who was in chronic pain, was convinced enough by advertisements to ask for prescription drugs solely because of the media promises of its manufacturer. She clipped a magazine advertisement for a drug not yet available in Canada and took it into her doctor. The doctor arranged for an order of this drug to come from the U.S. where it was a legal prescription drug. As she said, "It was very expensive, $20.00 a pill and it seemed like a real lifesaver when I started to take it. But it turned out to be bad for my liver and I had to stop taking them." The promise of a cure all not only had been ill founded but was costly both financially and in terms of long term health consequences.

In responding to a question about gaining information from medical professionals one person aptly put what many others said in other ways. "I want to have communication with the doctor or health professional. I want to know where I stand and what the issues are."

In one of the communities where the focus groups took place there was still a strong reliance on Mi'kmaq medicinal traditions and herbal medicines of the previous settler generations. Several people described their adherence to these ways, reminiscing with each other.

> "The Indian doctors used to come around to our houses years ago actually selling baskets and rolls of tree bark and things you could make tea out of. Poultices, medications for salves, tansy for the liniment, willow bark for boiling, burdock as blood thinner were their wares. Some of these items are starting to be available in the drug store now. Some of them are actually coming on to the market now."

A few of the most elderly focus group participants remembered that their families "picked blue lilacs, blossoms, leaves and roots, strawberries and buttercups. We'd make teas and salves and bread poultices and use the power of the plants and even things like brandy." Even though these few people remembered the ways of their families, they no longer used these methods as much as they once did with the availability of health related products.

Several people made deliberate decisions based on personal convictions not to apply for or buy any prescription drug insurance coverage including Pharmacare. These few people simply do not take drugs when prescribed. As one says "the insurance wouldn't cover the expensive drugs I would have to use so what is the point of having insurance." Another says, "I don't need drugs and don't and won't use them. I will take my chances".

Compliance and Proper Drug Usage

Compliance is often cited as one of the most important issues in the area of senior's use of prescription drugs. One of the criteria for selecting people in the focus groups was that participants were all self-managers of their own drug plans, and that they felt confident that they were capable of following prescription instructions.

Participants noted bubble packs, colour coding, organization to fit with the time of day and meals, and written notes to oneself, and pharmacist organized daily packages have become some of the ways participants manage their prescription drugs in order to maintain compliance with instructions on how to take medication.

A few focus group participants sometimes delayed and often ceased taking drugs without their doctor's immediate knowledge because of side effects and interactions with other drugs. However, these people usually informed their doctor and their pharmacist of their decisions.

Most focus group participants stopped taking drugs if the side effects they experienced seemed too drastic or intolerable or if they upset their bodily functions or feelings of well-being. Numerous participants warned of the dangers of drug interaction and the need to be wary of this.

Sometimes participants found that over the counter drugs were recommended by their doctors (which were not paid for by Pharmacare) and did as much good as the more costly prescription drugs (which were paid by Pharmacare only if they were on the Formulary list). A very few people indicate that they had "cut back on prescription pills. I took one pill every other day as a way to manage costs."

3.3.3 Pharmacare Coverage

Pharmacare was introduced in the province of Nova Scotia in 1974/75. It was a program for residents of Nova Scotia aged sixty-five and over. The government assumed 100% of the costs. In 1989/90, the government introduced what is called a co-pay component to the program. This meant seniors had to pay $3.00 per prescription to a maximum of $150.00 per year beyond which one's drug costs were then covered.

In 1995, the government introduced a means-tested annual fee of $215.00 per year. In addition, a 20% co-pay fee was introduced up to a maximum co-pay of $200.00 per year. In 2002, the annual fee was raised to $336.00 per year and seniors were required to pay 33% of the cost of the prescription up to $350.00 per year. This created real financial hardship and cash flow problems for many seniors, putting their ability to get and use the prescription drugs they required beyond the means of many (Ryan, 2003). In 2003, the percentage payment was changed to a maximum of $30.00 per prescription. In 2003, people could pay up to $686.00 per year for prescription coverage before the government began to fully cover prescription costs.

The annual premium fee is waived if a person is in receipt of the Guaranteed Income Supplement. What this means is that a person has to be classified by Revenue Canada on the basis of their tax returns as a low-income earner eligible for the GIS.

There are occasions when low income earners can get an exemption or a reduced rate on their Pharmacare annual fee. This reduction however requires form filling and a refund process. People whose annual fee is waived still have to make the co-payments. Depending on how many prescriptions and the cost of each prescription, people can quickly face upfront costs until they reach the stage of full coverage. Full coverage only includes those drugs that are on the list for coverage and do not include associated costs like the needles required to inject some drugs.

Some of the participants in this focus group were aware of the conditions and associated lobbying that created the change from a percentage co-pay charge to a capped percentage co-pay fee charge. As one woman said,

> "we were hearing all kinds of things like seniors cutting their heart medication in half and not taking diabetic drugs… if someone had prostate cancer, the first needle was $700.00 and the person had to pay the $350.00 co-pay right away…another one was if you need your medication

> you would get your prescription drugs in the month you didn't have to pay your light bill or other such bills."

Most participants were very thankful for Pharmcare and the measure of security it gave them. Others were glad they were covered by the federal program administered through the Department of Veterans Affairs and GSMIP, the military insurance coverage program which ultimately had better benefits than Pharmacare. When it came to paying for the most expensive prescriptions they need, they were dismayed to learn that Pharmacare had gone from being a program paid for by tax revenues to one which was slowly increasing or "down-loading" the costs to individual seniors[45]. The percentage difference is that the government ends up paying about 70% of the cost of drugs through tax revenues. Senior individuals have to pick up the remaining 30% of the costs.

Changes in Coverage Mandated by Private Plans

The mandatory switch from plans like Blue Cross to Pharmacare was a particular concern for many focus group participants. Many participants became aware of prescription drug insurance beyond Pharmacare when they were in a focus group that had participants receiving private insurance. In some cases, they chose if they could, not to be involved with Pharmacare but to maintain their own private insurance. Others, such as Betty, found that at sixty-five they became ineligible for workplace insurance coverage on the pharmaceutical side and are forced to 'choose' Pharmacare.

The change to Pharmacare coverage from some of the private insurance plans was also a specific concern for couples where one person is over sixty-five and the other is under sixty-five. As Betty explains, "I was covered by Blue Cross (a private insurer) and so was my husband. When he turned sixty-five he went to get medication and he came home and told me how much it cost. It was very expensive. I said 'it can't be that because we co-pay $5.00.' It was then I found out that my insurance wouldn't pay for him after he was sixty-five. We find now that we are both over sixty-five and that the two of us are on Pharmacare we pay a whole lot more for our medication than we used to. It is sort of sickening to think that the older you get the more you have to pay. We had a private insurance plan before and we don't have a choice. We can't stay on that plan. I had to go on Pharmacare".

Finally, one person was able to describe an 'averted catastrophe' when the private plans and the government went head to head over who was to pay what.

> "I had a private plan with my old work place where I get 100% coverage for my prescription drugs because the government pays 80% of the cost and the private plan pays 20%. I guess it was about 1990 [note: this was introduced in 2000], when the Pharmacare board was talking about having the private insurer pay first and the government plan pay the rest. My work

[45] The facilitators provided a short overview of the changes in the Pharmacare Program.

> place plan wouldn't do that. I know lots of other plans like that. That nearly threw a wrench into the whole scheme and my ability to get the prescription drugs I needed."

Cut-Off for Annual Fee Coverage

Some people in the focus groups stated that the cut-off point for the waiving of the annual fee was too low and resulted in seniors who needed an exemption from the premium fee being excluded from this benefit[46]. They referred to the Guaranteed Income Supplement as a measure to define low-income as the wrong measure. People who receive the same amount or a little bit more money through benefits from Old Age Security and Canada Pension Plan, as well as small amounts of workplace pensions, might be worse off than those who receive the GIS. These seniors also become ineligible for many social programs and, in addition to their ineligibility, have to pay for the Pharmacare annual fee even though they can not afford to do so.

Co-Payment

People in most of the focus groups expressed their concern about how people have to pay for Pharmacare. The coverage and co-payment system was viewed as detrimental to particular groups of seniors including low-income seniors and people on small pensions. Even among participants who did not have financial difficulties, they were able to identify with and talk about people whose lives were different from their own and to express solidarity with their difficulties.

One person put the issue of the cost of Pharmacare coverage in blunt and frustrated terms.

> "Some people are on small pensions. In twenty-eight years, the cost of taking part in Pharmacare has gone from nothing to about $636.00 a year. Now this government knows damn well what drugs cost and they do not give a damn. It is sad. You take the men working the woods they have nothing to fall back on at all. If they have children and are on medication I do not know how they do it. Well, I do. They do without."

Numerous people were critical of the co-pay method of paying for drugs. Eleanor puts the criticism out clearly in terms of co-payment and coverage issues,

> "We paid the full amount for years to Pharmacare and we were not taking a single pill. Now that they have our money and we need to pay for prescription medication they don't cover the costs…If your income is even slightly over the GIS cut-off by even $25.00 then one can pay a lower rate of fee and receive a refund. This, however, this takes time. But even in these cases, people still have to pay the co-pay fee."

In one of the urban groups a participant put it in very direct terms.

[46] In 2004, soon after the completion of the focus groups, the income level for total exemption of the premium increased by $1000 enabling more seniors to qualify for a full premium exemption.

> "I think the payment system simply has to be redone. It is badly in need of repair. I think you have to start from the bottom and restructure the whole system. Government really has to have more consideration for people that are really hard up and can't even afford the co-payment. And any prescription drug whether it is paid for by Pharmacare or not should count as part of the co-pay."

Other Pharmacare Coverage Concerns

Some of the focus group participants noted a lack of information about Pharmacare. Some thought when they began their coverage that Pharmacare fees were a 'once only' kind of fee. But in fact, annual fees have to be paid every year unless one's fees are waived because of being in receipt of the Guaranteed Income Supplement.

Some people were also fearful of not being able to get Pharmacare coverage if they did not immediately apply for it at age sixty-five. As one person said, "If you don't join Pharmacare at sixty-five, you have only three months to join it. If you don't and then down the line you need to join it will cost more for the rest of your life. For instance, the cost is now $505.00 a year if you are a late-joiner.'

Another participant described a situation when she was uncertain of Pharmacare's willingness to cover her. She had a fear she was going to be penalized for carrying a private insurance plan.

> "I phoned Pharmacare and I said 'you never know when this insurance plan I have could be dropped. I would be facing not having any insurance and a greater fee to join Pharmacare than everyone else.' She said, 'oh, no we have it recorded here on the computer and you will be on Pharmacare at the regular cost.' I said, 'could I have that in writing please?' I felt her hesitation but she finally said I could have that in writing. I got it in writing because I felt I had to protect myself from future problems in case I needed Pharmacare."

Drug Costs

To date, many participants said that the cost of a prescription was not the major factor in their willingness to use a drug. The effect of an insurance plan's coverage (either a private plan or Pharmacare) on whether or not they would purchase a prescribed drug was however starting to become an issue and worry for many. And it was a major worry for others.

While the cost of prescriptions had not yet reached the stage of being prohibitive, most of the focus group participants were already spending additional money over and above what the insurance plans paid for. At the same time they knew people where the costs were becoming prohibitive and were worried for their own futures. People also expressed disbelief that prices for some of the drugs could be so outrageously expensive.

Several people stated they knew of two or three instances where different people had moved from Nova Scotia to Ontario because of the high cost of drugs in Nova Scotia.

Patent Drugs versus Generic Drugs

Pharmacare covers the cost of the cheapest generic drug that is available and not the brand name drug, unless specifically named by a doctor and put to the consideration of the Pharmacare bureaucracy. Some participants noted that,

> "there is a need for education about the difference between generic and patent drugs. People are of the opinion that some patent drugs are better than the generics. And that unless you have the brand name the drug is something lesser. I don't think that. I would recommend very seriously that more education with seniors and specifically for seniors needs to take place on this issue."

In addition to a desire for more education about prescription drugs, there was also a genuine interest among the participants in understanding why the cost of drugs doesn't go down. Participants wanted to know how drug companies represent (or misrepresent) the cost of the research they are engaged in. "Once the research is done on a product it is no longer research. It is done. When the generic companies wants to come in and manufacture the same thing at a forty percent cheaper cost they can't because of legislation to protect drug companies."

People were concerned about the effect of drug company patents on the price of drugs and as a result were very critical in their comments. As one participant said, "It is funny that a company has to make a drug cost $100.00 when a generic drug that is a copy of the original will cost $25.00". They connected their cost concerns to the larger health concerns in the Romanow Report on Health Care as well as to Bill C-91 (the bill that extended the duration of patents). They almost unanimously agreed that a national drug plan would benefit Canadians.

Participants were very suspicious of drug company research and development claims for the high price of drugs.

> "You see the drug companies claim they are doing all the research, but how many years have they been doing the research on, like the eighty dollar eye drops she takes? You would think the drug company was developing it just for her. It's a high price. But they are turning that stuff out by the gallons. It is like perfume. You know its $5.00 or $25.00 an ounce but .50 a barrel when they manufacture it."

The participants who had concerns about the cost of drugs clearly attributed their concern to the politics of patents.

> "It is my understanding that the amount of time that pharmaceutical companies have patent protection was one of the changes that was introduced when Brian Mulroney was Prime Minister. He extended the period of time to twenty-five years from five before drugs have to become

> generic. He gave the drug companies patented protection. By the time the patents expire on some of the drugs I will be dead and gone."

The concern about tiered rates for drugs (which is how they viewed the patent versus genetic drug issue) was put even more bluntly,

> "The drug companies are gouging the government. Why is it as an individual without insurance I pay $25.00 for a drug and when I have insurance the price goes up to $50.00? When you buy a loaf of bread it's the same price. But when you go in to buy drugs, it's a different price for you to pay, and for me to pay because I am on Pharmacare."

The final concern was limited to cases when brand drugs were sometimes viewed as superior to generic drugs in particular instances. The participants also suggested that doctors were able to have Pharmacare make a few limited exceptions for some individuals but that doctors had to take valuable time away from patients to do this when sometimes the changes such as liquid over pills or dosage changes were just too obvious.

Bureaucratic Difficulties with Pharmacare

Focus group participants were commonly reluctant to take action when confronted with bureaucratic difficulties. However, participants in the group urged each other to do so.

> "As I said to some people, if you are in doubt about whether of not something should be covered by Pharmacare or not, feel foolish and phone. You definitely might not be foolish, the worse they can say is no. What is the best that can happen is that something might change. It is always worth the phone call."

Bureaucratic difficulties were an area where participants thought improvements could be made fairly easily. Betty for instance describes the bureaucratic difficulties that occur when a person needs medication and the forms aren't filled out adequately. In this case, the pharmacist made real concessions to ensure Betty's husband had a necessary medicine even without payment. As Betty says,

> "One weekend we went to get medication from a pharmacy that didn't know us. We didn't know them because we were in the city at the cancer clinic. The prescription came from the clinic. The druggist looked at it and said 'I can't read the name of the doctor'. She tried to call the office but the office was closed. She could not put the prescription into her computer without the name of the doctor. She said 'I will give you the medicine for the weekend anyhow and gave it to us. It was not paid for. She didn't know the doctor who prescribed it. It seems to me when you need something like cancer medication you need it and that this pharmacist was able to work around what others might turn into a bureaucratic nightmare."

'The List' or Nova Scotia Formulary

People were very aware of the recent discussions about Alzheimer drugs and whether or not they were on the list to be covered by Pharmacare. They supported the coverage of these drugs on the Nova Scotia Formulary. They also were concerned about arthritis and cancer drugs they could not get even though they were prescribed by doctors who made the decisions about which drugs were needed.

The Formulary list was perhaps one of the most dissatisfying and contentious aspects of Pharmacare coverage. Which drugs were covered was not adequately explained by Pharmacare, said the participants. When fuller explanations were received from Pharmacare they were often in disagreement with how people believed the Formulary list should work.

Most of the focus group participants were already spending additional money over and above what their insurance plans (including Pharmacare) paid for. One person was "very anxious" about whether or not the pills that had been substituted for the B12 injections, which were taken off the Pharmacare Formulary of coverage list, were going to work for her and whether she would be able to afford the injections. As she put it when she realized what was happening,

> "Oh my God, that frightens me. The reason I am on the injection is because I can't assimilate this vitamin from my food, how can I extract it from a pill? And I said it really frightens me to figure out whether I could pay for this shot. The doctor said 'How about you try the pill? I will send you for blood work today and then we will send you for blood work every six months and will monitor your B12. If there is a problem we will deal with it then.' But I am very nervous about this, I went through this with an older friend of the family who all of a sudden began to shuffle, he could not walk, he could not speak. In essence what his problem was that he didn't have the B vitamins. So I am very apprehensive."

Betty's concern about whether drugs are 'on the list' illustrates the cost issue. In her case her husband was suffering from cancer and under the care of the provincial hospital's cancer clinic. She sighs, "Some of the medicine he was taking was not even covered by Pharmacare. It was not on the list of drugs. What happens if I can't write a cheque and don't have the cash?"

Focus group participants on private plans were often grateful to be on private plans which covered drugs that Pharmacare would not. As one person said, "Luckily my brother and sister-in- law were on a Veteran's plan when they needed Alzheimer drugs. The medication cost $300.00 a shot and without this plan they could never afford the medication."

Another person noted that medications for arthritis were problematic. She explains,

> "The doctor said double the dose – twice as strong – to make sure the medication works. Pharmacare then stopped paying for the same pill twice

> as strong. What this tells me is that Pharmacare is really saying – if you don't need it that much we will pay for it**.** But if you really need it, we won't pay for it. The real issue is what will be paid for and what will not."

Another explained how he needed a particular drug for psoriasis which was $125.00 a tube.

> "It was expensive and you have to be very careful with it. The druggist told me it wasn't covered simply because they didn't have time to get it on the approved list yet. I thought a number of calls to Pharmacare would help to get it on the list. But we tried that and it did not work."

And another spoke about how some doctors will lobby Pharmacare to pay for drugs not on the list. Bernard explains,

> "You have to try all the different kinds of drugs first for your condition. If those don't work and only the one that is not on the list will work then you can get your doctor to write a letter to Pharmacare and Pharmacare might cover it for you. But you have to try the cheapest first and you have to have a doctor who will write the letter."

Not everyone had doctors who would write these letters. A common sentiment was that "some will and some won't". Participants described cases where doctors charged $50.00 to write the letters and did so under the discretionary fees that they are allowed to charge.

Several people had their doctors and pharmacists lobby Pharmacare to cover specific drugs that were not covered by the Pharmacare coverage. In some cases, specific brand name drugs were substituted for the generic drugs that the insurance covered, in others different forms of drugs (liquids versus pills) had to be lobbied for as well.

Some also made sure that they requested the longest prescription period possible so they didn't have to pay the dispensing fee each time their prescription was reprocessed. As Monique explains, "I told my doctor that I need this drug and I don't want to have to keep paying the dispensing fee. Don't give me a thirty day prescription; give me a two month prescription. Then Pharmacare only has to pay one dispensing fee and I get my pills for two months." Others deliberately requested ninety day prescriptions even though they knew the pharmacists didn't like filling these longer term prescriptions. Indeed, some participants suggested that these practices could be examined as potential cost-saving measures for Pharmacare.

Dispensing Fees

> "It really irritates me. When you need a prescription drug filled you don't always have time to go shopping around. I tried to shop around for a while. I called six different drug stores to find out their dispensing fees. It turns out three of them are the same outfit, just using different names. And there is a big difference in fees from $7.00 to $9.00 to $12.00."

In terms of dispensing fees, participants noted there was a real need for pricing rules as the variability of dispensing fees was just too great. "The difference in prices between buying in a hospital, a drug store, and a retail outlet are too great. The variation is too great. The costs are over-inflated."

Some argued that the government should maintain some kind of control over dispensing fees and pharmacists should be required to post their fees. One participant noted,

> "Each drug store can vary the rate that they charge for the dispensing fee. So even if you are using a drug plan as I am, they tell you to shop around for the best dispensing rate. However, when you have only one store in town you are captive. Something you have to take month after month. Why shouldn't you be able to get more than one months supply. Give a person three months supply. That saves two fees of filling the prescription. And that could amount to quite a bit over a period or two. When my prescription says six refills why shouldn't I just get the whole six months at once."

Put in very simple terms, "the drug stores are literally stealing money from the government and from the people too".

There was also criticism about the pharmaceutical practice of having higher dispensing fees for drugs that cost more.

> "One thing I want to point out, that I just found out is that the fee for filling out a prescription has just gone through the wall. I took a couple of notes. For every prescription they fill out under $130.00 in value the charge is $9.54. What really gets me that for prescriptions over $130.00, the charge is $14.31. I don't follow that. Why is it? It is the same activity."

Waste in the System

Although people are critical of problems in the Pharmacare system, they are also grateful for the system. Many go as far to say "We are thankful for what we get. We are very lucky". However this gratitude does not obscure their desire to see some changes made to eliminate what they identify and call 'waste in the system'. The reason they wanted to name 'waste in the system' was so something could be done to make the system more cost effective for everyone. Ultimately, government programs are financed by taxes said the participants and thus the responsibility of all of us who live here.

Related Costs in the Medical System of Private Doctors' Billing

It was a revelation to some participants when other participants shared the information that doctors are paid more for seniors as patients. They say this is an unnecessary cost to the medical system. They also note that doctor's practices of time allocation for them as patients vary greatly from but a few minutes to as much time as is needed.

> "Seniors don't know this. Why should this be? How many know when you go to the doctor, if you are a senior, the doctor is being paid more to see you than any other person. For the doctors it is nice to have a senior in your office. They are supposed to give us X number of minutes, which they don't. Some do. Some don't. Mine does because he knows I know how many minutes I am entitled to. He is being paid more for a senior's visit than any one else. It is $28.35 for seniors or else it is $23.00. It is about $5.00 more and at one time I think it was about $7.00 or $8.00 more."[47]

Trial Basis for Drugs

Several people suggested that doctors ought to prescribe drugs on a trial basis of seven days rather than thirty as most people knew within a few days whether they would be able to tolerate a particular drug. This trial basis would save on drugs and the cost of drugs people had to pay when they had to try several different drugs to find the right one. They also suggested that people be allowed to return pills they did not use to their doctors so that these drugs could be redistributed to people who needed them rather than simply thrown in the garbage or flushed down toilets.

Home Care and Prescription Drugs

While participants in the focus groups were all self-managers in their own prescription drug use, they were very aware of people who needed assistance to take their prescription drugs and the cost to the system when drug usage was incorrect. They were very critical of Home Care Nova Scotia's policy that home care workers could not help people to take their drugs.

> "I have two sisters in the rural area. And they had to have VON nurses travel twenty-five miles to come and give them their medication. And the home care worker came right behind the nurses. She was not allowed to touch the pills or give any assistance even when the pills were in a dish and ready for my sisters to take. That is a very big expense for the Department of Health."

Sometimes home care workers can be creative and simply give the person a glass of water to drink to take an already laid out pill. "But that means the person has to be physically capable of picking up the drug and using it in whatever way it has to be taken". This bending of the rules, however, was not the home care norm.

A Call for a National Pharmacare System

People who knew people who lived in other provinces were able to compare the drug coverage system between provinces.

> "I think the Pharmacare system in Nova Scotia is really not good at all compared to provinces like New Brunswick and Ontario. In Ontario, after

[47] As of April 1, 2004, doctors charge $33.44 per visit for a person 65 years of age and older and $26.13 per visit for a person 64 years of age and younger.

> a person reaches the age of sixty-five it does not matter what your income is. You do not pay for your drugs. In New Brunswick they have a plan that is better than Nova Scotia. Seniors with an income of over $30,000.00 a year pay a fee and everyone under that income does not. But Nova Scotia, I don't know what they are doing."

People who have moved from Ontario to Nova Scotia have the direct experience to understand the full ramification of the differences in payment methods between Ontario and Nova Scotia. "We moved here a little over a year ago and we find this Pharmacare system is terrible because we do not pay the annual fee in Ontario…. Then you come to Nova Scotia and you have to pay the annual fee and up to $30.00 per prescription."

Many participants supported the idea that

> "Pharmacare should be a uniform program across Canada. It should be administered by the Federal Government. Then, bingo, everyone would have the same thing. That is what the Romanow Report suggested. I say it would save money. It would stop the duplication stuff. And if people wanted to travel in Canada it would be easier for them. They would be free to live near their adult children. It would be a universal program."

3.3.4 Lobbying for Change

Some focus group participants expressed concern that the annual fee to Pharmacare "is going to go up, up, up and asked the rhetorical question "But what can you do? They tell us what we are going to pay. We don't tell them what we can pay." For many, the cost of drugs and thus access to prescription drugs is just starting to be an issue and to affect the way they think about lobbying for change. As one person said, "I am too young to get actively involved with changing the Pharmacare program but it is starting to become my personal concern. Things that concern me personally I tend to fight for and this concerns me."

People also see ways to cut costs and to make the system more efficient. One person for instance, suggests personal strategies like preparing forms for doctors simply to sign and send in with all the necessary receipts and legitimization of the particular drugs involved. Simplifying this process would allow doctors to excuse the discretionary fees and would make it easier and faster for Pharmacare to process exceptions rather than having to deal with each case on a one to one basis. Another suggested a means to redistribute the drugs that were not used by individuals in much the same way as eye glasses and hearing aids are redistributed to places and people who need them. And another suggested ongoing phone calls to try and get the Pharmacare board to meet and review exceptions more often than they do.

One person had managed to have a conflict with Pharmacare worked out to her individual satisfaction through some personal visits with Pharmacare bureaucrats but noted that these kinds of issues should be resolved for everyone not just her. There were also people who were involved in the earlier battle against the extension of the

length of patent protection in what people refer to as Bill C-91 which they saw as related to Pharmacare practices. "It is interesting that a federal policy can have such implications for provinces. We tried to fight that patent law when it happened but we felt like little voices in the wilderness."

Others concurred with these kinds of personal strategies but also suggested far more broad based political strategies. In every focus group, however, there were people who regularly expressed their concerns through their local senior organizations to a larger umbrella group such as Canadian Pensioners Concerned. Groups in which they were members made resolutions to a yearly congress or annual meeting. In one case there was a disenchanted former member of the Pharmacare Board that was disbanded prior to the Group of IX. This group is an independent group from the government that is drawn from nine major seniors' organizations to advise the government on the Pharmacare system. This person stated "there are lots of things that need to be done like better coverage of drugs and better education on the issue of prescription drug usage. It is very difficult to know what this group is doing as they don't communicate directly with seniors."

Individuals had a variety of stances toward the Group of IX. They ranged from being totally unaware to supportive to critical and distrusting. Skepticism about the current body advising the provincial government on the Pharmacare system and distrust of their recommendations was, however, expressed with some regularity. "I don't think the government cares what the Group of IX is. To be honest with you, I think that is why we have to look at other ways to get to the government."

One person who was involved with a large organized group of retirees noted that her organization was not allowed to become part of the Group of IX. The group was currently trying to get invited into the process[48]. When the annual fee was increased, one member of the focus groups noted that two of the nine members of this group, in which the person had a level of trust, did not 'sign on' with the recommendation for an increased fee. Both the Federation of Senior Citizens and the Canadian Association of Retired Persons were noted as abstaining on the vote.

3.3.5 Moving Toward Change: Participants' Perspective

Participants generated not only thematic content but also had very concrete suggestions to make about improving the efficiency and effectiveness of the Pharmacare system. The following are some of the highlighted suggestions related to seniors' use of prescription drugs:

- Support education that defines health in the broadest general sense.
- Provide more public education for seniors on the danger of prescription drugs and in particular specific prescription drugs and drug interactions.
- Provide education about the benefits of generic drugs.

[48] The organization may not have met the eligibility criteria for membership in the Group of IX.

- Change legislation to allow nurse practitioners to work more independently of doctors.
- Continue to have pharmacists provide oral and written information on prescription drugs.
- Work in consultation with Home Care Nova Scotia to assist seniors to properly take their prescription medications.

The following suggestions for improving Pharmacare itself include:

- ✓ Re-examining the universality of the program
- ✓ Re-examining the payment system
- ✓ Raising the income level before annual fees come into effect
- ✓ Including the co-pay of all prescription drugs (whether or not they are on the formulary) in reaching the maximum amount
- ✓ Encouraging private insurers to maintain their coverage of individuals past the age of sixty-five
- ✓ Dropping the penalty for late entry to the Pharmacare Program
- ✓ Moving to a national program with uniform standards
- ✓ Decreasing prescription drug costs by challenging the patent law
- ✓ Decreasing prescription drug cost by monitoring dispensing fees
- ✓ Improving the mechanism for getting drugs quickly onto 'the list'
- ✓ Establishing a system for trial prescriptions
- ✓ Allowing prescriptions to be dispensed for longer periods of time
- ✓ Requiring seniors' representation on the committee that makes decisions about the drugs that are covered by Pharmacare
- ✓ Including greater seniors' representation in the Pharmacare Advisory Group known as the Group of IX[49]
- ✓ Moving to a national standard for health care including uniform insurance coverage of seniors' prescription drugs.

As a whole, the focus group participants expressed a sincere interest in helping to make things better for those who were "less fortunate".

[49] It was unclear in what sense greater representation was wanted.

3.4 Conclusion and Summary of Findings for Focus Groups

Health is a major concern of focus group participants and most employ a variety of strategies to remain healthy. Drugs are part of the repertory of health sustaining activities used by the seniors with whom we spoke. The number of prescription drugs used by participants ranges from none (7 individuals) to more than 5 (11 individuals). Focus group participants also use over the counter medications and health aids like hearing aids and walkers. Approximately 75% of the respondents were on Nova Scotia Pharmacare, the rest were either on other plans or voluntarily had no coverage (1 person).

Being able to manage one's own medications was one criteria for individuals invited to participate in the focus groups, and participants took care of all of the steps required to obtain prescriptions. However, these seniors also appreciated some of the newer packaging designs that assisted them in self-monitoring their use of medication.

Findings were grounded in the particular changes made by Pharmacare prior to our research. The previous year a limit on the prescription co-pay had been introduced which had freed seniors from expensive charges for particular medications. This was a great relief to focus group participants so that in general individuals were not yet overly concerned about the cost of drugs under the Pharmacare arrangements in place in the fall of 2003. Most were grateful that the co-pay had been limited and some reported knowing people who reduced their drug intake for financial reasons. However, none said they did it themselves. While they were distressed about individuals' growing proportion of expenses for Pharmacare, they were not yet unable to pay. Participants did have reservations about what might lie down the road, when costs might rise against their fixed income. Major concerns did exist with the bureaucracy and the waste they saw in the Pharmacare system. Issues also arose about the listing of drugs on the Nova Scotia Formulary and the timing and cost issues of drugs not on the list. There was anger at the way in which patent protection to drug companies had been extended by the government of Brian Mulroney, making it more costly for them to get brand name drugs when required.

Pharmacists, most participants felt, were a better source of information on drugs, their side effects and the interaction between drugs than their doctors. Doctors were seen as having too little time to deal with each individual patient. Respondents, however, also resented the variation in the dispensing fees charged by drug stores, as they sought the least expensive way to get their medications.

4.0 Individual Interviews

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4.1 Methodology

The Project Coordinator contacted senior citizens' groups for the names of people who might be willing to be interviewed in the Project.[50] Interviews were then set up and conducted at the homes of interviewees. The interviews took between one and two hours and contained both open and closed-ended questions. All but one interview were tape-recorded. Each researcher interviewed ten people for a total of twenty interviews.[51]

The resulting transcripts were read by the researchers and particular themes in the responses identified as being most pertinent to the research objective of identifying factors which influence Nova Scotia seniors' experiences in taking prescription drugs. The transcripts were then re-examined and particular comments relating to the themes identified. The resulting analysis draws on a range of comments associated with the themes. Because of the small number of interviews, there is no attempt to quantify the comments or to examine associations between variables.

4.2 Individual Interview Sample

Sixteen women and four men were interviewed. One of those interviewed was 66 years old and four each were between 70-74 and 75-79 years in age. Over half of the group (eleven) were aged 80 or above. Seven were married and lived with a spouse. The remainder were either widowed or divorced and lived alone.[52] Half of those interviewed lived in the Halifax Regional Municipality, five lived in small towns and five in rural communities. Most were British or Canadian in ethnic background. One person had been born outside of Canada and two were people of visible minority groups.

Most of those interviewed had not been educated beyond the high school level. Fourteen reported annual incomes below $30,000; five had incomes between $30,000 and $45,000. One reported an annual income of $45,000 or more. All but one of the interviewees were members of a seniors' club. Everyone took at least one prescription medication, with the average number of prescriptions per person being 3.5. Fourteen

[50] The method used in the selection process resulted in active and socially involved seniors being interviewed. Any future research should include seniors in the wider community as well.
[51] The interview of a 62 year old person has been omitted from discussion here.
[52] Two women lived in individual units in a seniors' residence.

people participated in the Pharmacare program. The remainder were in drug insurance plans through their (or their spouses') pre-retirement insurance plans.

4.3 Findings

Agency: Independent Action and Thought

Although an examination of the extent to which seniors actively participate in their own health care, and make their own independent decisions about the medications they take, and their health generally, was not a key objective of this study, agency was a notable theme in the data. For example, when a physician recommended (or suggested) that a particular medication (e.g., Tylenol or gravol) might be taken to alleviate some type of discomfort (e.g., pain or dizziness), if there were unpleasant side-effects, some of the seniors interviewed decided on their own not to take it. Seniors also called their doctor about medications prescribed for serious medical conditions that caused serious unpleasant side-effects.

A number of respondents were adamant about the responsibility of the individual to take control of his or her own health; they believed, for example, that people should try to stay as healthy as possible through eating a good diet and getting adequate exercise. Some noted that although their physicians wanted to prescribe a medication for a particular condition, they informed the doctor that they wanted to try other alternatives first (e.g., diet and exercise instead of tablets for late-life onset diabetes).

When medications were unavoidable, they were taken but sometimes very reluctantly. As one woman stated, "I hate taking pills; I hate taking medications, but I have to take it now". Some were even reluctant to take aspirin on a regular basis as a preventive measure (anti-clotting) because they did not like to have to take medication of any kind ("...and there is a pill you can take — but there are side-effects, and I am anti-pill").

Herbal Medicines and Vitamins

Respondents were asked whether or not they regularly took any herbal medicines and/or vitamins. A majority were taking vitamins (calcium, vitamin D, vitamin C, vitamin E, and magnesium were the most common). Other supplements taken included halibut liver oil, evening primrose oil, zinc, beta carotene, cranberry juice extract, probiotics, and one or other of the B vitamins. In addition, some were taking one or more of a variety of herbal substances, including glucosamine, devil's claw, garlic, ginsing, and phosphatidylsine ps-30 complex (supposed to enhance memory).

In a number of cases calcium, vitamin D, and magnesium were taken by women who had been diagnosed with osteoporosis. In one case beta carotene had been recommended by an eye doctor, and a cardiologist had recommended folic acid. Most, however, were taking vitamins and herbal medicines because they had been recommended by friends or acquaintances, or individuals read about them somewhere and decided to try them. With a couple of exceptions, most interviewees were not spending a great deal of money on these alternative remedies and supplements. A

number of people pointed out that they generally tried to buy their vitamins when they were on sale.

Use of Prescription Drugs and Other Medications

The people interviewed reported that they usually took their prescribed drugs according to the directions given. However, nearly all the individuals interviewed had not been compliant in the use of prescribed or doctor recommended medications at one time or another.[53] More than half of the participants had stopped or reduced a dosage because they had experienced a drug side-effect. Two individuals had been hospitalized due to adverse drug reactions.

When a medication caused an adverse reaction, individuals usually consulted their doctors with respect to a dosage change or change in the actual medication. Not everyone consulted with doctors prior to making a dosage change. One individual explained that, after having had a doctor make a dosage change and having experienced an upset stomach as a result, "I tried [taking the increased dosage] for a while, but now I have reduced it to three. I take one and a half in the morning and one and a half at night. And [the doctor] wanted me to take two in the morning and two at night. So unbeknownst to her I take one and a half." Another person said that her doctor expected her to regulate the drug dosage according to her tolerance of it.

Some of those interviewed read articles about their medical conditions and the drugs used to treat them, and used this information to make decisions about drug use. Occasionally dosages were stopped or altered because the person perceived the medical condition to be controllable with a lesser dosage or to not warrant a medication at all. A few experimented with their dosages, reducing the amount taken if it seemed to cause them no ill-effects. Conditions which were considered less serious, such as a loss in bone density, tended to be those for which dosages were altered or stopped without first consulting doctors.

In a few cases, other factors figured in occurrences of non-compliance. Specifically, all the people interviewed had fixed routines associated with taking drugs. When routines were disrupted for some reason, dosages inadvertently had been skipped. However, this happened infrequently.

One person reported that drug costs had contributed to her discontinuing the use of a drug which she also thought wasn't helping anyway. In another case, a reduction in the dosage (due to side-effects) was also described as allowing the individual to stretch the prescription.

[53] Some people had not been compliant with more than one medication. One person reported non-compliance regarding an over-the counter medication only; the others had at least one experience of non-compliance with a prescribed medication.

Costs Associated with Prescription Drug Use

The majority of the seniors interviewed did not express immediate concern about either the co-payment cost or the premium of their insurance plan. However, some did point out that while they were thus far able to manage the cost, it was not easy to do so on a fixed income ("Not right now, but if I had to take more, if I was on more medications, it could be a real problem"). Moreover, while they personally were able to manage the cost, respondents frequently claimed to know of others who could not afford it. It is important to note that some of the women interviewed were not required to pay any premium because they were receiving the Federal Government's Guaranteed Income Supplement. For individuals whose income is that low, there is a Premium exemption.

For those people whose drug insurance plan premiums were deducted at the source of their pension checks, the costs of the premiums seemed to be less salient than for those who paid a premium directly to Pharmacare.

The interviewees used various strategies to meet their drug costs. For example, some put the costs of drugs on credit cards, thereby delaying payment. Some timed their drug purchases with the deposit of pension checks in the bank. The purchase of several months of a prescription at one time reduced dispensary fees. Many reported careful budgeting and prioritizing of expenditures with the purchase of drugs being done before other less essential items, which for one person included a needed hearing aid.

A number of the seniors interviewed expressed concern about the cost of medications generally, and were critical of drug patents which they believed were unfairly granted for too lengthy a period ("I do think the whole drug thing is too costly; they shouldn't be allowed to get such lengthy patents at all"). Interestingly, while some would want to know whether there was a generic medication that was cheaper, a number of people were adamant that they did not want to be prescribed a generic drug ("You can get generic, but I'd rather get the expensive because I know what it does for me"). A number of people were concerned that the generic medication would not be as effective as the trademark brand ("They say there is no difference, but you only get what you pay for sometimes").

Perception of Health Personnel

Respondents were asked questions pertaining to their sources of information on medications. They were, for example, asked whether when given a prescription they were also given the opportunity to discuss their medications with their doctor and whether they usually discussed their prescribed medications with the pharmacist.

While the majority of the research participants indicated that they do discuss their prescribed medications with their doctor, and that they were given the opportunity to do so, overall, satisfaction with pharmacists was higher and perception of pharmacists more positive than satisfaction with and perception of physicians. Respondents reported very positive experiences with pharmacists and their comments indicate that pharmacists are regarded as a highly valued and appreciated source of information on

medications. Typically, pharmacists were described as, "nice", "friendly", "very helpful", "excellent", and "extremely good". A number of people voiced their appreciation for the detailed information sheets that pharmacies generally now provide with each filled prescription.

Respondents were not, however, equally satisfied with their experiences with physicians. The majority of the seniors interviewed indicated that their doctors always gave them the opportunity to discuss their medications. However, it was the perception of some that their doctor was "too rushed" to discuss medications with them to the extent they would have wished. One respondent commented that "I get more information in 15 minutes (from the pharmacist) then I get from my doctor"; "I feel the physicians are in such a hurry these days". Others believe that physicians "are too free to prescribe new medications".

Understanding and Perception of the Pharmacare Program

To obtain information concerning seniors' knowledge about, and understanding of, the Pharmacare Program, respondents were asked whether they understood how the program works, and they were questioned about Pharmacare fees (the annual premium and co-payment fee). They were also asked whether they had any concerns about the Program.

Almost everyone interviewed seemed to have a good general understanding of how the Pharmacare Program works. Most also knew the amount of the annual premium they were required to pay and the co-payment fee. Overall, most seemed to be grateful for the existence of the Pharmacare Program, with many noting that without it the cost of prescription drugs would be a problem for them.

While the majority of the seniors interviewed were appreciative of the Pharmacare Program, there were a number of concerns expressed. The concern most frequently mentioned was the fact that some prescribed medications were not covered ("It should be covered, it is covered in New Brunswick"). In addition, the fact that they often did not find out that a particular medication was not covered until the moment they were informed at the pharmacy that they would be required to pay for it was a distressing problem ("...not until you stand at the counter, and that is a fundamental mistake"). If the medication was especially expensive, having to pay for the initial prescription was difficult for some. One woman, in fact, because of the cost of the first prescription, decided not to take the medication until she was able to get the necessary authorization from her physician ("I said, 'well, I will not take it, I can wait a few days until it will go through, rather than pay out that kind of money"). Some complained about going to get a refill of a prescription for a previously covered medication only to discover that the medication they had been taking had been recently "taken off the list" ("They should sent a notice to the people that are participating about these things").

Although not as frequently noted, another concern about the Pharmacare Program was the penalty that must be paid if an individual fails to apply for coverage before a

specified date, or if he or she decides to leave the program and join again later. Prior to April 2004, if individuals did not apply for coverage within three months of their eligibility date, or leave the program and later decide to join, they waited 90 days for their coverage to begin and paid one and a half times the premium for their coverage, every year thereafter. This penalty was seen as overly punitive, as "too stiff" and "quite unfair".[54]

Advocacy

All the people interviewed were members of a drug insurance plan, whether the Pharmacare Program or one in which they participated by virtue of prior employment as a teacher, in the military, or with the government. All of these plans could be changed with respect to increases in premiums and co-payments or with respect to the many regulations governing them. Thus all the interviewees were potentially faced with some of the same issues regardless of their specific plan. Questions were asked regarding how people thought individuals could be effective in influencing changes to their drug insurance plans.

Most interviewees did not consider that individuals could do a great deal in influencing the direction of change in the plans. They believed that only groups could bring about change and that it was important for people to work together. Some of the interviewees belonged to groups that did try to influence change in government policy or regulations associated with their respective drug plans; these groups were either local seniors' organizations or branches of organizations associated with their prior work life. These interviewees were aware of the various levels through which information or lobbying moved. A few were aware of the Group of IX, although they were not clear about what they actually did.

A few interviewees indicated they would directly contact people working in the Pharmacare office, their current Member of the Legislative Assembly or other known individuals if they needed specific information or help associated with their prescription drug insurance plans. These comments seemed to relate to problems that were perceived as being those of individuals and thus solved by individuals.

4.4 Conclusions from Individual Interviews

The use of prescription drugs is part of the lives of all the Nova Scotians interviewed. Most of these seniors try to be responsible for their own good health, and many take vitamins or herbal substances to that end. With the help of the information received from health professionals, they try to take their prescription drugs and other medications appropriately. Directions are usually followed, however exceptions may occur, for example, when the seniors experience adverse drug effects.

[54] As of April 2004, this penalty was limited to a period of five years.

The costs of taking prescription drugs generally and the costs associated with the Pharmacare Program in particular were of some concern to the seniors interviewed, but they currently managed through careful budgeting and other strategies to meet those costs. Many of these seniors also have concerns about the penalty for late enrollment and the procedures associated with the Formulary in the Pharmacare Program. Although a few consider that people as individuals may try to influence the Pharmacare Program, most believe that only groups can have any effect in working towards change.

5.0 Nova Scotia Seniors' Organizations - Group of IX

Dr. Nanciellen Davis

Financial costs may affect seniors' use of prescription drugs, though their effects are far from clear. In Nova Scotia, many seniors have drug costs partially covered through the Nova Scotia Seniors' Pharmacare Program. The regulations guiding the Pharmacare Program are periodically reviewed, and the Nova Scotia Seniors' Organizations - Group of IX advises the government regarding potential changes to the program. This section of the Report describes the Group of IX and its advisory role.

5.1 Methodology

In the Nova Scotia provincial government, the Senior Citizens' Secretariat coordinates senior citizens' affairs. The Group of IX, which includes representatives from the nine major organizations serving seniors in the province, works closely with the Secretariat. All current members of the Group of IX and the Executive Director of the Senior Citizens' Secretariat were interviewed with a format including open and closed-ended questions.[55] The interviews took between one and two hours, and were done at times and places convenient for the interviewees. Interviews were tape-recorded and interviewees were given the option of reading tape transcripts and correcting or deleting material in the transcripts. Two interviews were done by telephone, for which there were no recorded transcripts. Interviews were done largely in a four-week period, at the end of November and beginning of December, 2003.[56]

5.2 Group of IX Members

Currently three women and six men sit on the Group of IX. Three of these are less than 60 years of age, one is between 60 and 64, and the remaining five are 65 or over**.** Most members of the Group are so by virtue of their holding a leadership position, such as provincial president, in one of the nine organizations they represent. The representative of Canada's Association for the Fifty-Plus (CARP), which has no provincial organization, is appointed by the national body. There is no fixed term on the Group. Individuals may serve more than one term, depending on the procedures of each organization in choosing its representative. Members serve in a volunteer capacity.

Organizations represented in the Group vary considerably in size, with the smallest having a membership of fifty-five to sixty and the largest 30,000 plus in the province.

[55] Ms. Jennifer Watts interviewed five Group members; Dr. Nanciellen Davis interviewed the remaining four and the Executive Director of the Secretariat. One Group member and his alternate participated in a joint interview.

[56] At the time the research was conducted the Group of IX was advising the government regarding changes to the Pharmacare program. The Group was likely wary of interviews at this politically sensitive time. Their caution may have influenced some of the interview responses.

The membership of organizations is distributed throughout the province. The Halifax Regional Municipality (HRM), as the largest urban area, has high concentrations of members in several of the organizations. Regroupement des Aînées et Aînés de la Nouvelle-Écosse has large numbers of its members in Acadian areas outside of HRM.

The size and age composition of the organizations reflect their different mandates. For example, the Gerontology Association of Nova Scotia is the smallest group and includes people of all ages who are interested in gerontology. Several organizations numbering thousands of members, such as the Retired Teachers Association of Nova Scotia, include retirees who are less than 65 years of age. They may not be part of the Pharmacare Program due to their younger age or due to their participation in drug insurance plans associated with their pre-retirement occupations. The mandates of all organizations reflect overlapping interests, i.e. issues of concern to Nova Scotia seniors, but they also include interests that are unique to each group or that do not directly relate to seniors.

The organizations are vertically organized. Membership is usually organized in local branches, which in turn are part of provincial and national organizations. Members' concerns are voiced at the local level, and, if deemed appropriate, passed on to higher levels for action. Information from the provincial level is also passed down to local branches and their members. Most organizations are affiliated with national bodies. However, Regroupement des Aînées et Aînés de la Nouvelle-Écosse is based in Nova Scotia only and Canada's Association for the Fifty-Plus has no provincial organization in Nova Scotia.

5.3 The Work of the Group of IX

The Group of IX is an "umbrella" group that includes representatives of all the major groups associated with seniors in the province; their combined membership may include 120,000 people, or about one-eighth of the province's population.[57]

The central role of the Group is an advocacy one on behalf of seniors. In this capacity the Group consults directly with Deputy Ministers of key departments at monthly meetings with staff of the Senior Citizens' Secretariat. The Group can request a meeting with representatives from government departments if information is needed on particular topics. The Group makes recommendations and prepares briefs for submission to provincial government departments. It has done so as well in national fora, such as that of the Romanow Commission and the Prime Minister's Task Force on Aging.

The Group also sees itself as a conduit of information from government sources to seniors and for concerns from seniors to government. The Group conveys information through its sitting members to their respective organizations, and concerns are

[57] Because of the nature of the groups, not all of their members are seniors.

conveyed to the Group of IX through those same members. The actual movement of information in particular organizations is done in different and often multiple ways: by print newsletters, e-mail and web sites, oral reports at meetings of organizational executives and branches, telephone and fax machine, and by word of mouth, the latter especially so in rural communities.

Generally members describe the Group as working well together. Occasionally an important vote will not be unanimous. On one occasion two Group members did not sign the Group's recommendation regarding changes to the Pharmacare program. The lack of consensus reportedly did not negatively affect on-going working relationships within the Group.

The Group views the relationship with the Secretariat to be helpful. The monthly meetings of the Group are held in the offices of the Secretariat, and the Secretariat Executive Director and some staff members attend the meetings. In their work, the Group often obtains information through the Secretariat staff, and this supportive role of the Secretariat is highly valued by the Group.

The Group of IX as an organization does not normally deal directly with seniors on a face to face basis. Twice a year the Group participates in a consultative meeting organized by the Secretariat in Halifax. Representatives of seniors' councils and centers, as well as individuals, meet Group members and representatives of the Secretariat at the meeting.

The Chair of the Group is sometimes called on by the media to react to particular issues, such as changes to the Pharmacare Program. Other members do not normally represent the Group to the media, though they may be designated by the chair to do so.

5.4 The Group of IX and Pharmacare

The Group advises the Department of Health on the Pharmacare Program, most usually with reference to the amount of the annual premium, the co-payment, the income level below which the premium is waived, and the penalty for late registration in the program. Other concerns communicated to the government relate to the Formulary. Costly new but effective drugs which are unavailable in generic form and not on the Formulary are prohibitively expensive for many seniors. Also of concern is the financial wastage that results when new prescriptions cause adverse drug reactions and seniors are unable to return the medications for reimbursement.

At various points when the government was considering changes to the guidelines associated with Pharmacare, the Group lobbied the government and successfully negotiated compromises to the changes. Group members see themselves at such times as being in a difficult position. They want to protect the interests of seniors, but they also face strong arguments from the government regarding the accelerating costs

of Pharmacare. Members realize they may be criticized for any failure to stop increased costs to seniors.

The Group has participated in other initiatives regarding health and drug programs. For example, it has supported attempts to educate seniors regarding the proper use of medications and has endorsed pamphlets on that topic. Members of the Group also sit on Secretariat committees, some of which deal with health issues. Reportedly many seniors are unaware of government services to which they are entitled, a problem the Group hopes to address in the future.

The Group is aware that many Nova Scotians do not know of their work or even their existence, and some are concerned regarding their low profile as well as with seniors' lack of awareness that, through the Group, seniors have a way of trying to influence government policy.

5.5 Conclusion from the Group of IX Interviews

Well-organized groups representing seniors' interests are found in every corner of Nova Scotia. The Group of IX links these organizations and coordinates efforts to advise the government and influence policy. The Group of IX is a relatively unique organization in Canada, with many seniors' organizations in other provinces interested in the model of seniors' advocacy it represents.

The low visibility of the Group among many seniors at least partially reflects their organizational distance. The Group deals only indirectly with individual seniors through several organizational layers.

The Group of IX and the Secretariat work closely together, a situation in which the Group could be co-opted in their efforts. Both the Group of IX and the Executive Director of the Secretariat are aware of this potential problem but do not consider it has actually been the case in their work on behalf of seniors.

6.0 Conclusions

This concluding section of the report focuses on four issues, which were evident in all of the data collected in this research. For each issue, we highlight the most significant themes from our findings.

6.1 Staying Healthy

Despite differences in methodologies and questions asked, all forms of data collection found that seniors were concerned about their health, and with maintaining their health. Across the methodologies the researchers found that nutrition was an important health maintenance activity. This included eating healthy foods, having a balanced diet, and taking vitamins and other food supplements. Exercise, or just being active, was also widely identified as a way in which seniors tried to maintain their health. Individuals in focus groups identified other activities which they saw as essential to a healthy life: participation in group social activities such as seniors clubs, having a spiritual life involving church participation and/or individual faith practice, and involvement with other individuals on a one-to-one basis. The survey results also found an important positive effect on one's health of living together with one's spouse or partner. The individual interviews and focus groups revealed that a number of seniors were adamant about taking responsibility for their own health.

6.2 Use of Prescription Drugs and Other Medications

While many seniors reported reluctance to take prescription drugs, the vast majority of those surveyed and interviewed indicated taking at least one, and often several prescribed drugs. Almost all seniors used a drug store to fill their prescriptions, and 99% of survey respondents usually used the same drugstore. Our research also showed that almost all seniors regarded pharmacists very positively, for the information they provided, their helpfulness and friendliness. There was a wider range of opinions on the role of doctors, with a number of seniors indicating that doctors were often too busy to adequately discuss medications with their patients.

Forgetting to take medication was a relatively frequent occurrence, with the most common memory aid being to have a routine such as taking one's prescription at a regular time or with meals. A substantial number of seniors indicated that they chose to diverge from an original prescription including stopping the medication or reducing the dosage. The most important reason was that there was an adverse reaction, but others stopped taking the drugs when their condition improved, or when the drugs did not have the desired result. The focus groups and interviews indicated that many patients who chose to diverge subsequently had discussions with their doctor or pharmacist about it, if there was a serious side effect or adverse reaction. They were more likely to stop or adjust prescriptions on their own for less serious medical conditions.

The survey results indicated that there were two distinct major types of non-compliance: not filling or refilling a prescription, and adjusting a prescription. Not filling a prescription is largely situational, while adjusting a prescription is a more consistent individual orientation. The survey also found that although marital status and income both affected non-compliance, the relationship between these variables was not straightforward. People with lower incomes were generally more non-compliant. However, people with lower incomes were far less likely to be non-compliant if they were living with a spouse or partner. In contrast, among people with higher incomes, living as a couple had no impact on non-compliance.

Prescription drugs were not the only form of medication taken by seniors. Many took over the counter medications such as aspirin or allergy medication, with women more likely to take such medication. Others were taking herbal remedies and vitamins with women, again, more likely to take these products.

6.3 Nova Scotia Seniors' Pharmacare Program

The Pharmacare program in Nova Scotia has evolved from one completely paid for by the province to a system with an annual premium and a required co-pay per prescription. These evolving changes have had an impact on the costs for seniors participating in the program. In the year prior to this research, there was not a maximum limit on the co-payment for prescription drugs. This led to dissatisfaction among seniors, and lobbying and advocacy work resulted in a change in the policy. Our research was done in the year after a maximum co-pay of $30 for individual prescriptions was introduced into the plan. Subsequent to the research, changes made in Pharmacare for the year beginning in April 2004 included a $54 increase in the annual premium.

The results of research on the role of income on prescription drug use were found to depend on the type of methodology used. In individual interviews and focus groups, few participants said they could not access prescription drugs because of the cost. Some participants did point out that while they were thus far able to manage the cost, it was not easy to do so on a fixed income. Also, individuals frequently claimed to know of others who could not afford the cost of their medications. In the anonymous survey, many more voiced personal concern and general concern about the cost of prescribed medicines, and person with lower income were found to be more likely to not fill or refill or to adjust a prescription.

The majority of the seniors who completed the survey were somewhat satisfied with the coverage of drugs within the Formulary of the Pharmacare Program. In the qualitative data (focus groups and individual interviews), in particular, there were concerns expressed about the fact that some prescription drugs were not covered.

Overall, most seniors were appreciative of the existence of the Pharmacare Program, with many noting that, without the Program, the purchase of prescription drugs would be difficult.

6.4 Advocacy

The methodologies used in this research tended to collect data which reflected the experiences of seniors involved in clubs and organizations, because it was through these formal bodies that the majority of our participants were obtained. In general, while most respondents did not feel they individually could do a great deal to influence Pharmacare policy, it is not surprising that many believed that collective action is an effective way to have their voices heard. The forms that advocacy work has taken have been letters, resolutions coming from individual clubs forwarded to provincial level organizations, and direct contact with politicians.

The Nova Scotia Seniors' Organizations - Group of IX, an umbrella group representing seniors' organizations, is mandated by the Senior Citizens Secretariat to serve as a consultative body to the provincial government and as a channel of information for seniors. Members of the Group of IX who were interviewed saw their relationship with the Secretariat as supportive and helpful. Their purpose and activities were not clearly visible to most of the 20 seniors individually interviewed, and members of the Group of IX interviewed recognized that there is room for improvement in communication. Nevertheless they have advised and lobbied the government, with some success, on cost and coverage, and other aspects of the Pharmacare Program.

6.5 Suggestions for Future Research

Members of the research team, and the staff of the Nova Scotia Centre on Aging, view this study as a means to better understand the behaviour patterns of seniors in Nova Scotia in relation to prescription drug use

The study has clearly demonstrated that local pharmacies play a valued and important role in supporting seniors' informed use of prescription drugs. Given their central role in seniors' satisfaction with prescription drug use, further study in this area would be extremely beneficial. The fact that in 2003, 22% is charged as pharmacist fees ($24,867,488 of the total $113,322,111 drug cost paid by Pharmacare) in the Pharmacare statistical report indicates a need to explore in depth the costs and benefits of pharmacies and pharmacists to the Pharmacare Program[58].

A significant number of people studied intentionally did not comply with prescription instructions. Non-compliance is affected by both income-related measures and social factors in a complex way. Further research is needed to sort out how objective

[58] Supplement to Annual Statistics Reports, Medical Services Insurance Tables, 12 months ending March 31,2002. Health Economics, Nova Scotia Department of Health, February 2003, p. 66.

measures of income, subjective assessments of prescription drug affordability and social factors such as marital status and connection to others all interrelate and interact to affect non-compliance with prescription drug use.

This study has examined prescription drug use in one province of Canada: Nova Scotia. Given the variation in provincial prescription drug use plans for seniors across Canada, and the completely different approach taken in the United States, comparative studies would also be useful.

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