

EXPLORING THE PROCESS OF COMMUNITY MOBILITY
IN THE LIVES OF OLDER, COMMUNITY-DWELLING
WOMEN IN WINNIPEG

Marcia Lynn Ptosnick Finlayson

A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfilment of the Requirements for the Degree of

MASTER OF SCIENCE

Department of Community Health Sciences
University of Manitoba

Winnipeg, Manitoba
© July, 1995



National Library
of Canada

Bibliothèque nationale
du Canada

Acquisitions and
Bibliographic Services Branch

Direction des acquisitions et
des services bibliographiques

395 Wellington Street
Ottawa, Ontario
K1A 0N4

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file *Votre référence*

Our file *Notre référence*

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-612-13123-8

Canada

Name Marcia Lynn Ptosnick Finlayson.

Dissertation Abstracts International is arranged by broad, general subject categories. Please select the one subject which most nearly describes the content of your dissertation. Enter the corresponding four-digit code in the spaces provided.

Health Sciences - Public Health.

0573

U·M·I

SUBJECT TERM

SUBJECT CODE

Subject Categories

THE HUMANITIES AND SOCIAL SCIENCES

COMMUNICATIONS AND THE ARTS

Architecture 0729
 Art History 0377
 Cinema 0900
 Dance 0378
 Fine Arts 0357
 Information Science 0723
 Journalism 0391
 Library Science 0399
 Mass Communications 0708
 Music 0413
 Speech Communication 0459
 Theater 0465

Psychology 0525
 Reading 0535
 Religious 0527
 Sciences 0714
 Secondary 0533
 Social Sciences 0534
 Sociology of 0340
 Special 0529
 Teacher Training 0530
 Technology 0710
 Tests and Measurements 0288
 Vocational 0747

PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy 0422
 Religion
 General 0318
 Biblical Studies 0321
 Clergy 0319
 History of 0320
 Philosophy of 0322
 Theology 0469

SOCIAL SCIENCES

American Studies 0323
 Anthropology
 Archaeology 0324
 Cultural 0326
 Physical 0327
 Business Administration
 General 0310
 Accounting 0272
 Banking 0770
 Management 0454
 Marketing 0338
 Canadian Studies 0385
 Economics
 General 0501
 Agricultural 0503
 Commerce-Business 0505
 Finance 0508
 History 0509
 Labor 0510
 Theory 0511
 Folklore 0358
 Geography 0366
 Gerontology 0351
 History
 General 0578

Ancient 0579
 Medieval 0581
 Modern 0582
 Black 0328
 African 0331
 Asia, Australia and Oceania 0332
 Canadian 0334
 European 0335
 Latin American 0336
 Middle Eastern 0333
 United States 0337
 History of Science 0585
 Law 0398
 Political Science
 General 0615
 International Law and
 Relations 0616
 Public Administration 0617
 Recreation 0814
 Social Work 0452
 Sociology
 General 0626
 Criminology and Penology 0627
 Demography 0938
 Ethnic and Racial Studies 0631
 Individual and Family
 Studies 0628
 Industrial and Labor
 Relations 0629
 Public and Social Welfare 0630
 Social Structure and
 Development 0700
 Theory and Methods 0344
 Transportation 0709
 Urban and Regional Planning 0999
 Women's Studies 0453

EDUCATION

General 0515
 Administration 0514
 Adult and Continuing 0516
 Agricultural 0517
 Art 0273
 Bilingual and Multicultural 0282
 Business 0688
 Community College 0275
 Curriculum and Instruction 0727
 Early Childhood 0518
 Elementary 0524
 Finance 0277
 Guidance and Counseling 0519
 Health 0680
 Higher 0745
 History of 0520
 Home Economics 0278
 Industrial 0521
 Language and Literature 0279
 Mathematics 0280
 Music 0522
 Philosophy of 0998
 Physical 0523

LANGUAGE, LITERATURE AND LINGUISTICS

Language
 General 0679
 Ancient 0289
 Linguistics 0290
 Modern 0291
 Literature
 General 0401
 Classical 0294
 Comparative 0295
 Medieval 0297
 Modern 0298
 African 0316
 American 0591
 Asian 0305
 Canadian (English) 0352
 Canadian (French) 0355
 English 0593
 Germanic 0311
 Latin American 0312
 Middle Eastern 0315
 Romance 0313
 Slavic and East European 0314

THE SCIENCES AND ENGINEERING

BIOLOGICAL SCIENCES

Agriculture
 General 0473
 Agronomy 0285
 Animal Culture and
 Nutrition 0475
 Animal Pathology 0476
 Food Science and
 Technology 0359
 Forestry and Wildlife 0478
 Plant Culture 0479
 Plant Pathology 0480
 Plant Physiology 0817
 Range Management 0777
 Wood Technology 0746
 Biology
 General 0306
 Anatomy 0287
 Biostatistics 0308
 Botany 0309
 Cell 0379
 Ecology 0329
 Entomology 0353
 Genetics 0369
 Limnology 0793
 Microbiology 0410
 Molecular 0307
 Neuroscience 0317
 Oceanography 0416
 Physiology 0433
 Radiation 0821
 Veterinary Science 0778
 Zoology 0472
 Biophysics
 General 0786
 Medical 0760

Geodesy 0370
 Geology 0372
 Geophysics 0373
 Hydrology 0388
 Mineralogy 0411
 Paleobotany 0345
 Paleocology 0426
 Paleontology 0418
 Paleozoology 0985
 Palynology 0427
 Physical Geography 0368
 Physical Oceanography 0415

HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences 0768
 Health Sciences
 General 0566
 Audiology 0300
 Chemotherapy 0992
 Dentistry 0567
 Education 0350
 Hospital Management 0769
 Human Development 0758
 Immunology 0982
 Medicine and Surgery 0564
 Mental Health 0347
 Nursing 0569
 Nutrition 0570
 Obstetrics and Gynecology 0380
 Occupational Health and
 Therapy 0354
 Ophthalmology 0381
 Pathology 0571
 Pharmacology 0419
 Pharmacy 0572
 Physical Therapy 0382
 Public Health 0573
 Radiology 0574
 Recreation 0575

Speech Pathology 0460
 Toxicology 0383
 Home Economics 0386

PHYSICAL SCIENCES

Pure Sciences
 Chemistry
 General 0485
 Agricultural 0749
 Analytical 0486
 Biochemistry 0487
 Inorganic 0488
 Nuclear 0738
 Organic 0490
 Pharmaceutical 0491
 Physical 0494
 Polymer 0495
 Radiation 0754
 Mathematics 0405
 Physics
 General 0605
 Acoustics 0986
 Astronomy and
 Astrophysics 0606
 Atmospheric Science 0608
 Atomic 0748
 Electronics and Electricity 0607
 Elementary Particles and
 High Energy 0798
 Fluid and Plasma 0759
 Molecular 0609
 Nuclear 0610
 Optics 0752
 Radiation 0756
 Solid State 0611
 Statistics 0463
Applied Sciences
 Applied Mechanics 0346
 Computer Science 0984

Engineering
 General 0537
 Aerospace 0538
 Agricultural 0539
 Automotive 0540
 Biomedical 0541
 Chemical 0542
 Civil 0543
 Electronics and Electrical 0544
 Heat and Thermodynamics 0348
 Hydraulic 0545
 Industrial 0546
 Marine 0547
 Materials Science 0794
 Mechanical 0548
 Metallurgy 0743
 Mining 0551
 Nuclear 0552
 Packaging 0549
 Petroleum 0765
 Sanitary and Municipal 0554
 System Science 0790
 Geotechnology 0428
 Operations Research 0796
 Plastics Technology 0795
 Textile Technology 0994

PSYCHOLOGY

General 0621
 Behavioral 0384
 Clinical 0622
 Developmental 0620
 Experimental 0623
 Industrial 0624
 Personality 0625
 Physiological 0989
 Psychobiology 0349
 Psychometrics 0632
 Social 0451



Nom _____

Dissertation Abstracts International est organisé en catégories de sujets. Veuillez s.v.p. choisir le sujet qui décrit le mieux votre thèse et inscrivez le code numérique approprié dans l'espace réservé ci-dessous.



SUJET

CODE DE SUJET

Catégories par sujets

HUMANITÉS ET SCIENCES SOCIALES

COMMUNICATIONS ET LES ARTS

Architecture	0729
Beaux-arts	0357
Bibliothéconomie	0399
Cinéma	0900
Communication verbale	0459
Communications	0708
Danse	0378
Histoire de l'art	0377
Journalisme	0391
Musique	0413
Sciences de l'information	0723
Théâtre	0465

ÉDUCATION

Généralités	515
Administration	0514
Art	0273
Collèges communautaires	0275
Commerce	0688
Économie domestique	0278
Éducation permanente	0516
Éducation préscolaire	0518
Éducation sanitaire	0680
Enseignement agricole	0517
Enseignement bilingue et multiculturel	0282
Enseignement industriel	0521
Enseignement primaire	0524
Enseignement professionnel	0747
Enseignement religieux	0527
Enseignement secondaire	0533
Enseignement spécial	0529
Enseignement supérieur	0745
Évaluation	0288
Finances	0277
Formation des enseignants	0530
Histoire de l'éducation	0520
Langues et littérature	0279

Lecture	0535
Mathématiques	0280
Musique	0522
Orientalisation et consultation	0519
Philosophie de l'éducation	0998
Physique	0523
Programmes d'études et enseignement	0727
Psychologie	0525
Sciences	0714
Sciences sociales	0534
Sociologie de l'éducation	0340
Technologie	0710

LANGUE, LITTÉRATURE ET LINGUISTIQUE

Langues	
Généralités	0679
Anciennes	0289
Linguistique	0290
Modernes	0291
Littérature	
Généralités	0401
Anciennes	0294
Comparée	0295
Médiévale	0297
Moderne	0298
Africaine	0316
Américaine	0591
Anglaise	0593
Asiatique	0305
Canadienne (Anglaise)	0352
Canadienne (Française)	0355
Germanique	0311
Latino-américaine	0312
Moyen-orientale	0315
Romane	0313
Slave et est-européenne	0314

PHILOSOPHIE, RELIGION ET THÉOLOGIE

Philosophie	0422
Religion	
Généralités	0318
Clergé	0319
Études bibliques	0321
Histoire des religions	0320
Philosophie de la religion	0322
Théologie	0469

SCIENCES SOCIALES

Anthropologie	
Archéologie	0324
Culturelle	0326
Physique	0327
Droit	0398
Économie	
Généralités	0501
Commerce-Affaires	0505
Économie agricole	0503
Économie du travail	0510
Finances	0508
Histoire	0509
Théorie	0511
Études américaines	0323
Études canadiennes	0385
Études féministes	0453
Folklore	0358
Géographie	0366
Gérontologie	0351
Gestion des affaires	
Généralités	0310
Administration	0454
Banques	0770
Comptabilité	0272
Marketing	0338
Histoire	
Histoire générale	0578

Ancienne	0579
Médiévale	0581
Moderne	0582
Histoire des noirs	0328
Africaine	0331
Canadienne	0334
États-Unis	0337
Européenne	0335
Moyen-orientale	0333
Latino-américaine	0336
Asie, Australie et Océanie	0332
Histoire des sciences	0585
Loisirs	0814
Planification urbaine et régionale	0999
Science politique	
Généralités	0615
Administration publique	0617
Droit et relations internationales	0616
Sociologie	
Généralités	0626
Aide et bien-être social	0630
Criminologie et établissements pénitentiaires	0627
Démographie	0938
Études de l'individu et de la famille	0628
Études des relations interethniques et des relations raciales	0631
Structure et développement social	0700
Théorie et méthodes	0344
Travail et relations industrielles	0629
Transports	0709
Travail social	0452

SCIENCES ET INGÉNIERIE

SCIENCES BIOLOGIQUES

Agriculture	
Généralités	0473
Agronomie	0285
Alimentation et technologie alimentaire	0359
Culture	0479
Élevage et alimentation	0475
Exploitation des pâturages	0777
Pathologie animale	0476
Pathologie végétale	0480
Physiologie végétale	0817
Sylviculture et taune	0478
Technologie du bois	0746
Biologie	
Généralités	0306
Anatomie	0287
Biologie (Statistiques)	0308
Biologie moléculaire	0307
Botanique	0309
Cellule	0379
Écologie	0329
Entomologie	0353
Génétique	0369
Limnologie	0793
Microbiologie	0410
Neurologie	0317
Océanographie	0416
Physiologie	0433
Radiation	0821
Science vétérinaire	0778
Zoologie	0472
Biophysique	
Généralités	0786
Médicale	0760

Géologie	0372
Géophysique	0373
Hydrologie	0388
Minéralogie	0411
Océanographie physique	0415
Paléobotanique	0345
Paléocécologie	0426
Paléontologie	0418
Paléozoologie	0985
Palynologie	0427

SCIENCES DE LA SANTÉ ET DE L'ENVIRONNEMENT

Économie domestique	0386
Sciences de l'environnement	0768
Sciences de la santé	
Généralités	0566
Administration des hôpitaux	0769
Alimentation et nutrition	0570
Audiologie	0300
Chimiothérapie	0992
Dentisterie	0567
Développement humain	0758
Enseignement	0350
Immunologie	0982
Loisirs	0575
Médecine du travail et thérapie	0354
Médecine et chirurgie	0564
Obstétrique et gynécologie	0380
Ophtalmologie	0381
Orthophonie	0460
Pathologie	0571
Pharmacie	0572
Pharmacologie	0419
Physiothérapie	0382
Radiologie	0574
Santé mentale	0347
Santé publique	0573
Soins infirmiers	0569
Toxicologie	0383

SCIENCES PHYSIQUES

Sciences Pures	
Chimie	
Généralités	0485
Biochimie	487
Chimie agricole	0749
Chimie analytique	0486
Chimie minérale	0488
Chimie nucléaire	0738
Chimie organique	0490
Chimie pharmaceutique	0491
Physique	0494
Polymères	0495
Radiation	0754
Mathématiques	0405
Physique	
Généralités	0605
Acoustique	0986
Astronomie et astrophysique	0606
Électromagnétique et électricité	0607
Fluides et plasma	0759
Météorologie	0608
Optique	0752
Particules (Physique nucléaire)	0798
Physique atomique	0748
Physique de l'état solide	0611
Physique moléculaire	0609
Physique nucléaire	0610
Radiation	0756
Statistiques	0463

Sciences Appliquées Et Technologie

Informatique	0984
Ingénierie	
Généralités	0537
Agricole	0539
Automobile	0540

Biomédicale	0541
Chaleur et thermodynamique	0348
Conditionnement (Emballage)	0549
Génie aérospatial	0538
Génie chimique	0542
Génie civil	0543
Génie électronique et électrique	0544
Génie industriel	0546
Génie mécanique	0548
Génie nucléaire	0552
Ingénierie des systèmes	0790
Mécanique navale	0547
Métallurgie	0743
Science des matériaux	0794
Technique du pétrole	0765
Technique minière	0551
Techniques sanitaires et municipales	0554
Technologie hydraulique	0545
Mécanique appliquée	0346
Géotechnologie	0428
Matériaux plastiques (Technologie)	0795
Recherche opérationnelle	0796
Textiles et tissus (Technologie)	0794

PSYCHOLOGIE

Généralités	0621
Personnalité	0625
Psychobiologie	0349
Psychologie clinique	0622
Psychologie du comportement	0384
Psychologie du développement	0620
Psychologie expérimentale	0623
Psychologie industrielle	0624
Psychologie physiologique	0989
Psychologie sociale	0451
Psychométrie	0632



EXPLORING THE PROCESS OF COMMUNITY MOBILITY
IN THE LIVES OF OLDER, COMMUNITY-DWELLING
WOMEN IN WINNIPEG

BY

MARCIA LYNN PTOSNICK FINLAYSON

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba
in partial fulfillment of the requirements of the degree of

MASTER OF SCIENCE

© 1995

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA
to lend or sell copies of this thesis, to the NATIONAL LIBRARY OF CANADA to
microfilm this thesis and to lend or sell copies of the film, and LIBRARY
MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive
extracts from it may be printed or other-wise reproduced without the author's written
permission.

To Mom, Dad & Greg,

With love, appreciation and thanks

ABSTRACT

The largest group of non-institutionalized people who experience some form of activity limitation is community-dwelling women 65 years and older. Many of their limitations are related to mobility within the community. Although numerous studies have explored the transportation of the elderly population, there does not appear to have been any previous studies that have specifically considered the community mobility of older women.

As a result, this qualitative study explored the impact of community mobility on the lives of older community-dwelling women in Winnipeg, Manitoba. The objectives of the study were to describe the nature and importance of community mobility in the lives of older women; to identify and describe the factors influencing this mobility; and to investigate whether variations in the women's personal factors, community context and perception of the environment effect the impact of community mobility on their lives.

Semi-structured in-depth interviews and a cognitive mapping exercise were completed with 23 older women (mean age=75.9 years) in their own homes. Sample selection involved the use of a literature-based theoretical sampling matrix and the random selection of names from an existing data base focused on aging. The women identified four dimensions, or purposes, of their community mobility including outings for self-care, volunteer work, leisure and social obligation. They also identified a range of personal, physical environment and service system factors that influenced their community mobility, both positively and negatively. Thematic analysis of the

interview transcripts identified the importance of convenience, organization, and adaptation for continued community mobility. Being able to drive was very important to many of the women and viewed as a mitigator of burden. Women felt that community mobility had the greatest impact on their mental health. Modified content analysis of the cognitive maps supported the importance of community mobility in the lives of the women interviewed, and provided insight into the nature and scope of their travels. The findings of the study have potential implications for hospital discharge teams, community programmers and policy makers.

ACKNOWLEDGEMENTS

Although this thesis is a compilation of my work, thoughts and ideas, many people have contributed to its process and deserve recognition. They include:

The people who shaped my thinking the most over the past year have been the twenty-three women who agreed to participate in this study. I appreciated their stories, their opinions and their time. Thanks to each of them for deciding that my research was something to which they wanted to contribute.

Thank-you to my advisor, Joseph Kaufert, and my committee members, Betty Havens and Laurel Strain. Each of them shared their busy time with me to discuss ideas, challenge my thinking and encourage me when the task seemed overwhelming. Together they showed me how to listen and learn from the women's stories, to relate what I was hearing to course work I had completed, and to produce a meaningful, academic document of which I am proud.

Thanks also to my graduate student colleagues who guided me through the graduate school process. The diversity of Community Health Sciences students provided me with the opportunity to view ideas from many different perspectives. Special thanks to Gail Marchessault and Laurie Ringaert (Community Health Sciences), and Gina Sylvestre (Human Geography) for sharing ideas and articles with me.

Very special thanks go to my husband Greg. He has read drafts of this thesis, and offered editorial assistance. He willingly went out in the evenings to photocopy chapters for my committee so I could stay home and write "just one more section."

When final revisions were being made, he spent many hours ensuring that all the cross-references were correct. Most importantly, he believed in me and the relevance of this project.

Finally, the financial contributions of two organizations must be acknowledged. This research was supported in part by the National Health Research and Development Program through a National Health Fellowship (1993-1995), and the Canadian Occupational Therapy Foundation through a Royal Canadian Legion Fellowship in Gerontology (1994).

LIST OF TABLES

Table 1: Sensitivity & Specificity of Screening Interview	64
Table 2: Numbers of Women Located versus Not Located	69
Table 3: Reasons for Ineligibility and Refusal	70
Table 4: Chronology of Initial Contacts	84
Table 5: Pattern of Grocery Shopping Trips by Sampling Group	98
Table 6: Pattern of Doctor Visits, by Sampling Group	100

LIST OF FIGURES

Figure 1: Initial Conceptual Model	53
Figure 2: Sampling Matrix	60
Figure 3: Sampling Process Flow Diagram	73
Figure 4: Sketch Map: Community Mobility as a Circle	91
Figure 5: Sketch Map: Community Mobility in terms of a Bus Route	92
Figure 6: Sketch Map: Locations of Importance, Definition of Neighbourhood ...	93
Figure 7: Modified Conceptual Model	213

LIST OF APPENDICES

Appendix 1: Studies That Identify Factors that Influence Community Mobility . .	246
Appendix 2: Development of the Thesis Topic	250
Appendix 3: The Method of Cognitive Mapping	255
Table 3.A: Studies That Have Used Cognitive Mapping	256
Appendix 4: Statement of Introduction Used for the Interview	264
Appendix 5: Study Information Sheet	266
Appendix 6: Consent Form	269
Appendix 7: Screening Interview	271
Appendix 8: Interview Guide	275
Appendix 9: Cognitive Mapping Instructions	283
Appendix 10: Cognitive Mapping Analysis Summary	284
Table 10.A: Details of Cognitive Map Contents, by Individual Participant	288
Appendix 11: The Participants	291
Table 11.A: Summary of Age, Marital Status, Housing & Birthplace, by Sample Categories and Number of Respondents	292
Table 11.B: Summary of Mode of Transportation, by Sample Categories and Number of Respondents	295
Table 11.C: Summary of Health Status, by Sample Category and Number of Respondents	297
Table 11.D: Summary of Education and Work, by Sample Categories and Number of Repondents	299

Table 11.E: Summary of Finances and Income, by Sample Categories and Number of Respondents	302
Appendix 12: Individual Participant Characteristics Charts	305
Table 12.A: Women Who Live in A Resource-Poor Neighbourhood and Have Limited Mobility	305
Table 12.B: Women Who Live in A Resource-Poor Neighbourhood and Have Independent Mobility	306
Table 12.C: Women Who Live in A Resource-Rich Neighbourhood and Have Limited Mobility	307
Table 12.D: Women Who Live in A Resource-Rich Neighbourhood and Have Independent Mobility	308

TABLE OF CONTENTS

Dedication	iv
Abstract	v
Acknowledgements	vii
List of Tables	ix
List of Figures	ix
List of Appendices	x
Chapter 1: Introduction	1
Research Objectives and Questions	3
Rationale for the Focus on Women	3
Summary	7
Chapter 2: Literature Review	10
Nature of Community Mobility: Travel Patterns and Modes	11
Where They Go	12
How They Get There	20
Nature of Community Mobility: Summary	29
Mobility Influencers: Factors Influencing Community Mobility	30
Personal Factors Influencing Community Mobility	31
Structural Factors Influencing Community Mobility	39
Perception of the Environment	44
Mobility Influencers: Summary	47
Summary	48
Chapter 3: Initial Conceptual Framework	51
Chapter 4: Research Design, Methods & Implementation	56
Sampling	57
Sampling Matrix	58
Defining Resource Neighbourhoods	61
Initial Screening Interview	62
Random Sampling	66

Instrumentation and Analysis	74
Interviews	74
Cognitive Maps	80
Ethical Considerations	83
Implementation and Chronology of Fieldwork	83
Summary	85
Chapter 5: The Nature of Women's Community Mobility	87
The Participants	87
Personal Factors	88
Structural Factors	89
Differences Between the Four Sampling Groups	90
Dimensions of Community Mobility	94
Micro-Mobility	95
Instrumental Activities of Daily Living	95
Social, Recreational & Leisure Activities	100
Volunteer Work	101
Social Obligation	101
Macro-Mobility	102
Nature of Participant's Mobility: Summary	104
Chapter 6: Mobility Influencers	105
Personal Factors Influencing Participant's Community Mobility	106
Health	107
Availability of Personal Transportation	108
Income	109
Attitudes and Motivation	110
Knowledge	110
Time	111
Personal Factors: Summary	112
Structural Factors Influencing Participant's Community Mobility	112
Physical Environment Factors	113
Summary of Physical Environment Factors	116
Service System Factors	116
Bus Drivers	117
Bus Steps and Exits	118
Bus Schedules and Scheduling	118
Bus Shelters	121
Handi-Transit	122
Additional Transit Factors	122
Street System	124
Taxis	125

Parking	125
Summary of Service System Factors	126
Summary	126
Chapter 7: Community Mobility Themes and Stories	128
Case 1: Exploring and Understanding Convenience, Risk and Personal Organization - the Stories of Louise	129
Introducing Louise	129
Theme: Convenience	134
Theme: Risk Perception	138
Daytime: Minimizing Unpredictable Risk	139
Evening: Avoiding Unpredictable Risk	142
Continuous and Familiar Risk	145
Theme: Personal Organization	146
Louise's Structural Critique	152
The Meaning of Community Mobility in Louise's Life	155
Case 2: Exploring and Understanding Driving, Burden and Adaptation - the Stories of Brenda	157
Introducing Brenda	158
Theme: The Importance of Being Able to Drive	164
Theme: Adaptation	171
Refocusing on Brenda	179
Case 3: Exploring and Understanding Weather and Social Obligation - The Stories of Jane	182
Introducing Jane	183
Theme: Weather	186
Theme: Social Obligation	191
The Meaning of Community Mobility for Jane	198
Summary: Community Mobility Themes and Stories	200
Chapter 8: Conclusions	203
Major Findings	203
Variations in Personal Factors	204
Adaptation: An Interactional Factor	207
Perception of the Environment	208
Community Context	209
Major Findings: Summary	210
Modified Conceptual Model	212
Abilities and Perceptions	214
Structural Factors	214
Dimensions and Values	215
Strategies	216
General Comments: Four Components	217

Zones of Adaptation and Compensation	218
Modified Model: Summary	220
Study Limitations and Methodological Issues	221
Sampling	221
Attempting to Engage Socio-Political Issues	222
Process and Methods Used to Explore the Nature of Community	
Mobility	223
Variations in Community Context	226
Implications of Findings	227
Directions for Future Research	227
Questions From the Model	227
Questions Relating to Socio-Political Influences	228
Questions Relating to the Very Restricted and Very Mobile	
.....	229
Policy Implications	230
Practice Implications	233
Implications: Summary	235
Conclusion: The Importance of Community Mobility	236
Reference List	238

CHAPTER 1: INTRODUCTION

Over the past number of years there has been increasing concern about the aging of the population and the types of programs and services that will be required to assist older people to remain independently in their homes for as long as possible. One service that has been given attention in this regard, both in practice and in the literature, is transportation. Transportation is defined as a means of conveyance from one place to another, or the public conveyance of people and goods (Merriam-Webster's, 1993). Although in many sectors transportation services are viewed as part of the urban infrastructure, in other sectors, notably health and social services, transportation is seen as integral to facilitating the health and independence of the older population.

Within health and social services, particularly those that are community-based, transportation is assumed to enhance quality of life and one's ability to live independently (Manitoba Council on Aging, 1993). This assumption is echoed in much of the professional practice and research literature on the topic of transportation and elderly people (e.g., Bowe, 1983; Joseph & Fuller, 1991). Unfortunately, it appears that the use of the term *transportation* often leads researchers, policy makers, program developers and service providers to consider only the *means* by which an older person moves from one place to another, rather than the overall process that this movement entails and the interacting factors which may influence the process.

This observation is supported by the community's focus on developing more accessible buses, specialized transportation services or volunteer driver programs (e.g.,

Manitoba Council on Aging, 1993). This work is very important, but has limited efforts to understand how older people experience their movement in the community, and perceive its contribution to their lives. By neglecting this qualitative perspective there has been inadequate exploration of movement through the community as a complex act requiring an integration of personal skills and structural resources (i.e., physical and service system environment), of which transportation is only one resource.

Perhaps more importantly, in order to fully explore the possible connections between the older population's movement in the community, their independence and quality of life, an understanding of their mobility experiences and their perceptions is critical. In order to be able to choose or develop meaningful measures of independence and quality of life for the evaluation of health and social service programs focused on maintaining older people in their homes, transportation must be more broadly conceptualized as community mobility, and the qualitative issues surrounding it must be addressed and described. Furthermore, considering that older, community-dwelling women make up the largest percentage of the seniors population (Novak, 1988), addressing and describing their unique perspective is warranted.

RESEARCH OBJECTIVES AND QUESTIONS

Therefore, the three objectives of this qualitative study are:

- 1) To describe the nature and importance of community mobility in the lives of older women;
- 2) To identify and describe the range of factors which influence the community mobility of older women, and what this influence means in the lives of these women; and
- 3) To investigate whether variations in the following areas influence how community mobility has an impact on the lives of older women:
 - a) personal skills;
 - b) community context; and
 - c) perception of the environment.

And the research questions include:

- 1) How do older women frame their discussions of community mobility, its impacts and meaning in their lives? (e.g. due to personal factors, structural factors, socio-political issues?)
- 2) Do actual variations in older women's personal or structural factors, or perception of the environment, differentiate the way they frame these discussions?
- 3) Do variations in how older women frame their discussions of community mobility result in differences in the impacts and meaning it has in their lives?

RATIONALE FOR THE FOCUS ON WOMEN

As with any research endeavour, this one has experienced a multitude of changes and refinements since its beginning. These refinements have occurred as a result of discussing my ideas with professional colleagues as well as older people; expanding my reading into the disciplines of human geography, architecture and

environmental psychology; and challenging my ways of thinking about the social and structural influences on health through graduate course work¹.

The end result of these changes and refinements was a decision to focus this research project on the community mobility experiences of older, community-dwelling women. Although a multitude of studies have explored issues related to the community mobility of the elderly (see Appendix 1), in the majority of cases men and women have been considered as a single group of older people rather than as distinct groups that have the potential to have different mobility issues. Some people have argued that considering the genders separately for community mobility studies is unnecessary because women are more predominant in this population, and therefore their responses dominate the data anyway (Patterson, 1985; G. Smith, personal communication, May, 1994). From both a methodological perspective as well as a practice perspective, this argument appears inadequate for a number of reasons.

First, although women do predominate within the older age groups², a study's research design, including sampling procedures, data collection methods and the strategies used for statistical analysis, will have a significant impact on the degree to which women's perspectives are reflected in a community mobility study. Although

¹ Courses that have had a particular influence on my thinking include Cultural Epidemiology (Politics and Health) and Measurement of Health and Disability.

² Population statistics show that in 1981 in Canada there were 124 women for every 100 men aged 65-74, and 184 women for every 100 men aged 80 and over. Projections suggest that by the year 2001, women aged 80 and over will outnumber men 218 to 100. (Novak, 1988).

random sampling procedures are most likely to obtain representative numbers of older men and women relative to other sampling strategies, this representativeness is still dependent on the quality of the initial sampling frame, the size of the sample, and the number of non-responses (Hassard, 1991). Even if a sample is obtained that accurately represents the proportions of older men and women, data collection strategies can bias the results in favour of the opinions of one group over the other, or alternatively, completely miss addressing issues that are relevant to one group but not the other (Kirby & McKenna, 1989). Finally, the way that research results are analyzed and presented can bury or omit the unique perspectives of older women in community mobility studies. An example of this potential problem is the way some researchers have presented mobility issues in aggregate form versus stratified on gender even when large numbers of each gender were included in their samples (e.g., Smith, 1991; Walsh, Krauss & Regnier, 1981; Yeatts, Crow & Folts, 1992).

Previous community mobility studies that included both men and women have contributed greatly to the understanding in this area of inquiry, yet each of the methodological issues just raised point to the need to explore the perspectives and experiences of older women independently in order to understand the impact that community mobility has on them. Understanding this impact is important since older women represent a greater proportion of the population over 65 years of age, and therefore policies and programs developed for older people will have a greater impact on women versus men (Novak, 1988). As a result, understanding the impact of community mobility on older, community-dwelling women could have direct and

important relevance to gerontological practice, services and policy development. This relevance becomes even more apparent when one considers the size and situation of this elderly sub-population.

Currently in Canada older women 65+ make up approximately 7% of the overall population. In Winnipeg, the chosen site for this study, 8% of the total population are women over the age of 65 (Statistics Canada, 1991). Approximately 10% of these women are living in institutional settings (Manitoba Health, 1993-94). Therefore, in Winnipeg alone, approximately 45,700 older women are living independently in the community.

In relation to the study of community mobility, it is important to note that less than half of all older Canadian women have a valid driver's licence at the age of 65, and by the time they reach the age of 75, less than one-quarter are still driving (Marshall, McMullin, Ballantyne, Daciuk & Wigdor, 1994). In Manitoba, women over 65 represent 5.4% of all licensed drivers between the ages of 16 and 85+, while women over 75 represent only 1.5% (Manitoba Highways & Transportation, Driver and Vehicle Licensing, 1993). Although both of these proportions has increased dramatically over the last 20 years, it still means that older women are left with less flexible means of transportation compared to all other age groups, excluding children and adolescents who have not reached driving age (Manitoba Highways & Transportation, Driver and Vehicle Licensing, 1993).

Not having access to flexible transportation can place additional demands on the family members of older women, particularly with respect to providing assistance

to buy groceries and complete other instrumental activities of daily living (Grant & Rice, 1993; McGhee, 1983). With families not always being close by, social service programs are left to provide assistance, particularly if the older woman has some type of mobility limitation or disability. Data from the Health and Activity Limitation Survey (Statistics Canada, 1989) show that women (65+) make up over 20% of all non-institutionalized persons who experience a limitation in their ability to perform daily activities. These activities include those which require mobility within the community.

The policy and practice implications of these figures are important, and therefore taking the time to understand older women's community mobility experiences becomes justified on a practical level as well as a methodological one.

SUMMARY

This research project explores the community mobility of older, community-dwelling women, and broadens previous studies of transportation and the elderly population by considering qualitative perspectives and viewing movement within the community as a process rather than simply a means of moving from one place to another.

The rationale for focusing on older women is multi-faceted. First, my professional experience suggests that community mobility is an important issue for older women as many appear to view it as a potential barrier to their continued health and independence (Appendix 2). Second, the reasons for not considering the unique perspectives of older women in previous community mobility studies are inadequate

for the methodological reasons described above. Third, the current emphasis on maintaining older people in their homes as long as possible results in a need to develop effective programs and policies that will meet the needs of the target population. In the situation of older people, the majority of this target population are women, and therefore their community mobility issues have broad implications.

In order to integrate the knowledge from previous studies in the area of community mobility, and to address the research objectives, questions and methodological issues outlined in this introduction, this thesis includes the following chapters and associated content:

- **Chapter 2: Literature Review** - summarizes and integrates previous literature exploring the nature of community mobility, and the personal and structural factors that are believed to influence this mobility;
- **Chapter 3: Initial Conceptual Framework** - presents the framework developed as a result of the literature review in order to guide the study design, implementation and analysis;
- **Chapter 4: Research Design, Methods and Implementation** - describes the overall design of the study including sampling, instrumentation and analysis, ethical considerations, and the implementation and chronology of the fieldwork;
- **Chapter 5: Nature of Women's Community Mobility** - offers a summary of the participant's characteristics as well as an overview of their travel patterns and modes of transportation;
- **Chapter 6: Mobility Influencers** - uses the women's narratives to identify the personal and structural influencers on community mobility, both positive and negative;

- **Chapter 7: Community Mobility Themes and Stories** - presents the primary analysis of the study through three case studies. These cases offer a means to explore the themes that emerged from the analysis of the study data; and
- **Chapter 8: Conclusions** - summarizes the primary findings of this study, its limitations, and the implications for future research, policy and practice.

CHAPTER 2: LITERATURE REVIEW

The literature on the community mobility of the elderly population is diverse and cuts across the fields of gerontology, rehabilitation, disability studies, human geography, urban planning, environmental psychology and sociology. Regardless of the field of origin, the literature in this area of inquiry suggests that community mobility is a key to independent living (Bowe, 1979, 1983; Joseph & Fuller, 1991; Lawton, 1986; Yeates, 1979), and that it has a complex relationship to quality of life (Cutler, 1972, 1975; Joseph & Fuller, 1991; Yeates, 1979). Nevertheless, the majority of studies on the community mobility of older people have focused on the travel patterns³ of the elderly population and the factors influencing their mobility rather than on how people feel about their movement in the community and perceive it as having an impact on their lives.

In order to develop meaningful theories on the connections between community mobility, independent living and quality of life, an understanding of these qualitative aspects of community mobility is relevant and necessary. Simultaneously, a clear and integrated understanding of previous research is also required so that appropriate questions for future research can be formed and gaps in knowledge can be filled.

3

In many studies of the travel patterns of the elderly, the modes of transportation that are used are included along with the description of where the people are travelling. Therefore, for the purpose of this literature review, travel patterns will include modes of transportation.

Within this context, the intent of the literature review is to integrate the findings of previous studies that relate to the objectives and questions of this study. As a result, this review is organized into two primary sections. The first relates to the nature of community mobility, that is, where older women are going and how they are getting to these places. Studies describing the travel patterns of the elderly population and the modes of transportation that they use provide the focus for this section of the review. The second section relates to mobility influencers, that is, those personal and structural factors that have an impact on an older woman's ability to move around in her community. Within this section, previous studies that describe or suggest how variations in personal factors, community context and perception of the environment have an impact on community mobility are included.

NATURE OF COMMUNITY MOBILITY: TRAVEL PATTERNS AND MODES

Studies of the movement of elderly people in the community tend to describe the travel patterns of the elderly as well as their most common modes of transportation. Within these two topics, it is also common to see references to the need for special transportation services for elderly and disabled people, and to the relationship between transportation and service use. Although both of these issues are important, they will not be addressed in this review because they go beyond the needs of this thesis. In order to understand the nature of older women's community mobility, the focus is on studies looking at non-institutionalized older people. Although this study is urban based, studies that have occurred in rural settings and that enhance understanding of community mobility are also included.

Where They Go

In order to understand the process of community mobility in the lives of older women, it is important to know to what places they normally go in the course of their every day lives. Questioning older people about their travel destinations has been a component of numerous transportation studies (Ashford & Holloway, 1972; Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell, Nalepa & Weinstein, 1982). In addition, narrower studies have explored older people's travel patterns to specific destinations, for example, the grocery store (Smith, 1984, 1991) and other shopping trips (Smith, 1984).

Travel pattern data have been collected through mail-out surveys (Grant & Rice, 1993; Paaswell et al., 1982), face-to-face structured interviews (Cutler, 1975; Gant & Smith, 1983; Smith, 1984, 1991) as well as secondary data analysis (Ashford & Holloway, 1982). Other studies describe their method as simply an interview, and therefore it is unclear the degree to which the data collection was structured or more qualitative in nature (Carp, 1971, 1972). Regardless of the method of collection, questions on travel destinations tend to ask the older research participant to comment on whether or not they visit pre-defined locations (Ashford & Holloway, 1982; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982). Only a few studies explore the frequency that an older person goes to these destinations (Gant & Smith, 1983; Smith, 1984, 1991).

Pre-defined locations tend to be very similar across studies. The most common ones include the grocery store (Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983;

Smith, 1984, 1991), church (Carp, 1971; Cutler, 1975; Grant & Rice, 1983), friends' homes (Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982), other shopping sites (Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984), the doctor's office (Carp, 1972; Cutler, 1975; Gant & Smith, 1983; Paaswell et al., 1982), and clubs, entertainment or leisure sites (Carp, 1972; Cutler, 1975; Gant & Smith, 1983). The underlying assumptions that appear to be inherent in this consistency are threefold. The first assumption is that these locations are the most important destinations for older people. The second is that these destinations are frequented the most by this population. The third assumption is that the frequency with which an older person goes to a destination defines, to some degree, the importance of that destination. Strikingly absent in this list of destinations is the homes of family members. Only Grant and Rice (1983) included this destination in their study.

Questions about going to these destinations are typically linked with questions about the mode of transportation that the older person uses to get to the site. As a result, the reader is unable to get a picture of how often an older person goes to these locations in general and which destinations among them are the most frequented. As well, the reader does not know if the older person is going regularly to other destinations not included in the researcher's questioning, for example, the homes of family members. Regardless of these limitations, an important finding of Cutler (1975) as well as Gant and Smith (1983) is that older people who are unable to drive

tend to go to fewer destinations compared to those older people who are able to drive themselves.

As previously noted, only three studies report findings on the frequency that older people go to these various destinations. Since frequency of travel contributes to understanding the nature of older people's community mobility, each of these studies will be briefly summarized here.

In a study completed in rural Great Britain, Gant & Smith (1983) reported on the overall frequency that the older people in their study went to a variety of pre-defined community destinations. The authors considered disparities in personal access to transportation in their analysis (i.e., the ability to drive). In looking at the trip patterns of 297 households (498 elderly people) over a one month period, the authors analysed how often their respondents went to the grocers, post office, the pharmacist and the hospital.

Analysis showed that a greater proportion of independent households made trips outside their parish for groceries and that dependent households needed help to get to the post office to collect their pension cheques. For the purpose of the study, independent households were defined as those households that contained a retired person in good health. This group made up 72% of the sample. Dependent households (28%) had at least one member with a serious disability who needed regular help from other people to manage activities of daily living. The people that fell into this latter category experienced restricted movement outside of their homes,

and one third of them were unable to use a bus or visit a local shop even with assistance.

Through the tables and charts provided in Gant and Smith's article, the reader is able to gain some appreciation for how much the older people in this rural study are getting out into their community. In the one month time period, 63% of the sample had been to the grocers, 59% had gone to the post office, 42% to the pharmacist, 24% to see the doctor, and only 6% had gone to the hospital.

Going to the grocery store appears to be an important trip based on the findings of Gant and Smith (1983), as well as the findings of Smith (1984, 1991). Smith's two studies were conducted in Winnipeg. Although both studies considered grocery shopping trips made by the ambulatory elderly population, the 1984 study also inquired about shopping trips for footwear, appliances, furniture and clothing.

In his 1984 study, Smith found that over 80% of the elderly people that were interviewed (N=96, 83% women) went grocery shopping at least once every two weeks and tended to use only one or two grocery stores. He also found that nearly 50% of all respondents travelled less than 0.5 of a kilometer to the store. Sixty-six percent of the grocery store patronage within his sample was concentrated in the central business district (i.e., downtown). This finding is similar to that of Ashford and Holloway (1982). These authors found that 25% of all shopping trips made by the elderly people included in their sample were completed in a central business district.

What is interesting about the similarity of these findings is that Ashford and Holloway's study included elderly people living in suburban areas as well as

downtown areas. Smith's (1984) study only included elderly people living in a downtown seniors' apartment building. Ashford and Holloway suggest that the orientation of the elderly population to central business districts reflects their higher concentration in the older residential areas which tend to be closer to the central business districts.

An additional finding of Smith's (1984) study was that 21% of the older people interviewed combined their grocery shopping activities with visits to social destinations. Furthermore, 33% of all grocery shopping trips were combined with some other non-shopping task. In terms of shopping for furniture, appliances, footwear and clothing, Smith (1984) found that his respondents travelled further afield, yet the mean distance for all four categories of shopping trips was less than two kilometers. Frequencies for these four types of trips are not reported.

In his 1991 study, Smith provides more detailed findings regarding the frequency of older people's grocery shopping activities. In this study, three groups of elderly Winnipeggers are compared - one from the central area of the city (n=82), one from an inner suburb (n=95) and one from an outer suburb (n=95). He found that all members of the sample had been grocery shopping at least once in the two weeks prior to their interview, and over two-thirds of them had gone at least twice. Sixty-one percent of the sample travelled more than a half mile to purchase their groceries. Fifty-eight percent of the sample combined their grocery shopping with some other activity, with 21% of these combined trips being social in nature. A major finding of Smith's (1991) study was that there are no differences in the distances travelled to

purchase groceries for elderly people living in downtown versus suburban locations.

As a result, Smith concludes that all groups tend to remain in their own neighbourhoods to grocery shop.

With the exception of Ashford and Holloway (1982), other studies (Carp, 1971, 1972; Cutler, 1975; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984, 1991) discuss travel patterns in relation to the mode of transportation used to reach particular destinations. Travel modes will be discussed in the next sub-section of this review. Since Ashford and Holloway's (1982) study considered only travel patterns and not modes, it will be briefly commented upon here since the findings do contribute to an understanding of the nature of older people's community mobility.

Ashford and Holloway focused on the relationship between trip-making and age⁴ using secondary data from six urban centres in the United States which ranged in size from 64,000 to 750,000. The analysis considered the percentage of trips that were oriented to the central business district, the percentage of trips made within the zone of residence, the percentage of trips made by public transit, the total trips per day and the average trip length. The comments of these authors regarding travel to central business zones has already been discussed.

4

The age cohorts considered included: 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65+.

In terms of travel within their zone of residence⁵, Ashford & Holloway (1972) found that as age increased the percentage of trips made intrazonally decreased. This finding suggests that elderly people do not restrict their travel within the immediate area in which they live as is often believed. Furthermore, "for the non-work trip purposes which account for most of his travel, the elderly person can be expected to be more wide-ranging in travel than his younger counterpart." (Ashford & Holloway, 1972, p.45). Since this study considered multiple destinations, it is unclear how this finding relates to Smith's (1991) finding that older people appear to remain in their own neighbourhoods to grocery shop.

For the total trips per day and the average length of trip, Ashford & Holloway (1972) calculated rates only for those individuals who were actually making trips. They do not identify how many of the elderly population were excluded from the analysis based on this decision. Nevertheless, their findings indicated that on average, older people were making 2.27 daily trips, and that this was not significantly different from the 35-44 year old cohort who were making 2.41 trips. They also found that the larger the urban area, the lower number of daily trips the elderly population made. Preliminary analysis of a recent Winnipeg study has found similar results in terms of the number of daily trips made by the urban elderly population (G. Smith, personal communication, May 8, 1995).

5

Defined as trips which begin and end within the zone of the tripmaker's residence. They do not define the size of a zone.

After the age of 64, Ashford and Hollway (1972) found a 40% decrease in the number of work related trips that were made on a daily basis, but that in turn, there was an equivalent percentage increase in trips made for shopping and miscellaneous purposes. Average trip lengths were found to be relatively constant for people over the age of 25 in this study, but that for trips taking longer than 30 minutes, trip-making rates for the over 65 cohort dropped off significantly.

Based on their analysis, Ashford and Holloway (1972) conclude that the elderly population has a high demand for mobility and that trip rates and lengths were not that different between younger and older adults. They also concluded that elderly people tended to make more shopping and miscellaneous trips, and were less likely to travel during rush hour periods.

In summary, the studies cited in this sub-section of the review suggest that non-institutionalized older people are going out into their communities regularly to conduct a wide range of activities. Although the researchers cited here had pre-defined their destinations of interest, those studies that describe the frequency of outings (Gant & Smith, 1983; Smith, 1984, 1991) do assist the reader to understand the potential scope of an older person's community mobility. What the reader is unable to learn from these studies is whether there are differences between the community mobility of older men versus older women since no gender analysis is offered in any of the studies cited.

Although none of the authors cited here appear to have investigated which trips their older respondents feel are the most important, the destinations that researchers

feel are important is evidenced by the consistencies in their pre-defined destinations. Based on these destinations, it would appear that researchers envision community mobility as having two dimensions, that is, as serving two broad purposes or functions. The first dimension appears to be related to self-care. These trips include those such as grocery shopping and banking. These trips allow the older person to care for themselves as well as maintain their homes. The second dimension appears to be related to leisure participation. These trips include those such as visiting friends and going to participate in club or entertainment activities. In considering the leisure dimension of community mobility, what is absent in the literature cited here is references to holidays or trips out of the older person's community. In this regard, it would appear that the studies cited here have focused on micro-mobility, that is, mobility that is confined to a relatively small geographical area. Although there is a body of literature that addresses the macro-mobility of older people, that is, extended trips and holidays (see for example, CARNET⁶, 1994), the interest of this study is in the every day travel of older women. Therefore, exploration of macro-mobility studies was not pursued.

How They Get There:

To understand the potential impacts that community mobility might have on older women, it is also important to understand how they are getting to the places that

6

CARNET is an acronym for the Canadian Aging Research Network, a federally funded network of Centres of Excellence.

they want to go. As was noted in the previous sub-section of this review, many authors (Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984, 1991) have investigated mode of transportation relative to specific destinations. Modes that are typically discussed include walking (Carp, 1971, 1972; Cutler, 1975; Grant & Rice, 1983; Smith, 1984, 1991), taking the bus (Ashford & Holloway, 1972; Paaswell et al., 1982; Smith, 1984, 1991; Smith & Hiltner, 1988), driving oneself (Carp, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984, 1991) or going as a car passenger with family members or friends that drive (Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984, 1991). Use of para-transit services is sometimes mentioned (Paaswell et al., 1982; Smith & Hiltner, 1988), as is the use of a taxi (Carp, 1972; Cutler, 1975).

To collect data on the mode of transportation used, authors have used the research methods as noted in the previous sub-section. Although a recent Winnipeg study on the travel patterns of older people used daily travel diaries to collect data on the mode of transportation (G. Smith, personal communication, April 1994), this method does not appear to be commonly used in studies exploring the community mobility of older people.

In comparing the studies exploring transportation modes, the proportion of drivers reported is relatively consistent as are the characteristics that distinguish drivers from non-drivers. The proportions of drivers reported range from 34% (Paaswell et al., 1982) to 64% (Grant & Rice, 1983) among people 65+ and include

38% (Gant & Smith, 1983), 45% (Smith & Hiltner, 1988), 53% (Cutler, 1975), and 60%⁷ (Carp, 1972). In addition, all of these authors note that the women in their samples were less likely to drive than the men, as were those respondents 75+ compared to those respondents who are less than 75 years old. As an illustration, Gant and Smith (1983) found that 38% of their entire sample held a current driver's licence, but that when they considered men and women separately only 26% of the women drove versus 56% of the men. In addition, only 25% of all people 75+ were able to drive. "Consequently the journeys made by large numbers of females, the retired-disabled and those aged over 75 are severely constrained." (Gant & Smith, 1988, p.175).

Other features that characterize non-drivers include mobility problems (Cutler, 1972; Cutler & Coward, 1992; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982), declines in visual acuity (Paaswell et al., 1982), living in a central urban area (Carp, 1972; Cutler & Coward, 1992; Smith, 1984, 1991), being widowed (Grant & Rice, 1983; McGhee, 1983) and having a lower economic status (Carp, 1972; Cutler, 1972; Grant & Rice, 1983). These individuals tend to be more dependent on walking, taking the bus or going with friends or family members as alternative modes of transportation (Carp, 1971, 1972; Cutler, 1972; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Smith, 1984, 1991). A number of authors point out that these alternative modes tend to be less flexible and therefore the older people who are

⁷ The 60% proportion was based on the military sub-sample of this study only.

dependent upon them are more restricted in their community mobility (Carp, 1971; Cutler, 1975; Cutler & Coward, 1992).

The lack of flexibility of walking as a mode of transportation is supported by Carp's (1971) study. In this study of 709 older people from San Antonio, Texas, Carp found that walking was considered to be an inadequate a means of transportation for many of the research participants. Participants (60% women) were asked how often they walked to get somewhere, where they went on foot, and what were the advantages and disadvantages of walking.

It was found that 44% of the sample walked as a means of transportation several times a week, and one in five of the participants walked somewhere everyday. However, 41% of the sample walked somewhere less than once a month, many of them identifying that they never used walking as a means of transportation. Using multiple regression, Carp (1971) discovered that the location of the older person's home was the greatest predictor of walking as a means of transportation. Older people living in central urban zones were most likely to walk, and as one moved further into the suburbs this likelihood decreased. In addition, white people, car owners, women, people living with their spouses, and those who evaluated their health as poor were less likely to use walking as a means of transportation.

For the most part, Carp's (1971) findings match the descriptions of non-drivers that were previously identified. The major exception relates to health status. Carp found that older people who evaluated their health as poor were less likely to walk. Yet, older people who have health problems are also less likely to drive (Cutler, 1972;

Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982; Persson, 1993). As a result, these older people are even more restricted in their transportation options and are often the target group for special transportation systems and volunteer driver programs (Gurian, 1992; Iutovich & Iutovich, 1988; Joseph & Fuller, 1991).

When asked to evaluate walking as a means of transportation, Carp (1971) found that her research participants did not find it very satisfactory. One of the most interesting findings of the study was that the more dependent an older person was on walking, the less favourably it was viewed as a means of transportation. Over half of all respondents said that walking met their needs very poorly, primarily because most places they wanted to go were beyond walking distance (Carp, 1971). The most common destinations for those people who were walking, either regularly or occasionally include the grocery store (Carp, 1971; Grant & Rice, 1983; Smith, 1984, 1991), a friend's home (Carp, 1971; Grant & Rice, 1983), church (Carp, 1971, Grant & Rice, 1983) and other shopping sites (Carp, 1971; Grant & Rice, 1983; Smith, 1984). Most walking trips take 15 minutes or less each way (Carp, 1971).

Although walking places limits on the distance that can be travelled, the older people in Carp's (1971) study also identified problems with the slowness of walking and the difficulties it causes in carrying bundles home. Nevertheless, Smith (1984) found that 30% of his respondents living in a downtown apartment building always walked to purchase their groceries while only 14% of them never did. In 1991, Smith compared grocery shopping patterns between older people living in a central area, an inner suburb and an outer suburb. Here he found that only 13% of the entire sample

always walked for groceries. Yet, a full 25% of those participants living in an inner suburb always walked compared to only 4% living in an outer suburb. These findings may be a reflection of fewer drivers in central urban areas as previously noted.

Fear of falling, of becoming lost, of being hit by a car or of being attacked have also been identified as disadvantages of walking (Carp, 1971; Paaswell et al., 1982). Women were found to be more fearful of falling than men, and to complain more about sore feet as a disadvantage of walking (Carp, 1971). The primary advantages of walking included health benefits, low cost, convenience, and the opportunity it provides to be around other people (Carp, 1971; Paaswell et al., 1982).

Although walking is commonly used as a mode of transportation by older people, particularly when distances are short and health is good, public transit is also used frequently as a means of moving around within an urban setting. The proportion of older people who report using public transit varies depending on whether the researcher was exploring use in general or to a specific destinations.

Based on secondary data analysis, Ashford and Holloway (1972) report that among the six urban centres included in their study, the elderly population was using the transit for as many as 22% of all shopping trips, as compared to 3% for the 25-34 age group. Paaswell et al. (1982) report that for all types of trips, 30% of their suburban sample (N=147) were regular transit users. The values reported by Ashford and Holloway and by Paaswell et al. are comparable to the 23% (N=150) reported by Smith and Hiltner (1988). To go grocery shopping, Smith found that 9% of his 1984 sample always used the bus. In comparison, his 1991 study found that 4% of the

central area respondents used the bus for grocery shopping. This figure compares to 4% of the inner suburb respondents and 3% of the outer suburb respondents who always used the bus to go grocery shopping. The highest proportion of bus users that is reported among all of the studies reviewed is 75% (Patterson, 1985). This figure needs to be interpreted cautiously since the researcher was specifically targeting his survey to older bus users.

Of particular interest to the current study are the reported differences between older men and older women in terms of their bus ridership. In a study of 150 non-institutionalized elderly people in Toledo, Ohio, Smith and Hiltner (1988) sought to identify the socio-economic characteristics that differentiated riders and non-riders of public and agency transportation. The results of the survey showed that the utilization rate of public transportation was 23% among the respondents, and 4% of them used agency transport (a specialized paratransit). When Smith and Hiltner (1988) took a closer look at who was using public or agency transport, they found that over 89% of the women were using these services as opposed to only 17% of the men. In addition, they found that over 40% of public transit users in the study were over 85.

These findings are consistent with those of Marshall et al. (1994) who explored contributors to independence over the adult life course. The authors found that reliance on public transit increases with age, and that older women are more likely to use transit than older men. By age 75+, "39% of men and 54% of women say they have used public transportation in the last twelve months." (Marshall et al., 1994, p.28).

For those older people who live in communities that do not have access to public transit, walking or going with friends or family are the alternatives to driving oneself. Older people's satisfaction with the latter mode of transportation was not discussed specifically in any of the articles cited thus far. Although data from Smith (1984, 1991), Cutler (1975) and Paaswell et al. (1982) provide some insight into travelling as a passenger, overall this area appears to be a major gap in the literature.

Smith's (1984, 1991) studies report that many older people go with a family member or friend in order to complete their grocery shopping. The 1984 study found that 8% of older people living in a downtown apartment building were always going as a passenger while 50% more were going as a passenger occasionally. These figures are a sharp contrast to Smith's 1991 findings in which less than 1% of central area residents were always going as a passenger to purchase their groceries, and 39% were going as a passenger occasionally. Values for the inner suburb are comparable to the 1984 results with 8% of these elderly respondents always going as a passenger. The reason for the discrepancies in central area findings are unknown, particularly in light of the fact that both of Smith's studies were conducted in Winnipeg.

Two other studies offer a limited understanding of older people's travel as a passenger (Cutler, 1975; Paaswell et al., 1982). Cutler's article focuses on the travel patterns of 106 older people (74 women) relative to the mode of transportation being

used to get to seven specific destinations⁸. Respondents were asked to identify how they got to the pre-defined destinations. The results indicated that those respondents who did not drive were more likely to walk to all of the seven destinations ($p < .001$), more likely to travel with friends or family ($p < .001$), and more likely to use a taxi ($p < .001$) than those who drove. Of particular interest was that "the major means of conveyance among the respondents in this sample who are without personal transportation is as a passenger followed by walking." (Cutler, 1975, p.157).

Paaswell et al. (1982) received 147 responses from a mail-out survey conducted in a suburban area with poor public transit service. Although the study appears to have limited generalizability due to its high non-response rate (92%), one figure stands out in a discussion of going with friends or family as a means of transportation. Upon analyzing their available data, Paaswell et al. (1982) found that 60% of their respondents who did not drive said that they would prefer to take public transportation rather than a ride with friends or family. Although this finding is not discussed in the article, it raises a question about how older people perceive using this mode of transportation and its overall acceptability.

In summary, older people appear to be using a variety of transportation modes including driving, taking the bus, walking and going with friends or family. The proportions of older people using each of these modes appears to be fairly consistent

8

The seven destinations included: doctor's office, grocery store, shopping, religious service, friends' homes, movies/entertainment and clubs.

across studies, yet there is little information regarding the acceptability of each mode in terms of meeting older people's community mobility needs. Based on the literature cited, it does appear that women 75+ may be experiencing particular difficulties with their community mobility since they are less likely to be driving. As a result, they are more dependent on walking, taking the bus or going with friends or family members. Walking limits the distance that can be travelled, and going by bus means that limitations are imposed by schedules and routing. Furthermore, based on the findings of Cutler (1975) and Paaswell et al. (1982), it appears that going with friends and family members may not be the mode of choice for some older people.

NATURE OF COMMUNITY MOBILITY: SUMMARY

The studies of the travel patterns of the elderly population seem to suggest that being able to drive offers older people the greatest flexibility in terms of community mobility, and that women are less likely than men to hold a current driver's licence and have access to a car. Although older people living in rural areas and small towns appear to have greater access to cars, generally speaking the range appears to be between 40 to 60% overall. Walking and public transportation are also important modes of transportation, but which one is used depends on availability of public transportation and distance to be travelled. It would appear that urban elderly, particularly those living in the suburbs, depend on walking to a lesser extent than their rural counterparts. This observation though may simply be an artifact of public transport availability.

In terms of where older people are travelling to with the greatest frequency, this cannot be determined through the studies cited. In addition, there is no way of knowing if important and frequent trips are missed in the data collection process because of the predominant use of pre-defined destinations. Furthermore, with only Ashford & Holloway (1972) commenting on the average total daily trips there is no way of knowing how frequently overall older people are getting out into their communities.

MOBILITY INFLUENCERS: FACTORS INFLUENCING COMMUNITY MOBILITY

Results of studies exploring the travel patterns of the elderly population suggest that a number of factors interact to influence an older person's community mobility. The factors that are identified in the literature are diverse and include personal health, perception of the environment, fear of crime, flexibility of transportation mode, bus design, housing location (including the proximity of goods and services), as well as demographic variables such as gender, income, education, religion and marital status. Ultimately the factors that are identified fall into three broad categories - personal factors, structural factors (including the physical and service system environments) and perception of the environment.

Although authors fail to agree on the relative importance of each of the factors, or which of the three categories has the greatest impact on an older person's community mobility, integrating the knowledge from previous studies offers a broader understanding of the community mobility of older people in general. It is important to understand what factors may be influencing community mobility in order to offer

reasonable explanations for the individual variations in the community mobility of older individuals.

With the exception of articles discussing the perception of the environment, the majority of authors explore multiple factors within a given study. Appendix 1 provides a summary of the factors identified, by citation, to which the reader can refer throughout this part of the literature review. In addition, this appendix provides details on the studies cited in terms of the sample, method and primary study objective.

This discussion on factors influencing community mobility is divided into three broad parts. They include a sub-section on personal factors and one on structural factors. The final sub-section deals with the perception of the environment.

Personal Factors Influencing Community Mobility:

Moving around in one's community requires a number of personal resources and skills. The most common ones that are discussed include age, health, gender, income, education, living situation (i.e., alone or with others), fear and ability to drive (Appendix 1). Although the individual influence of each of these factors varies across studies, it is clear that authors see specific interactions among these factors as being particularly important. The most commonly identified interaction is between age, gender, living situation and ability to drive (Doyle, 1988; Iutovich & Iutovich, 1988; McGhee, 1983; Smith & Hiltner, 1988). Specifically, these authors note that women 75+ who live alone and are unable to drive are the most transportation disadvantaged. The reasons that are suggested for this situation are rarely discussed in detail, but

McGhee (1983) observes that older women are more likely to have lost a spouse, and this spouse has often been the principle driver of the household.

The work of other researchers support the importance of this four part interaction. Gant and Smith (1983) and Grant and Rice (1983) have both found that older women have more difficulties moving around in their communities because they are less likely to be able to drive than their male counterparts. In addition, Patterson (1985) has also found that women are more likely to use public transportation than men (a less flexible mode of transportation) and that they are more likely to have fears related to moving around in their community. Therefore, Patterson identifies gender as a factor which influences community mobility.

Findings of other studies (Cutler & Coward, 1992; Golant, 1984a, 1984b) have not clearly supported or disputed this aforementioned interaction but rather have suggested that the situation is much more complex. Using secondary data, Cutler and Coward examined correlates of the availability of personal transportation (i.e., a car or other vehicle) in households of elders. Specific attention was paid to age, gender and residence differences (i.e., central urban areas, urban fringe, outside of urban area) among 239,329 elders living in 184,024 households. The initial results of the analysis "show a clear pattern of decreasing household access to personal transportation with advancing age" (Cutler & Coward, 1992, p.78) and clear gender differences with women having less access to personal transportation than men. Yet, further analysis showed that for those individuals 90+ there was a reversal in this trend:

while access to personal transportation declined with increasing age among the oldest-old men (from 66.5% at ages 85-89 to 60.5% at ages 90 and over), it increased between these ages for women (from 48.1% to 52.8%). These results likely reflect the greater tendency for these very old women to be living in multi-generational households as the parent or parent-in-law of the householder (Cutler & Coward, 1992, p.79).

In terms of understanding the community mobility of older people, the limitation of this study is that availability "is not synonymous with use of or even ability to use a vehicle...[therefore the data] may overstate the extent to which elders can avail themselves of personal transportation vehicles." (Cutler & Coward, 1992, p.78).

The findings of Golant (1984a, 1984b) also suggest that there is more to the interaction between age, gender, living situation and ability to drive. In his study of 400 older people 60+ (proportion of women not identified), Golant (1984b) found that gender had neither statistically significant correlations with or direct effects on how large an area an older person used in their every day travels. In addition, he found that although older women tended to go out at night less often than men, overall, gender did not have an independent statistical effect on the frequency of night-time activity (1984a). In both articles, what Golant found to be more important than individual variation was the availability of transportation. This factor independently influenced how large an area an older person used in their every day life, as well as the frequency of their night-time activities.

Besides age, gender, living situation and ability to drive, another frequently identified personal factor that influences community mobility is health. In the literature on community mobility, health is primarily defined through physical skills

and abilities (Appendix 1). In order to move freely in one's community, one must be able to walk, or have some other means of forward propulsion, be able to open and move through doors, and climb stairs and/or ramps. If a vehicle is being used for transportation, one must be able to enter and exit it. All of these physical abilities are required for independent community mobility, and can be challenged by pace requirements (e.g., crossing a road with traffic lights), bad weather, and health variability (e.g., arthritis pain). These challenges aside, authors suggest that normal changes in physical abilities due to aging have an impact on community mobility (Jackson, 1989; McLaren & Fleming, 1985). As a result, health, aging and physical abilities represent a second important interaction influencing community mobility.

In her textbook on geriatric assessment for physical therapists, Jackson (1989) cites a study in which subjects were asked to walk thirty metres unassisted. Older people were found, on average, to walk slower than what is considered to be a safe speed for crossing at traffic signals. In addition, older women were found to walk slower than older men suggesting that crossing a street within the time provided by a traffic light is more difficult for older women. Unfortunately Jackson (1989) does not identify further details of the study and the original reference could not be accessed.

In addition to walking, being able to climb up and down steps is very important for community mobility, particularly if one is required to use the bus as a means of transportation. In a step test:

all 70 year old subjects could master steps of 10, 20, and 30 cm without handrails. All 70 year old men and women tested could climb up and down a 40 cm step with a handrail. For a 40 cm step with no handrail, 4 of the men

and 23 of the women could not step up and 5 men and 10 women could not step down. At a 50 cm step nearly all of the men and women could manage, some with difficulty, with a rail, but without a handrail, 10 men and 71 women could not get up and 9 men and 34 women could not get down. Women appeared to have more difficulty than men with the step test. (Jackson, 1989, p.245)

The importance of physical skills and health for community mobility has also been identified in the research of a number of other authors (Appendix 1), and it is common to see references to walking and climbing bus steps within these studies. For example, using calculated estimates, McLaren and Fleming (1985) state that approximately 3% of the Canadian population has some physical condition that makes travel difficult without some type of aid or assistance. Within this group, 71% were having difficulties because of a problem walking, and because of this, 44% of them were prevented from using the bus due to the challenges of boarding and disembarking. These challenges included the height of the bus step and the need to stand and wait for the bus to arrive. Although these two authors do not provide any age or gender breakdowns for their data, analysis of regional data suggested a strong age effect. In other words, regions that had higher proportions of older people responding to the survey showed higher levels of disability, mobility problems and difficulties using the bus. As a result, they state: "The incidence of transportation disabilities increases with age." (McLaren & Fleming, 1985, p.24).

Whereas Jackson (1989) and McLaren and Fleming (1985) discuss physical abilities in relation to using the bus, Eisenhandler (1990) notes the effect of physical changes on an older person's ability to drive. In a primarily theoretical article,

Eisenhandler (1990) discusses the role that being able to drive has on an older person's sense of identity, and argues that a driver's licence is a disidentifier of old age. Of the respondents, all of the men were current drivers while only 19 of the women were. All of the drivers acknowledged:

that physical deficits impeded their skill behind the wheel, and they impose their own limits on driving. They became more careful about driving in what they defined as adverse conditions - bad weather, heavy traffic, nighttime and long trips. (Eisenhandler, 1989, p.112)

In studies where the participant has been asked to evaluate their own health status (Cutler, 1972; Grant & Rice, 1983; Golant, 1984a, 1984b; McGhee, 1983), those participants who have evaluated their health as fair or poor have consistently been found to have more problems moving around in their communities. What has not been explored thus far in the literature is whether poorer health causes problems with community mobility, or if problems with community mobility causes isolation, and thereby deteriorating health. Nevertheless, authors are consistent in their findings regarding health and community mobility, and it is apparent that it is an important personal factor which influences one's ability to move freely around in their community.

Three other personal factors that are discussed in the literature include income, education and fear (Appendix 1). Of these three, income is the most frequently identified and tends to be linked with the expenses of being a driver. These expenses include the vehicle itself, maintenance and insurance. In terms of identifying someone who has greater problems with community mobility though, the importance of income

levels appears controversial. McGhee (1983) found that individuals who expressed a need for additional transportation expressed less satisfaction with their income adequacy than those who did not need transportation. Yet, when using stepwise regression to distinguish between these two groups, the variable of income was eliminated as it did not contribute additional knowledge to the equation.

Identical results were found by McGhee when looking at the differences between transportation dependents (i.e., those people dependent on friends and family) compared to those who are transportation independent (i.e., able to drive). Transportation dependents were less satisfied with their income adequacy, yet income was insignificant in terms of distinguishing this group from the independent group.

Iutovich and Iutovich (1988) had similar findings to McGhee (1983). Iutovich and Iutovich found that older people who expressed a need for transportation services had lower incomes than those who did not. Yet, continuing analysis showed that income was an insignificant variable when trying to distinguish between these two groups. These authors had the same findings when looking at people who used the public transportation system and those who did not. People who used the public transit had lower incomes, but income was insignificant in terms of distinguishing users and non-users.

Unlike the majority of other personal factors that have been identified thus far, education has been identified as an important mobility influencer by only two previous researchers (Golant 1984a; McGhee, 1983). Golant (1984a) found that people with

higher education were more likely to go out at night and to travel further afield to participate in leisure and entertainment activities.

McGhee (1983) found that the people who were transportation dependent in her sample had a lower mean number of years of education compared to those who were independent. Furthermore, education was a significant variable in the equation to predict differences between these two groups. In addition, people who expressed a need for transportation had less education than those who did not. Again, education was an important predictor in distinguishing between these two groups. In stark contrast to McGhee's findings, Iutcovich and Iutcovich (1988) found no differences between people who expressed a need for transportation and those that did not, nor between users and non-users of public transportation in terms of education.

The final personal factor that is identified in the literature as influencing community mobility is fear (Appendix 1). In all cases where fear is identified as important, studies were specifically designed to inquire about this factor (Golant, 1984a; Paaswell et al., 1982; Patterson, 1985). The fears that are identified in these studies are wide ranging and include fear of being mugged or attacked, of falling, and of becoming lost.

Golant (1984a) found that older people who are fearful are less likely to go out at night to participate in various activities unless they had a ride with a friend or family member. This finding is consistent with that of Patterson (1985) who found that fear was the highest in the evening among those elderly people who responded to his survey. Patterson (1985) also describes how his respondents were fearful walking to

bus stops, standing and waiting for the bus, and when riding the bus. "Thus, it is important to note that no aspect of the bus trip, not going to and from the bus, not waiting, not even while actually riding the bus, is free from fear for the elderly transit user." (Patterson, 1985, p.283).

In summary, the citations listed in Appendix 1 identify a wide range of personal factors that are felt to influence the community mobility of older people. Although age, gender, living situation and ability to drive appear to be the most important factors, health, income, education and fear also appear to contribute to or detract from an older person's ability to move freely through his or her community. Interestingly, only one group of authors (Yeatts, Crow & Folts, 1992) specifically identifies that an older person's intent or motivation to move around in their community is a personal factor that influences community mobility. No other author or group of authors specifically addresses this issue.

In some of the studies cited (Gant & Smith, 1983; Iutcovich & Iutcovich, 1988; McGhee, 1983), authors have attempted to capture the interactions between the personal factors by dichotomizing study participants into groups who have independent mobility (i.e., are healthy and can drive) and dependent mobility (i.e., are unable to get around on their own).

Structural Factors Influencing Community Mobility:

In addition to identifying personal factors that influence the community mobility of older people, many authors also identify structural factors (Appendix 1). They include both physical environment factors as well as service system factors.

Examples of physical environment factors include housing location, time of day, weather and traffic. Service system factors include bus scheduling, routing, seating, shelters and design. By far, the most frequently identified structural factor in the literature is housing location (Appendix 1). Housing location refers to where an older person lives in relation to necessary goods and services such as grocery stores, pharmacies, and bus stops, as well as necessary social supports such as the homes of friends and family members.

In all of the studies which identify housing location as an important mobility influencer (Appendix 1), the authors suggest that the further a resource (e.g., grocery store, pharmacy, etc.) is away from an older person's home, the greater is the need for a more flexible mode of transportation in order to minimize community mobility problems. In other words, housing location is intimately tied to distance, and the interaction of these two factors influences an older person's community mobility particularly with respect to the completion of instrumental activities of daily living.

Unfortunately within these articles, the issues of housing location and distance are not dealt with independently. As a result, the reader is unable to determine if both housing location and distance are influencing community mobility, or only the interaction between these two factors, or alternatively, if these two factors are simply different labels for the same phenomenon. Grant and Rice (1983) found that the further a person was from their destinations, the more difficulties they experienced, regardless if they lived on a farm or in a small community. As a result, the reader is lead to believe that distance is the salient factor. Cutler's (1972, 1975) work is similar

in this respect. Although his studies primarily focused on the impact of transportation on life satisfaction, the way in which Cutler stratified his 1972 analysis showed that older people who lived more than a half mile from a commercial district had greater transportation problems, and ultimately, lower satisfaction.

Regardless of how one labels this factor (i.e., housing location, distance), what goods and services that need to be close to minimize an older person's community mobility difficulties are vague and inconsistent. Gant and Smith (1988) imply that a resource-rich neighbourhood⁹ would minimally include access to public transportation, a grocery store, a pharmacy, a post office and a medical clinic. By virtue of their interview questions, and their destinations of interest, Cutler (1972, 1975), Grant and Rice (1983), and Paaswell et al. (1982) appear to agree with the importance of these sites for older people.

A study completed in Winnipeg suggests that the proximity of a food store, a bus stop, a place to pay bills, a pharmacy and to friends and relatives are the most important community resources for older women (CARNET, 1993). Although this study was not looking at the relationship between the proximity of these resources and community mobility, the findings are relevant to understanding the apparent influence of housing location on community mobility.

9

i.e., a neighbourhood with all of the necessary goods and services in close proximity. The term "resource-rich" is not used in the literature but rather is one that I have chosen to use to capture both housing location and distance as factors that influence community mobility.

Although which resources, that is, goods and services, need to be close by are not clearly identified in the literature, what constitutes a reasonable distance is. Cutler (1972) speaks of a half mile radius around an individual's home as being their neighbourhood. This distance is generally recognized as constituting an easy walking distance for most people (Jackson, 1989; Smith, 1984, 1991).

Time of day, weather and traffic are the other three physical environment variables that are identified in the literature (Appendix 1) and that are not specifically related to the use of public transportation. The importance of time of day has already been alluded to in the sub-section on personal factors. Older people have been found to travel less at night because of fear (Golant, 1984a; Patterson, 1985), but in addition, Eisenhandler (1990) and Paaswell et al. (1982) found that elderly drivers prefer to drive during the daylight primarily because of deteriorating night vision. As a result, elderly drivers and elderly bus users are influenced by the time of day in terms of their community mobility and are more restricted in the evening hours.

Weather has also been found to restrict older people's community mobility (Eisenhandler, 1990; Golant, 1984a; Paaswell et al., 1982). During bad weather, older people are less likely to go out, regardless of their mode of transportation. Eisenhandler (1990) also found that traffic volume restricts the community mobility of older drivers. Specifically, older drivers are less likely to drive during peak traffic hours, that is, during morning and afternoon rush hours.

The final group of structural factors that influence community mobility can be broadly labelled service system factors. These factors include bus scheduling, routing,

seating, shelters and overall bus design. The importance of bus step height has been alluded to in the discussion on health in the previous sub-section of this review. Bus step height and the presence of railings to assist with boarding and disembarking are the most frequently identified environmental issues that influence older people's ability to use public transportation system (McLaren & Fleming, 1983; Paaswell et al., 1982; Patterson, 1985). High steps and the absence of railings make it very difficult for many older people to take advantage of available public transit. Patterson (1985) found that 65% of his sample had difficulties with the bus steps even though they were active seniors in good health.

Seventy-eight percent of Patterson's respondents also identified that the frequency of buses was a major problem, particularly on the weekends and during the day. This finding is supported by Paaswell et al. (1982) and Gant and Smith (1983). In addition, 68% of Patterson's sample noted that the bus windows were so dirty that they could not see out in order to know where they were going, and the same proportion of the sample cited concerns related to over-crowding in the bus.

In summary, the structural factors that are identified in the literature as influencing community mobility appear to fall into two broad categories. These categories are physical environment factors (i.e., weather, time of day, etc.) and service system factors (i.e., those related to traffic volumes and bus usage). By far the most frequently discussed structural factor is housing location. Authors identifying this factor (Appendix 1) believe that the further that an older person must travel to

access necessary goods and services, the more difficult their community mobility will be.

Perception of the Environment:

The studies by Golant (1984a), Patterson (1985) and Paaswell et al. (1982) suggest that fear is a major factor in influencing community mobility. This finding supports the idea of authors such as Berghorn, Shafer, Steere and Wiseman (1978), Blades (1990), Regnier (1983) and Walsh, Krauss and Regnier (1981) who suggest that older people's perception of their environment can determine to some degree, how, when and where they will be willing to travel. If an older person is afraid of a particular area, these authors suggest that this perception influences his/her community mobility within this area.

In making this suggestion these authors are embracing concepts and theories of environmental cognition and internal spatial representation. Moore and Golledge (1976) define environmental cognition as:

the study of the subjective information, images, impressions, and beliefs that people have of the environment, the ways in which these conceptions arise from experience, and the ways in which they affect subsequent behaviour with respect to the environment (Moore & Golledge, 1976, p.3).

These two authors continue their exploration and description of environmental theory, and identify that environmental cognition involves both the spatially-encoded images and the linguistically-encoded impressions which one has of the environment. They explain that environmental cognition not only refers to a person's image of the

elements of their environment¹⁰, but also of events and "dynamic, functional and cyclic happenings (like climate, the working of the public and private transportation...)" (Moore & Golledge, 1976, p.5).

In addition, the distinction is made between *perceiving* the environment and *knowing* the environment (Liben, 1981). Perception is considered to be the receiving of sensory stimuli from the environment - sight, sound, smell, taste, and texture. Knowing the environment, on the other hand, involves interpreting these messages, applying meaning to them based on beliefs, values, functional significance, etc. In discussing the distinction between these internal processes, perception and knowing, it is recognized that the two are difficult to separate when people are moving through real-world environments, for example, as they experience their own mobility through their community.

It is assumed by environmental researchers that understanding these internal processes will assist in designing environments that will facilitate function and movement of people in cities, public buildings, and institutions. For this reason, cognitive mapping is used to gain this understanding, and is thought to be a principle way of eliciting information on an individual's environmental perceptions (Blades, 1990).

Cognitive mapping, or the production of a sketch map, has been used by some authors (Regnier, 1983; Walsh, Krauss & Regnier, 1981; Rowles, 1983) as a method

¹⁰ For example roads, buildings, parks, houses, stores, etc.

by which to gain understanding of the community mobility of the elderly population. The method is also used with a wide range of age groups to explore various aspects of people's perceptions of the environment (Appendix 3). From this diversity of use it is apparent that researchers appear to conceptualize the cognitive map as multi-dimensional, and that in order to access and understand a person's perception of the environment, multiple methods are required. Furthermore, the studies which exposed subjects to unfamiliar neighbourhoods also suggest that researchers believe that people create cognitive maps through multiple sensory modes - for example: visual, kinaesthetic and verbal information (Gale, Golledge, Pellegrino & Doherty, 1990; Rovine & Weisman, 1989).

Although not discussed in any of the ten articles noted in Appendix 3, it appears that additional information can be gathered from study participants by listening to the way that they talk about the map as it is drawn. It is suggested that this qualitative information can provide insight into the multi-dimensional ways in which people perceive their environments and their movement through it.

In summary, authors that link community mobility and perception of the environment are ultimately based, in some way, on the concepts and theories of environmental cognition. These concepts and theories suggest that people actively interact with their environments and based on these experiences form images in their heads regarding these places and spaces. These experiences and images then influence future interactions with these environments, and one type of interaction is community mobility. As a result, based on the studies cited, it appears that gaining insight into

how people think about their environment could be important to understanding community mobility.

MOBILITY INFLUENCERS: SUMMARY

Based on the literature cited thus far it appears that there are three major categories of mobility influencers for older people. These categories include personal factors, structural factors (including physical environment and service system environment), and perception of the environment. In reviewing the literature on perception of the environment, it appears that this category represents an interaction between the previous two categories.

In terms of the individual factors identified within each of these categories, inconsistencies do exist. For example, some authors identify income and education as important factors, while other authors found that they have no effect (Golant, 1984a; McGhee, 1983; Iutcovich & Iutcovich, 1988). Part of this variation may be due to sample characteristics (e.g., age, urban-rural, etc.), while some may be due to analysis techniques that were used. In the case of income, part of the variation may be the result of definitional or measurement differences. Other inconsistencies, for example, living situation (e.g., alone or with others) and housing location, appear to be more a reflection of a researcher's choice to consider some factors versus others.

Nevertheless, through the studies cited it can be seen that personal and structural factors are interacting to influence community mobility in some way and that variation in an older person's community mobility cannot be solely attributed to personal characteristics or the structural setting. In some respects, the interaction of

these two components is addressed by those authors who suggest that one of the factors that influences community mobility is how an older person perceives the environment around them.

SUMMARY

This literature review focused on studies which explored the travel patterns of the elderly population, the modes of transportation they use, and the factors that influence community mobility. In the community mobility studies cited in this review, four major trends can be found. Together, these trends identify important and significant gaps to one's ability to fully understand the process of community mobility in the lives of older women.

First, inquiries into the community mobility of older people tend to use structured interviews or surveys to collect data and therefore are primarily quantitative in nature. Of the studies cited, only Eisenhandler's (1989) was identified as a qualitative study, but interestingly, identity was its focus, not community mobility. As a result, none of the studies cited provide the reader with insight into how older people think about their community mobility and its meaning in their lives.

Second, by the nature of the research methods used, community mobility studies have tended to use fixed response categories. As a result, there is a possibility that major issues, at least in the eyes of older people themselves, have been overlooked in these investigations. None of the studies explicitly identify that older people were involved in developing the questions or in defining the response categories used in the surveys or interview guides. Therefore, even though the studies identify diverse

issues, gaps in knowledge may exist primarily due to the different frames of reference of the researcher and the respondents.

Third, all of the community mobility studies cited included both men and women in their sample. Some authors attempted to consider differences between the genders, primarily through the use of multiple regression analysis, yet the analyses do not provide a comprehensive understanding of community mobility for either gender. Knowing what proportion of each gender is able to drive, or lives alone is not adequate.

Finally, all of the studies were ultimately investigating *transportation* as a means of getting from one place to another. Although this knowledge is important and valuable for people providing seniors' services, such as the health care workers, staff of multi-purpose seniors' centres, housing developers and recreation programmers, there remains a need to understand the qualitative aspects of community mobility. Program developers and evaluators are often placed in the position of having to choose or develop meaningful measures of independence and quality of life for the older, community-dwelling people that they serve in order to demonstrate favourable outcomes of existing programs, identify service gaps for new services, and ultimately compete for shrinking government dollars. Considering that the literature in this field implies possible links between community mobility, independence and quality of life, qualitative research may offer insights that can facilitate better evaluations, encourage innovative new programs, and identify priority areas for funding. Understanding the

process of community mobility would provide multiple points for comprehensive intervention and evaluation plans in a variety of settings serving older people.

CHAPTER 3: INITIAL CONCEPTUAL FRAMEWORK

It can be seen through the literature reviewed that community mobility and transportation use among older people is complex and influenced by a wide range of factors. Older people use a variety of transportation modes, and go to an assortment of destinations in and around their communities. Their experiences are broad and multi-faceted as a result. In order to ensure that my study objectives were addressed in a comprehensive manner and my interview guide reflected both the current knowledge in the field as well as the identified gaps, a conceptual framework was developed prior to data collection. The primary function of this framework was to summarize the apparent themes in the literature and to provide a guide from which to develop and choose interview questions. The framework was an attempt to reflect the imbeddedness of the women's experiences within a broader socio-political context, and to explicitly recognize the interactive nature of personal and structural resources with respect to community mobility.

The initial framework was as indicated in Figure 1. In this model the older woman and her experience of community mobility are to be considered central. The woman's experience is reflected by the nature of her community mobility (i.e., her travel patterns and modes). The inputs to her community mobility (structural factors, personal factors) and the results of this mobility (impacts and dimensions, meanings) are recognized as being embedded in, and directly influenced by a socio-political context. Although the woman's experience of community mobility is embedded

within the context in which she lives, this context can be viewed as indirectly influencing her actual mobility experience via its inputs and results.

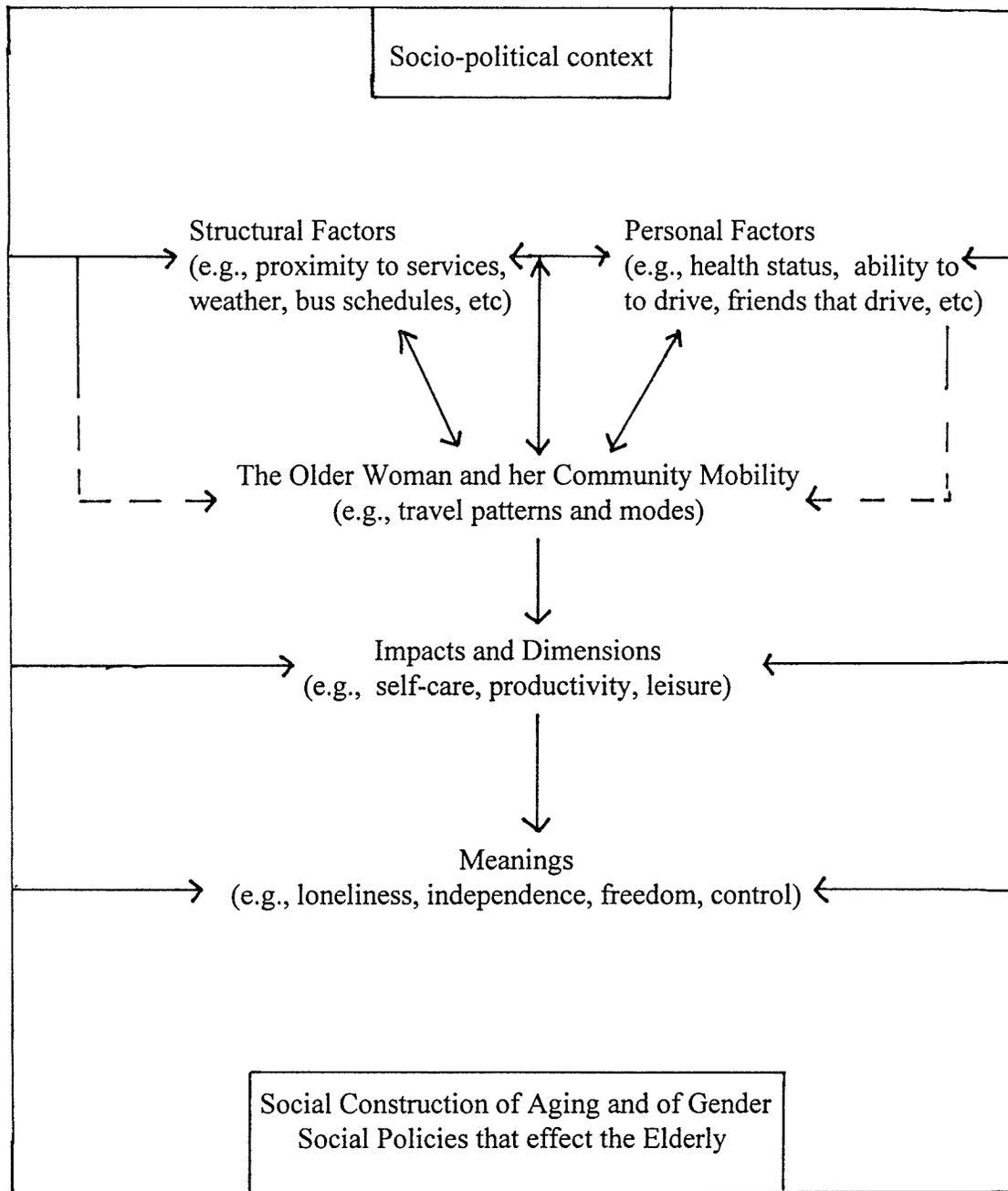
Within the socio-political context of this model both aging and gender are viewed as social constructions that effect attitudes, stereotypes, social policies and research relating to the community mobility of older women.

Additional explanation and definition of the various aspects of this model are provided below. These aspects of the model were developed based on the literature, my graduate training, as well as my own professional experiences and observations.

Structural Factors are those physical environment and service system factors that are found within a defined area and that are seen to facilitate or enable an individual's ability to function in every day life. For the purposes of this study, a defined area is a neighbourhood with a ½ mile radius (Cutler, 1972). Examples of structural factors include pedestrian cross-walks, wheel-chair ramps, parking stalls for disabled drivers, grocery stores, tele-bus program, etc. (Trombly, 1995).

Personal Factors are those individually held attitudes and beliefs, as well as actual skills and abilities, which a person possesses or develops that facilitate or enable function in every day life. Examples of personal factors include being able to drive an automobile, having good problem-solving skills, being willing to explore different options for mobility, being physically healthy, and being able to make friends (Trombly, 1995).

Figure 1: Initial Conceptual Model



Impacts and Dimensions refer to the immediate and observable result of a community mobility experience (or lack of one). For the purpose of this study,

Impacts and Dimensions will be considered as one of three types:

1) *Self-care* refers to those activities which a person does on a regular basis in order to physically and mentally maintain oneself. Self-care activities include such things as grocery shopping, banking, and going to doctor's appointments. Therefore, examples of a *self-care impact* within this study might include an inability to obtain food to eat, an inability to get out to pay bills in order to maintain one's home, etc.

2) *Productivity* refers to those activities in which a person engages for the purpose of supporting herself, her family and society through the production of goods and services. Productivity can be considered analogous to work (CAOT¹¹, 1991). Examples of *productivity impacts* that may be seen in this study include impacts on volunteer work, paid work, caregiving or child care, etc.

3) *Leisure* refers to those activities in which a person engages which are not self-care or productivity. Leisure activities are typically participated in for the simple enjoyment of the activity itself. Therefore, what constitutes leisure is extremely variable among people and over time (CAOT, 1991). For example, on one day shopping may be considered a self-care activity, but on another day it may be a leisure activity. Examples of potential *leisure impacts* for this study might include ceasing to participate in a particular past-time, or conversely, starting to participate in a new activity. Social participation, or alternatively, social isolation, would also be potential leisure impacts.

The final aspect of this model are *meanings*. *Meanings* refer to the internal and individual significance attached to the impacts and dimensions of the community mobility experience. It is recognized that not all impacts and dimensions found in this study will necessarily have individual significance. Examples of possible meanings

11

CAOT is an acronym for the Canadian Association of Occupational Therapists.

that may arise in this study include loneliness, feelings of dependence or independence, frustration, happiness, freedom, etc.

This conceptual framework guided the process of this study from its design and implementation through to data collection and analysis. The remainder of this thesis describes the methodology and findings of this study relative to this initial model.

CHAPTER 4: RESEARCH DESIGN, METHODS & IMPLEMENTATION

This qualitative study is based on the completion of a semi-structured, in-depth interview and a cognitive mapping task with 23 community-dwelling women 69 years and older. This multi-method design (Campbell & Stanley, 1966; Brewer & Hunter, 1989) offered an opportunity to understand the process of community mobility and how it has an impact on older women from the perspective of the participants themselves. By triangulating the data sources of interview transcripts, fieldnotes and sketch maps converging lines of inquiry were created (Strauss & Corbin, 1990), particularly with respect to the nature of older women's community mobility.

The interviews followed a standard format and included a statement explaining the primary focus of the research program, and the identity and affiliation of the interviewer (Appendix 4). This introduction ensured that each woman understood the nature of the project and why it was being completed prior to signing the consent agreement. Following the introduction, the Study Information Sheet (Appendix 5) was reviewed and the woman had an opportunity to ask questions regarding the project. The consent form (Appendix 6) was then explained and signed by both the woman and the interviewer. Each woman was left with a copy of the Study Information Sheet as well as a signed copy of the consent form. The interview was then conducted, and upon its conclusion the cognitive mapping task was completed using standard instructions.

The remainder of this chapter has been divided into sections which deal with the design issues of sampling, instrumentation and analysis, ethical considerations, and

implementation. The final section offers an overall summary of the research design, methods and implementation.

SAMPLING

The population of interest for this study is community-dwelling women aged 65 years and older living in an urban environment. The research site was Winnipeg, Manitoba, a prairie city located in the centre of Canada. The city offers a diverse array of community services and resources which vary in availability depending on geographical location. As well, a variety of transportation modes are available to the residents of the city, including both public and private services for elderly and disabled people.

In order to provide a broad perspective on the community mobility of older women in Winnipeg, and to reflect two of the primary factors identified in the literature (Cutler, 1972, 1975; Grant & Rice, 1983; Iutcovich & Iutcovich, 1988; Paaswell et al., 1982) as influencing this mobility, the decision was made to interview women who varied in their personal mobility skills as well as their resource environments. To achieve this variability, four strategies were used in a two staged sampling process. These included:

Stage 1: Theoretical and Definitional Stage:

- 1) Developing a sampling matrix to guide and to ensure the sample's balance and variation;
- 2) Defining resource-rich and resource-poor neighbourhoods in Winnipeg;
- 3) Developing, piloting and using an initial screening interview to determine whether a woman's community mobility was independent or limited; and

Stage 2: Active Sampling Stage:

4) Using a random sample of eligible older women.

Each of these strategies are explained, in the order listed, in the four following sub-sections.

1) Sampling Matrix:

Using the two identified variables - neighbourhood resource level and personal mobility level - a sampling matrix was developed that consisted of four sampling cells. The first variable accounts for the structural factors of housing location and distance as discussed in the literature review. The second variable accounts for the personal factors of physical abilities as well as the ability to drive oneself. These two variables were also discussed in the literature review.

Each sampling variable was dichotomized such that neighbourhood resource levels were identified as being resource-rich or resource-poor. Personal mobility level was divided into independent or limited. Based on the findings of previous studies (CARNET, 1993; Cutler, 1972; Gant & Smith, 1988; McGhee, 1983; Iutovich & Iutovich, 1988), the definitions for these variables were developed and are as follows:

Resource Rich Environments are defined as a ½ mile or a 0.8 kilometre radius in which all of the following services are found: large or medium-sized food store, bank, pharmacy, and at least one of the following: medical centre, post office, library or seniors' centre.

Resource Poor Environments are defined as a ½ mile or a 0.8 kilometre radius in which a large or medium-sized food store is not located, plus four or fewer of the following services: bank, a pharmacy, medical centre, post office, library or seniors' centre.

Independent Mobility is defined as being able to have control over when and where one wishes move around in one's community. Independent modes of travel are considered to be driving, taking the bus, walking, taking a taxi or riding a bicycle.

Limited Mobility is defined as having restricted control over when and where one wishes to move around in one's community because of a dependence on modes of transportation such as friends and family, handi-transit, or a volunteer driver service.

As previously noted, the choice of these sampling variables was based on the most prominently discussed factors said to influence the community mobility of older people in the literature. As a result, the sampling matrix formed a modified theoretical sampling approach for this study. Strauss & Corbin (1990) describe theoretical sampling as "sampling on the basis of concepts that have proven theoretical relevance to the evolving theory" (Strauss & Corbin, 1990, p.176). In a grounded theory study, this sampling process would develop as data were collected and analyzed. Since this study is not a grounded theory study, the term modified theoretical sampling better reflects the process used. The sampling matrix was developed beforehand based on the literature rather than during the course of the research as themes and issues were identified as important for sampling.

The resulting sampling matrix, and the number of women in the respective cells at the end of the study was as follows:

Figure 2: Sampling Matrix

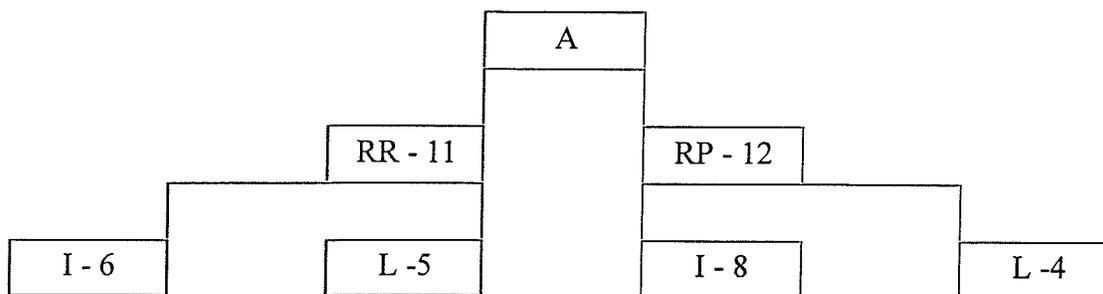
Sample = A

Resource-rich neighbourhood = **RR**

Independent personal mobility = **I**

Resource-poor neighbourhood = **RP**

Limited personal mobility = **L**



Of the 23 women who were interviewed, 6 lived in a resource-rich neighbourhood and had independent mobility, 5 lived in a resource-rich neighbourhood and had limited mobility, 8 lived in a resource-poor neighbourhood and had independent mobility, and 4 lived in a resource-poor neighbourhood and had limited mobility. The process of determining in which cell each woman fit is described in detail in the following two sub-sections of this chapter.

The greater numbers of women with independent mobility in this sample is likely due to the age of the sampling frame, and the difficulty in locating women who had moved residences. This problem is discussed further in the final chapter of this thesis in the study limitations. During each mailing of initial contact letters, an attempt was made to send out equal numbers of letters to women in resource-rich and

resource-poor neighbourhoods in order to increase the probability that balance could be achieved.

2) Defining Resource Neighbourhoods:

The use of the above-described sampling matrix required defining resource-rich and resource-poor neighbourhoods. These definitions are provided in the previous sub-section on page 58. Using the definitions for resource-rich and resource-poor neighbourhoods, a road map of the City of Winnipeg was marked with all of the medium¹² and large¹³ food stores. The stores were identified through the City of Winnipeg Telephone Directory (1994) and the City of Winnipeg Yellow Pages (1994). Around each of these food stores, a ½ mile or 0.8 kilometre radius was marked to define the neighbourhood (Cutler, 1972). Within each of these neighbourhoods, the presence of a bank and a pharmacy was determined and marked on the map. The banks were identified through the City of Winnipeg Telephone Directory (1994). Credit Unions were also included. The pharmacies were identified by obtaining the most current listing from the Manitoba Pharmaceutical Association.

For the neighbourhoods which contained a grocery, a bank and a pharmacy, it was then determined if a medical centre, post office, library or senior's centre was also found within the area. The locations of medical centres, post offices and libraries were

¹²

Medium-sized grocery stores included the following chain and independent stores: Tom Boy, Family Fare, IGA, Hull's, Harry's Food, Eaton's Downtown, Riediger's Foods and Economart.

¹³ Large grocery stores included: Supervalu, Safeway and Penner's Foods.

determined through the use of Sherlock's City Map: Winnipeg (3rd Edition) (1993). Senior's centres were identified through the Manitoba Senior Citizens' Handbook (1993).

Based on this process, neighbourhoods which met the criteria as resource-rich were identified. The remaining areas were either identified as being resource-poor, or excluded from the study because they did not meet either study definition.

Prior to or after each interview, the area in which the woman lived was driven through in order to ensure that her neighbourhood was properly categorized. In only one case was it necessary to switch the categorization because a store which had been closed recently re-opened under new management. Therefore the accuracy in categorizing neighbourhoods as resource-rich or resource-poor for the purposes of this study was 95.6%, that is, the type of neighbourhood in which the woman lived was correctly categorized in 22 of the 23 cases.

3) Initial Screening Interview:

The third strategy that was used to ensure variability in the sample was the development, piloting and use of an initial screening interview (Appendix 7). This interview was administered to only those women who agreed to participate in the study, and was used to establish whether their individual mobility was independent or limited. The definitions for these two personal mobility levels are provided on page 59.

Determining into which category of mobility a woman fit was based on how she reported that she normally travelled to the grocery, the bank, to pay bills, to go to

the doctor and to visit friends and family. The screening interview also asked if these travel modes required modification or change in the winter months.

Based on my clinical experience working with older adults in rehabilitation settings (Appendix 2), a scoring scheme was developed in order to categorize a woman as having independent or limited mobility based on her answers to the screening questions. A final question was added to the screening interview that asked the woman to identify which mobility statement best described her. This question was as follows:

Which of these statements would you agree with when you think about your ability to get around in the city?

- I am independent in my ability to get around - I can get everywhere I need to go on my own
- I am limited in my ability to get around - I need some help to get to some of the places that I need to go.

This scoring scheme was piloted with four older women during face-to-face meetings, and one older woman over the telephone. These five women were purposefully selected because they had a range of personal mobility skills and used a variety of transportation modes, including walking, driving and using a handi-van service. The scores obtained for each of these five women matched their own evaluations of their mobility level and therefore the piloting of the screening interview appeared to indicate that the scoring scheme had some validity. The screening interview took about 5 minutes to administer.

For the 23 women interviewed, the screening process resulted in the following:

Table 1: Sensitivity & Specificity of Screening Interview¹⁴

	Scored as Independent	Scored as Limited	Totals
Identified Self as Independent	12	3	15
Identified Self as Limited	3	5	8
Totals	15	8	23

As a result, the sensitivity of the screening process was 80%, and its specificity was 63%. Of the 6 women who identified their mobility in a different category than the screening score, the following is noted:

Of the 3 women who scored independent but identified themselves as limited:

- 1 woman was in the process of making a transition from driver to non-driver because of health problems. She was categorized as limited for the sampling matrix (i.e., categorized based on woman's evaluation) because she placed significant personal restrictions on her driving and had no alternative way of travelling.
- A second woman was also in the process of making the transition from driver to non-driver, but for the winter months only. She was categorized as

¹⁴

Calculations of sensitivity and specificity are used in epidemiology and community health as a means by which the validity of a diagnostic or screening test is evaluated in the absence of a gold standard. A perfectly valid test would have a sensitivity and a specificity both equal to 1 (Kramer, 1988). "Sensitivity is defined as the proportion of diseased subjects who have a positive test. Specificity is the proportion of disease-free subjects who have a negative test" (Kramer, 1988, p.207). In the case of this study, sensitivity refers to the proportion of independently mobile participants who score independent on screening. Specificity refers to the proportion of participants with limited mobility who scored limited on screening.

independent for the sampling matrix (i.e., categorized based on screening score) because she also used the bus regularly.

- 1 woman moved around throughout the city by bus on her own, but because she had difficulties with the high bus steps she felt that her mobility was limited. She remained categorized as independent for the sampling matrix (i.e., categorized based on screening score).

Of the 3 women who scored limited but identified themselves as independent:

- 2 of the women were non-drivers who received all of their rides from their husbands and identified that as long as their husbands drove, they were independent. Both women were categorized as limited for the sampling matrix because when their husbands were unavailable, they had no alternative means of transportation (i.e., categorized based on screening scores).
- 1 woman was a non-driver who received most of her rides from her daughter. She categorized herself as independent because she said that she could afford to take taxis everywhere if she wanted. This woman was categorized as limited for the sampling matrix because of her physical abilities - she has difficulties walking and needs assistance to enter and exit a vehicle (i.e., categorized based on screening score). When she calls a cab, she needs the driver to assist her from her door to the vehicle.

In these six situations, I made the determination of the woman's mobility level, for the purposes of the sampling matrix and analysis, after the interview. The basis for these decisions included the woman's actual dependence on other people for her community mobility based on her reports of where she went and how she got there, whether she was able to go out if her primary mode of transportation was unavailable to her and her need for physical assistance. As a result of these decisions, the final analysis involved fourteen women with independent mobility and nine women with limited mobility.

4) Random Sampling:

Like many other studies that have looked at the community mobility of older people, the sample for this study was randomly selected in order to reduce the potential biases of convenience sampling through seniors' centres, clubs or apartment buildings.

The random sample was drawn from the Living Arrangements Data Base (LADB)¹⁵, held at the Centre on Aging at the University of Manitoba. The LADB was the result of a 1985 study that explored the relationship between the living arrangements of elderly people and their use of health and social services¹⁶. The LADB contains the identification numbers for the 1,284 community-dwelling and institutionalized older men and women throughout the province of Manitoba who were interviewed for the living arrangements study. The original sample for the Living Arrangements study was randomly selected from the Manitoba Health Services Commission registry, the most comprehensive listing available of people residing in

15

The Living Arrangements Data Base was created for the study entitled: Living Arrangements and Primary Care: Their Relevance for Formal Health Care. The principal investigators were Neena L. Chappell, PhD and Colin Powell, MD, FRCPC. The study was funded by the NHRDP, #6607-1356-43. The final report of the study was submitted in August, 1987.

16

The formal objectives for the study were: 1) Examine the relationship between informal caregiving and living arrangements through a sampling design which will include stratification by living arrangements (intact marriage, living alone, living with a person other than a spouse); and 2) Examine the variation in the utilization of formal health and social services as it relates to informal caregiving and living arrangements.

the province. As a result, the LADB can be considered to be representative of the older population in Manitoba.

In order to draw a random sample for the current study, a formal written request was made to the Director of the Centre on Aging. Permission was granted at the end of August, 1994. When identification numbers were drawn, the selection was limited to community-dwelling women living in Winnipeg and was further stratified to evenly represent women who were single, divorced or separated, married and widowed. This stratification was done primarily because the data base allowed such a stratification, but also because there is some indication in the literature that marital status influences community mobility (Doyle, 1988; Grant & Rice, 1983; Iutovich & Iutovich, 1988; McGhee, 1983; Smith & Hiltner, 1988).

Because the original 1985 living arrangements sample included people aged 60 and over, the intervening years has meant that the use of this data base limited my study to interviewing women 69 and over, rather than women 65 and over. As well, it also limited my ability to interview women who had moved in the intervening years. The implications of the final point are discussed in the study limitations section of final chapter of the thesis.

A total of 290 identification numbers were drawn from the data base in order to ensure that an adequate number of interviews would eventually be obtained, knowing that there would be women who could not be located, had been placed in an institution, had died, refused or were ineligible. To obtain an adequate number of interviews, it was only necessary to use 109 of these 290 identification numbers.

To be eligible for this study, a woman had to be community-dwelling, and her address had to fall clearly into one of the identified neighbourhoods. This confirmation was accomplished by using the Henderson Directory (1993) and superimposing the address of each woman onto the study's City of Winnipeg map which had the neighbourhood resource levels marked on it. Those addresses that were located in areas that overlapped or were outside of the two types of neighbourhoods were excluded.

A third criterion for inclusion in the study was functional use of the English language. Since the information sheets on each of people contacted for the living arrangements study identified primary language, this exclusion was simple to determine.

The final criterion for the study was an adequate cognitive status to understand the nature of the study and the consent agreement. Signs of cognitive deficit were found in one woman, while in a second case, cognitive deficits were reported by a caregiver. When contacted by telephone the first woman did not remember receiving the letter outlining the study. To ensure that she had received one, a second was sent to her. On the second call, she remembered the letter, agreed to participate and was screened. During the screening process, she had difficulty providing her age. An interview was arranged, but she forgot it and was not at home when I arrived. A second interview was arranged which she remembered. When explaining the study to her, in preparation for signing the consent form, it was apparent that she was forgetting

who I was and what we were discussing. Upon mutual consent, the session was terminated and the interview was not completed.

The second woman, who agreed to participate and was screened was also excluded due to cognitive deficits. The woman remembered receiving the contact letter, and suggested an interview day. She was not home when I arrived. I called to arrange a second interview and she apologized for not being home. She reported that she could not find my letter in order to call me to cancel the interview. When I arrived for the second interview, I was greeted at the door by a caregiver who indicated to me that the woman was very confused and not appropriate for an interview. The interview was not completed.

To obtain 23 interviews using these four sampling criteria, 109 LADB identification numbers were matched with the living arrangements study information sheets in order to obtain women's names, addresses and telephone numbers. These addresses and telephone numbers were then compared with the The Who Called Me? Directory (1994) and the City of Winnipeg Telephone Directory (1994) in order to confirm each woman's location of residence. The results of this process are shown on Table 2.

Table 2: Numbers of Women Located versus Not Located

Status	Number
Located through Directories	68
Not Located through Directories	41

Of those women who were located, five were excluded because they did not meet the geographical criterion for inclusion in the study (63 included). Seven women were never contacted for the study because an adequate number of interviews were obtained. Of the 56 women who were contacted for the study, 14 were found to be ineligible to participate, 19 refused to participate and 23 agreed to participate. A summary of the reasons for ineligibility and refusal can be found in Table 3.

Table 3: Reasons for Ineligibility and Refusal

Status	Number
Ineligible to Participate:	(14)
Cognitively impaired	2
Died	1
Husband not well	1
Mother just died	1
Sick	6
Unable to reach by telephone	1
Going on holidays	2
Refused to Participate:	(19)
Not interested	11
Drive, have nothing to offer	3
Too busy	2
Refused information *	3

* - for these three women, I was able to find a telephone number only. When I called to obtain an address, they refused to have the study information sent to them.

Based on these figures, the success in locating women for the study was 62%, and the geographical exclusion rate was 7%¹⁷. Of those women contacted, 25% were ineligible to participate in the study. The overall response rate¹⁸ for the study was 55%.

Of the women who refused or were ineligible to participate in the study, it is believed that approximately equal numbers were living in each of the resource neighbourhoods based on marking their addresses on the study's City of Winnipeg map. Although screening interviews were not conducted on any of these women, with the exception of the two women who were found to be cognitively impaired, some of them did volunteer how they travelled around the city. Two of the women who indicated that they were not interested in participating in the study said that they got around in the city by bus or by getting a ride with their husbands. Therefore, it is assumed that these women would have scored independent on the screening interview. The woman who indicated that her husband was not well (deemed ineligible to participate) noted that transportation was a major problem for her because she did not drive. It is assumed that she would have scored limited on screening. None of the other women, except for those three who refused because they were still driving,

17

Exclusion rate was calculated using women who were excluded due to geographic reasons (5) divided by the total number of women that were located (68).

18

Response rate was calculated using women who accepted (23) divided by the number of women who were eligible to participate (42).

offered their mode of transportation. As a result, it cannot be determined if any of the sampling cells experienced a greater refusal rate than the others.

In summary, the sampling process can be considered to have had two distinct stages - a theoretical or definitional stage, and an active sampling stage. Both stages are graphically represented below (Figure 3). Overall, the sampling design combined both qualitative and quantitative strategies in order to obtain a sample of women who could provide information on a broad range of community mobility issues and experiences. Findings from previous studies were used to form the sampling matrix, and this aspect of the sampling design is a modification of the theoretical sampling approach described within grounded theory (Strauss & Corbin, 1990). The strategy used to define neighbourhoods, and the random sampling from the LABD, are the quantitative contributions to the process.

INSTRUMENTATION AND ANALYSIS

Two methods were used to gather data for this study - semi-structured, in-depth interviews and cognitive maps. Each method will be addressed separately in this section.

Interviews:

Semi-structured, in-depth interviews provided the primary data source for this study (Appendix 8). Since the major goal of this study was to understand how older women viewed community mobility and the importance of it in their lives, as well as how they perceived personal, structural and socio-political factors as influencing their mobility, the use of the qualitative interview was chosen as the most appropriate method. The method offers the opportunity to obtain the insider's perspective, ensure coverage of the major research objectives with all participants, and to allow unexpected issues and themes to emerge (Kaufman, 1994; Morse, 1992; Whyte, 1984).

The interview questions were adapted from a variety of sources (B. Havens, J. Kaufert, G. Marchessault, L. Strain - personal communication, 1993-1994), and included both closed and open-ended types. The questions were chosen and adapted in order to reflect the objectives of the study and to provide basic information on the woman's background. The interview was organized to move from simple, fact-based questions to more complex, introspective questions and then back to simple questions. This organization is recommended by Whyte (1984), as a way of easing interviewees into the interview, gathering the information, and then offering an appropriate closure.

The first section of the interview asked the woman to provide background information including her age, place of birth, educational level, work history, marital status, living arrangements, and health and financial status. The questions on health and financial status were taken from the Aging in Manitoba (AIM) longitudinal study (Manitoba, Division of Research, Planning and Program Development, 1973), and the question regarding educational level from the CARNET (1991) study.

The second section of the interview focused on the nature of the woman's community mobility by asking her to describe the activities of her typical day and typical week. Probing questions were used to ensure that the woman identified those activities she was going out into the community for, how she was getting to these places, and how happy she was with the amount she was getting out. Cues were provided on the interview guide so that I could ensure that typical self-care, productivity and leisure outings were covered in the woman's response¹⁹. Places that she did not mention, for example, going to church, were then probed to ensure that the nature of her mobility was clearly understood and as comprehensive as possible. The final question in the section asked the woman to reflect on the change her activities have undergone as she has grown older. Specific changes which were probed included the activities themselves, the locations of the activities, her amount of participation, and the amount she was going out.

19

Refer back to page 54 for general definitions of self-care, productivity and leisure activities.

The third section of the interview asked the woman questions about the factors that influenced her community mobility. To begin this section, the woman was asked to reflect on the activity changes that she had just identified, and then try to account for these changes. To ensure that she had considered a range of potential influences, probes for potential personal, environmental and socio-political factors were used. These probes addressed the personal and structural influences discussed in the literature (Appendix 1), as well as the broader issues that were identified in the study's initial conceptual framework.

The woman was also asked to identify what factors were currently influencing her travels through the city, both in making it easier and in making it difficult. Personal, environmental and socio-political probes from the previous question were used again to ensure that coverage of potential issues was complete.

The final questions in this third section of the interview were specifically designed to address and get a woman to consider the socio-political factors which may influence community mobility. She was asked whether or not she thought the factors that she identified as making community mobility easy or difficult were related to the fact that she was a senior and a woman, and whether she thought that senior men would identify different influencing factors. The woman was also asked if she thought that city officials considered the needs of seniors when making transportation plans and policies, and the reasons for her opinion. Finally, the woman was given the opportunity to make recommendations on ways to make the city more accessible for seniors.

The fourth section of the interview addressed issues relating to the impact and meaning of community mobility for the women in the study. Questions asked what a woman would do if she was unable to get somewhere she wanted or needed to go, and why she would make that particular choice. She was asked whether she had ever had the experience of being unable to get somewhere, and what that was like for her, particularly how it made her feel and what she did about those feelings. Places that were the worst not to be able to get to were then asked to be identified. The woman was asked to consider if she felt in control of her community mobility, and to rate the importance of it for maintaining her independence. The final question of the section asked the woman to give her opinion on whether accessible transportation was a right or a privilege.

The summary and closing section was designed to ease the interview to a close. The questions included background on the woman's length of time in her current residence. Women who had been in the residence for less than two years were asked why they had moved to the location, while women who had been in their homes for more than 10 years were asked why they stayed. Questions about the presence of basic services were asked, and whether the woman thought her area had everything that she needed on a regular basis. Finally, the woman was asked if she had any additional thoughts and comments to add to the interview.

Interviews were analysed throughout the data collection phase of the study by taking fieldnotes and expanding them as soon after the interview as possible and by doing my own transcription to ensure that I was familiar with the content of the

interviews. As transcripts were completed, they were printed and margin notes and memos were made regarding apparent themes and patterns. The 'Find' function in WordPerfect 6.0a for Windows (WordPerfect Corporation, 1994) was used to search, find and retrieve text to explore the emerging themes and their relationship to the women's mobility status and resource environment.

Throughout this process, variations in the data were explored and alternative explanations were actively sought. Transcripts were initially analyzed using open coding (Strauss & Corbin, 1990). This step was followed by the formation of more inclusive thematic categories through axial coding (Strauss & Corbin, 1990). Eight themes arose through this process.

Presentation of these themes in the form of a case study was felt to enable the most comprehensive analysis and understanding. Exploring, writing and reporting of these themes through case studies preserves the women's narratives, retains the contexts of their life situations and mobility stories, and offers the readers a contextual foundation for the themes discussed. The result is an overall analytic framework that combines an instrumental and a collective case study approach. Stake (1994) describes these two types of case studies in the following ways:

In what we may call *instrumental case study*, a particular case is examined to provide insight into an issue or refinement of theory. The case is of secondary interest; it plays a supportive role, facilitating our understanding of something else. The case is often looked at in depth, its contexts scrutinized, its ordinary activities detailed, but because this helps us pursue the external interest. The case may be seen as typical of other cases or not. The choice of the case is made because it is expected to advance our understanding of that other interest. (p.237)

...researchers may study a number of cases jointly in order to inquire into the phenomenon, population or general condition. We might call this *collective case study*. It is not the study of a collective but instrumental study extended to several cases. Individual cases in the collection may or may not be known in advance to manifest the common characteristic. They may be similar or dissimilar, redundancy and variety each having a voice. They are chosen because it is believed that understanding them will lead to better understanding, perhaps better theorizing, about a still larger collection of cases. (p.237)

The end product of this combined approach is what will be referred to here as an *integrated case study*. This integrated case study profiles one woman and identifies the major themes which emerged from her interview (*instrumental case study component*). The analysis then continues and expands to explore these major themes by drawing in the narratives of other women in the study (*collective case study component*). As a result, the integrated case study allows the development of themes which remain close to the data; the exploration of complexities, subtleties, variations and sub-themes; and ultimately the formation of substantive theory (Kirby & McKenna, 1989).

The process of choosing the individual women for the instrumental component of the integrated cases involved the following steps:

- 1) Reading, re-reading and making margin notes on all of the interview transcripts (*open coding*);
- 2) Identifying inclusive themes (*axial coding*); and
- 3) Choosing women in whose transcripts two or more of the inclusive themes were predominant, well-elaborated and richly storied.

The women chosen through this process - Louise, Brenda and Jane²⁰ - offer the reader variability of themes, and through the inclusion of the narratives of other women, identify some commonalities as well.

The analysis of the interviews therefore involved organizing the data, identifying patterns and themes, testing emerging hypotheses, and reflecting on the findings throughout the research process (Kirby & McKenna, 1989; Marshall & Rossman, 1989; Strauss & Corbin, 1990).

Cognitive Maps

A cognitive mapping task which resulted in the production of a neighbourhood sketch map was the second method of data collection in this study (Appendix 8). This method was chosen in order to capture the older women's perceptions of their environment. Through the process of drawing the map, it was anticipated that the women would identify places where they went but had not mentioned during the interview. It was also anticipated that women would relay stories about how and when they went to specific places that they marked on their map.

Cognitive maps have been identified as having strong content validity by some authors (Blades, 1990; Weisman, 1982). Content validity, or face validity, reflects the extent to which a measure reflects a particular domain of content (Bergner & Rothman, 1989; Carmines & Zellers, 1979; McDowell & Newell, 1987). Others have suggested that cognitive maps have face validity because they are an ecologically valid

20

These names are pseudonyms to protect the anonymity of the study participants.

tool that reflects real-world situations including the relationship between the person and his/her environment (Blades, 1990; Evans, Brennan, Skorpanich & Held, 1984).

Measures taken from cognitive maps vary significantly across disciplines. Authors using cognitive mapping primarily for qualitative research have focused on the content of the maps, specifically what types of places are most frequently marked on a map, as well as how people talk about their neighbourhoods as they draw (Appleyard, 1970; Ladd, 1970; Moeser, 1988; Regnier, 1983). In situations where the participant is familiar with the area or route that is being mapped, the stability of sketch maps has been demonstrated (Blades, 1990).

For the purpose of my study, the instructions and process of the mapping exercise was adapted from previous studies which used the technique with older adults (Regnier, 1983; Walsh et al., 1981) as well as other age groups (Appleyard, 1970; Ladd, 1970). The instructions were developed to address the limitations of the cognitive mapping method identified by previous authors²¹. The instructions were simple and repetitive, and explained to the woman that she could choose her own

²¹ Limitations identified include: dependent on the graphic ability of the participant; dependent upon where on the page the participant starts to draw and the amount of paper provided; dependent on the writing tool provided for the task (e.g., is the option to erase available?); dependent on the complexity of the instructions provided; dependent on the participant's familiarity with cartographic maps; dependent on the participant's stage of visual-spatial development; and dependent on the confidence of the participant (e.g., Appleyard (1970) describes participants who refused to draw a map because they were concerned it would have errors).

writing utensil, could use more than one sheet of paper if she wished, was allowed to erase or start over, and that no time limit would be imposed on her.

The instructions were piloted with four older women who ranged in their personal mobility skills and resource environments. Their comments during the pilot were used to modify the instructions to facilitate understanding. Although none of the women involved in the pilot had any visual problems, a strategy was developed to deal with this potential problem were it to arise in the actual study. The use of this strategy was never required.

The mapping exercise was completed by the women after their interview. The dialogue which occurred during the drawing of the map was tape recorded and fully transcribed.

Modified content analysis of the maps considered what types of places (e.g., groceries, friends' homes, etc.) women placed on their maps and the frequency of these placements. The content of the maps was counted, then organized and recorded using QuatroPro for Windows Version 5.0 (Borland International, 1993). Chi-squared analysis was attempted to look for associations between neighbourhood resource levels, mobility levels and the types of sites included on the maps. This analysis was limited by inadequate numbers in some cells, in addition to empty cells. Therefore, statistical analyses were not pursued. The descriptive details of the process of the map analyses, as well as the actual map contents, can be found in Appendix 10.

ETHICAL CONSIDERATIONS

This study was approved by the University of Manitoba's Faculty Committee on the Use of Human Subjects in Research. In addition, the Centre on Aging approved the use of the Living Arrangements Data Base based on the study design, including the ethical safeguards, methods and objectives.

The initial contact letter sent to the women provided the objectives of the study in clear language, and identified the approximate time commitment that would be required if they decided to participate. Upon the initial telephone contact, a verbal explanation of the study was provided and the women were given an opportunity to ask questions about the study. Women who agreed to participate were then provided with a Study Information Sheet (Appendix 5) at the time of the interview, and its content was reviewed. All participants signed two copies of the consent form (Appendix 6) - one copy was retained by the women and the other by me. One woman did not wish to keep a copy for her own records, and in her case, only one copy was signed.

Throughout the report of this research first name pseudonyms have been used and potentially identifying features have been altered in order to protect the anonymity and confidentiality of the participants.

IMPLEMENTATION AND CHRONOLOGY OF FIELDWORK

The proposal for this research project was initiated in the fall of 1993, and was submitted to the Human Subjects Review Committee in May of 1994. Ethics approval was received on June 2, 1994.

A pilot study was undertaken over a period of two days in early July of 1994 in a small south-central Manitoba community. The pilot was conducted outside of Winnipeg to ensure that there would be no risk that women involved in the pilot would be selected for the actual study. Some questions in the interview guide, specifically the questions regarding the nature and importance of community mobility, had also been pretested in October of 1993 with two women living in Winnipeg.

In August 1994 a formal request was made to access the Living Arrangements data base for sample selection. Approval was granted the following week. The sampling frame was obtained in early September, and three separate visits were made to the Centre on Aging to match the identification numbers with the living arrangements study information sheets.

Contact letters were sent out on four occasions and were followed by a telephone call to request participation (Table 4). The response rate was discussed earlier in this chapter (page 71).

Table 4: Chronology of Initial Contacts

Date Sent	# Sent	# Accepted	# Ineligible	# Refused
September 22, 1994	31	14	6	11
October 31, 1994	9	4	4	1
November 14, 1994	9	3	2	4
November 30, 1994	7	2	2	3

Interviews were conducted starting September 27, and continued until December 19, 1994. Women were given the choice of the interview site, and all chose

to be interviewed in their home. The number of contacts required to obtain an interview ranged from 1 to 5 with an average of 2.11. The process of the interview itself has previously been described on pages 74 to 77.

The interviews ranged in length from 50 minutes to 170 minutes, with an average of 97 minutes. All but two interviews were tape recorded and fully transcribed. Two women refused to have their interviews recorded because they were uncomfortable speaking into a tape recorder. Three other women requested that the tape recorder be turned off during parts of their interviews because they did not want their views on specific topics to be recorded. In all of these situations, an attempt was made to record the comments of the women as accurately as possible on paper. These notes were expanded as soon after the conclusion of the interview as possible.

Analysis was done over the course of the interviews, with the first themes being identified in late October of 1994. The writing of these themes, within the context of case studies, was initiated in late December of 1994, and continued until late April of 1995. The analysis of the maps was initiated in late January of 1995. The writing and revising of the report occurred primarily between January and June, 1995.

SUMMARY

This qualitative study used semi-structured, in-depth interviews and a cognitive mapping exercise to collect data on the nature and impact of community mobility from 23 older, community-dwelling women. The modified theoretical sampling strategy used the variables of neighbourhood resource levels and personal mobility levels to

identify four sampling groups within the study. The sample was derived randomly from the Living Arrangements Data Base provided by the Centre on Aging.

Interviews were conducted between September and December, 1994, with analysis ongoing throughout the data collection phase and thereafter. The interview transcripts were analyzed using open and axial coding. Integrated case studies were used to present and report on the themes which emerged. The cognitive maps were analyzed using a modified content analysis approach.

CHAPTER 5: THE NATURE OF WOMEN'S COMMUNITY MOBILITY

One of the primary objectives of this study was to describe the nature and importance of community mobility in the lives of older women. Although the majority of this objective is dealt with in Chapter 7 through the integrated case studies, an overall summary will be provided here to give a broad perspective on the nature of the participants' community mobility.

In total, 23 women participated in this study and were interviewed in their homes. The interview data provided the richest understanding of the nature of the women's community mobility because the responses were multi-dimensional. Through their verbal stories, the women explained where they go, how they get there, and how their mobility has changed over the years. The interview data offered a temporal component that provided a perspective on the overall amount (i.e., how often) each woman is getting out of her home and into the community. Furthermore, the women's responses to the background questions at the beginning of the interview provided additional contextual understanding of their current mobility experiences. These responses are summarized below.

THE PARTICIPANTS

At the beginning of each interview, the women were asked to provide basic demographic information. This information reflected the personal and structural factors identified as influencing community mobility in the literature review (Appendix 1). A summary of these participant characteristics is provided in the following paragraphs. Detailed information, by sampling groups, can be found in

Appendix 11. Individual summary profiles of each woman in the study, by sampling group, can be found in the summary charts in Appendix 12. Pseudonyms have been used to protect the women's anonymity.

Personal Factors:

The 23 women who participated in this study ranged in age from 69-88 years of age (mean=75.9). Twelve of the women were 75+. Ten of the women were married, although one of these women was living alone because her husband was in a personal care home. The remaining nine married women lived with their husbands. Eight of the women were widowed and living alone. One woman was separated and living with her sister, another was divorced and living alone. Of the three single women who participated in the study, two of them lived alone while the third one lived with her sister. Sixteen of the women lived in a single-dwelling house, four lived in an age-integrated apartment building, and the remaining three lived in an age-segregated apartment building.

In terms of health status, four women described their health as excellent, and one described it as between excellent and good. Nine women described their health as good. Eight women described their health as fair, and only one woman stated that her health was bad. Only four of the women in the sample used a walking aid, and only one of these women needed her aid on a continuous basis.

The majority of the women in the sample had completed high school and some form of additional training. Six of the women had completed high school, three had completed high school and some form of vocational training, and six others had

completed high school and some university. Only one woman in the sample had less than six years of formal education. The remaining seven women had some secondary schooling. As a result, over the entire sample, the range in years of education was 5 to 18. The mean number of years of education was 11.5. All but one of the women had worked outside of the home for some period of her adult life.

When asked to rate the adequacy of their income, eight of the women said that their current income and assets met their needs very well. Twelve of the women said that it was adequate. Only three of the women identified that it was difficult to meet needs with their current income.

In terms of the availability of personal transportation, six of the women were driving their own cars at the time of the interview although one of these women was having great difficulties and was actively seeking an alternative mode of transportation. Only one of the women used the bus exclusively to move around in the city. Eight others used the bus in combination with some other mode (2 - drives self and uses bus; 6 - walks and uses bus). Five of the women depended on family members for all of their rides. Three women depended on family members but also used handi-transit services.

Structural Factors:

As previously noted, 11 of the women lived in a resource-rich neighbourhood. In other words, 11 women in the sample lived within a ½ mile (0.8 km) of a large or medium sized grocery store and had similar proximity to a pharmacy and a bank. In

addition, these women had at least one other major service (i.e., medical centre, post office, library or seniors' centre) within a ½ mile of their homes.

Twelve of the women lived in a resource-poor neighbourhood. Among these women, the average distance to the closest grocery store was 0.93 miles (1.43 km).

The longest distance to the closest grocery store was 2.2 miles (3.6 kilometres).

Although some of these women had access to some services in their neighbourhoods, all of them had access to fewer than four major services within a ½ mile of their homes.

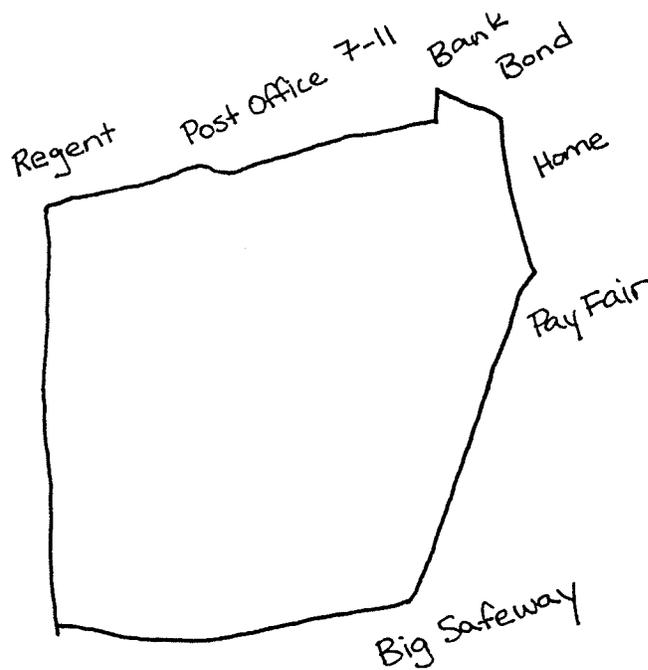
Differences Between the Four Sampling Groups:

A full report of the characteristics of each of the four sampling groups can be found in Appendix 11. Comparisons across the groups suggests that there are no differences in the age, health, living situation or income of the women by grouping. It does appear that women with independent mobility are more likely to have some university education (5) compared to women with limited mobility (1). It is interesting to note that only women with limited mobility live in age-segregated apartment buildings, identify travelling with their family members as their primary mode of transportation, and use walking aids.

The contextual understanding provided by the background questions from the interviews was enhanced by the women's cognitive maps. Although the cognitive maps did not offer the same multi-dimensional understanding as did the interviews, they did provide a means to discover how women thought about their community

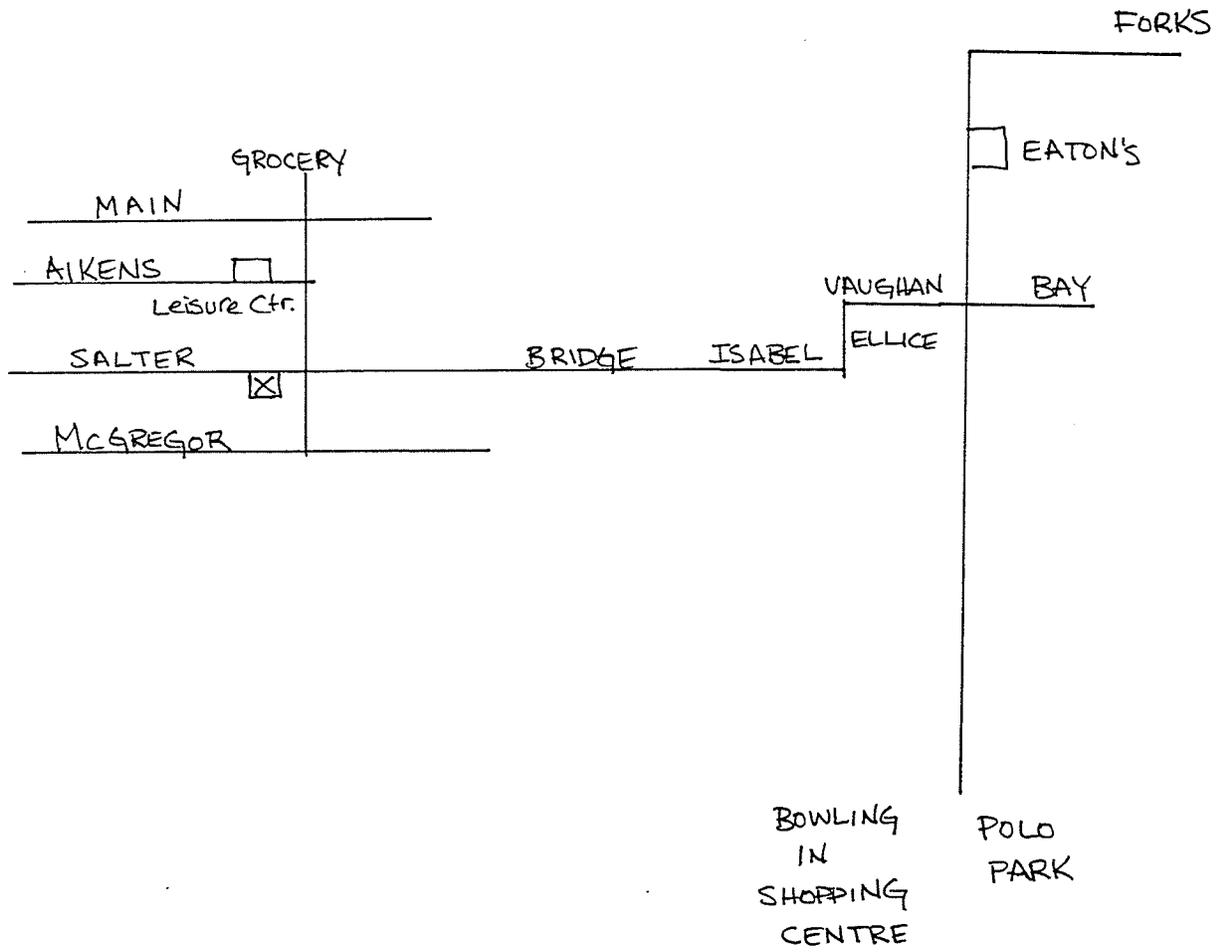
mobility. For example, one woman saw her community mobility as following a circle through which her daughter drove her to take her to do her necessary errands (Figure 4). Another woman presented her community mobility in terms of her bus route, and included all of the turns that her primary bus takes as it travels downtown (Figure 5). Through the process of watching the women draw their maps insights into the scope of their mobility was gained, and additional information was gathered about those locations that were of particular importance for them, or that defined their neighbourhoods and travel spaces (Figure 6).

Figure 4: Sketch Map: Community Mobility as a Circle:



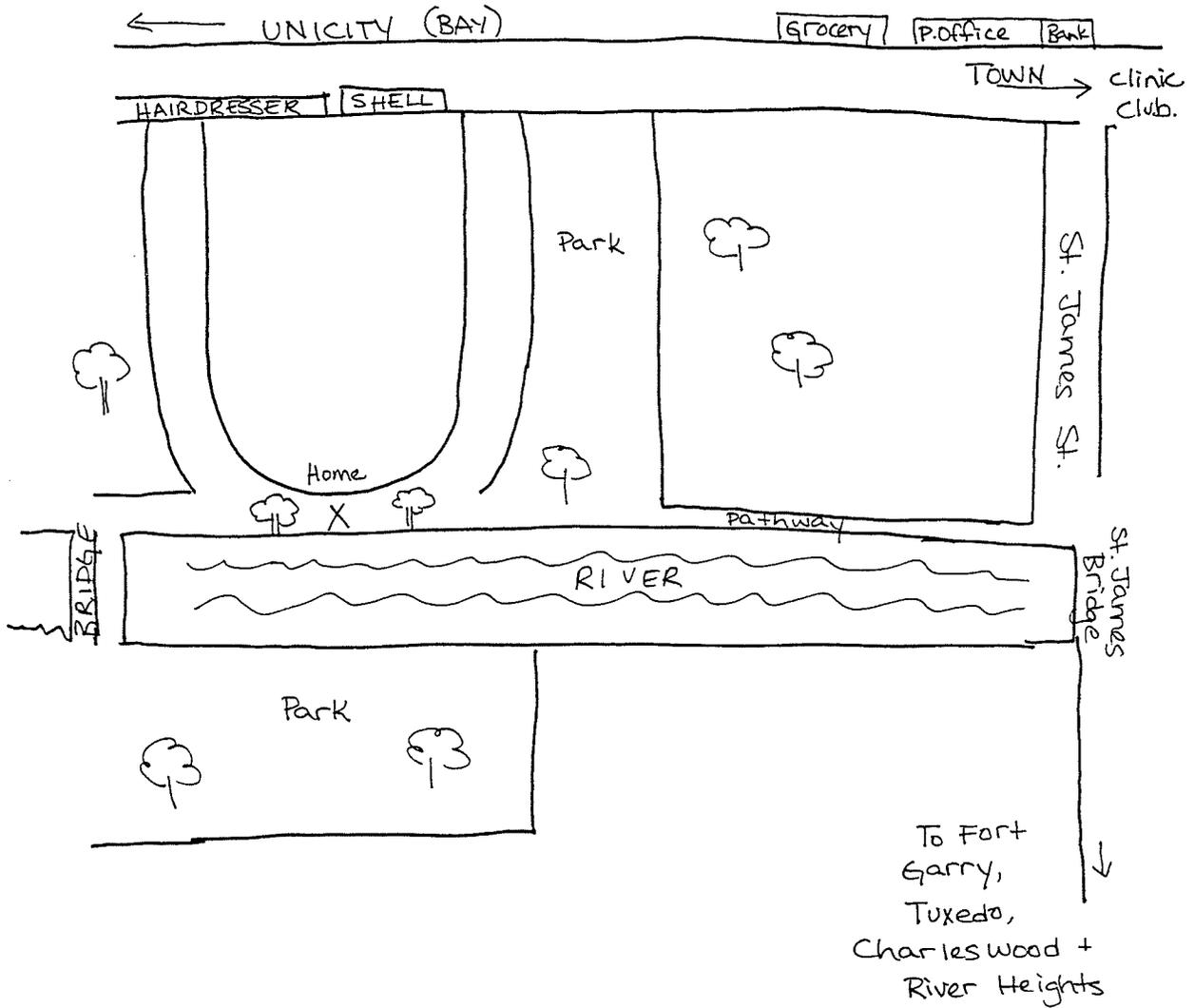
(Traced from original)

Figure 5: Sketch Map: Community Mobility in terms of a Bus Route:



(Original Reduced to 70%, Traced)

Figure 6: Sketch Map: Locations of Importance, Definition of Neighbourhood:



(Original reduced to 65%, Traced)

With this contextual background described, the intention of the remainder of this chapter is to provide the reader with an understanding of where the participants go and how they get there. The factors that the women perceive to be influencing their community mobility, whether negatively or positively, are dealt with in the next chapter.

DIMENSIONS OF COMMUNITY MOBILITY

Interview data as well as the cognitive maps revealed that the women who participated in this study primarily move around in the city for four purposes:

- 1) To conduct instrumental activities of daily living tasks (IADL);
- 2) To fulfil their needs for social, recreational and leisure activity;
- 3) To participate in voluntary activities; and
- 4) To fulfil social obligations (e.g., activities that the woman perceives that she must attend, for example, funerals and weddings).

The first two dimensions match those noted in the literature review, while the third and fourth dimensions are not specifically identified in those studies which have explored the travel patterns of the elderly population (Ashford & Holloway, 1972; Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Paaswell et al., 1982). The first, second and third dimensions correspond to those identified in the initial conceptual model under the impact areas of self-care (instrumental activities of daily living), productivity (voluntary activities), and leisure (social, recreational and leisure activities).

These four types of activities require micro-mobility, or mobility that keeps the women within the city perimeter. This finding is consistent with previous travel pattern studies (Ashford & Holloway, 1972; Carp, 1971, 1972; Cutler, 1975; Smith, 1984, 1991; Paaswell et al., 1982). Unexpectedly, macro-mobility, or mobility that takes the women outside of the city perimeter, was also very important and prevalent for many of the women interviewed. These two types of mobility will be addressed separately.

Micro-Mobility

All four of the dimensions of community mobility were seen in the women's micro-mobility. Travel within the city perimeter was conducted to complete daily living tasks, to participate in various leisure activities, to engage in volunteer activities, and to fulfil social obligations. Each of these four sub-categories will be described separately. *Instrumental Activities of Daily Living:*

This sub-category was the most frequent among the mobility dimensions for the women in the study. The purpose of these instrumental activities of daily living trips for the women are twofold - to care for themselves and to maintain their homes. Some examples of outings conducted for these purposes include going grocery shopping, going to the bank to pay bills, going to the hairdresser and going to the doctor.

Going out to do grocery shopping was the most frequent outing for most of the women who were interviewed. Interestingly, the grocery store was also the site most

frequently marked on the maps of the women, with 14 of them including at least one and 8 of them including 2 or more.

Four of the women, all with independent mobility, go for groceries almost every day to pick up a few small items. Although two of them tend to go out specifically for groceries, the other two are shopping because they are out and about anyway. Similarly, four other women with independent mobility blend their shopping in with other outings, and therefore go to buy groceries two or three times per week.

Only one woman, Teresa (RP/L, FM, Bd)²², was unable to identify her grocery

22

The pseudonyms used here and throughout the remainder of this thesis correspond to those identified in the charts in Appendix 12. In order to assist the reader to identify the major personal and structural characteristics of the individual women, a set of codes follows each pseudonym. The first code represents the sampling group of which the woman is a part:

RR/I - resource-rich neighbourhood, independent mobility

RR/L - resource-rich neighbourhood, limited mobility

RP/I - resource-poor neighbourhood, independent mobility

RP/L - resource-poor neighbourhood, limited mobility

The second code refers to woman's primary mode of transportation:

D - drives

B - bus

FM - family

T - in transition - currently driving but looking for an alternative

The third code refers to the woman's self-perceived health status:

E - excellent

G - good

F - fair

Bd - bad

shopping routine since she plans her grocery shopping by sales. Therefore, her shopping frequency is quite variable. Specific weekly shopping days are the routine for three women with independent mobility, and three women with limited mobility. At the time of the interview, one of these latter women, Gertrude (RP/L, T, F), was trying to find a store that would deliver so that she could avoid driving. In this group of weekly shoppers, both Margaret (RP/L, FM, F) and Sylvia (RR/L, FM, G) shop on the days that their family members go in order to get a ride.

Of the remaining eight women, three of them tend to shop every three to four weeks and stock up. To do this trip, one of the women takes the bus to the store and gets a cab home because she cannot carry a large volume of groceries on the bus. Another lives close enough to a grocery store that she can walk and use a cart to bring her groceries home. The last five women do not go out to do grocery shopping, either because their husbands do it (2 women), or because they have it delivered (2 women). Yvonne (RR/L, FM, G) does not do any grocery shopping because three meals are offered daily in her apartment building. Table 5 summarizes the pattern of grocery shopping trips across the four sampling groups.

Table 5: Pattern of Grocery Shopping Trips by Sampling Group:

	Daily	Blended	Weekly	3-4 Weeks	Other	Total
RR/I		3	1	2		6
RP/I	4	1	2	1		8
RR/L			1		1 - meals provided 2 - delivery 1 - husband goes	5
RP/L			2		1 - husband goes 1 - goes for sales	4
Total	4	4	6	3	6	23

The women talked of a number of other IADL tasks that required outings into the community. Next to grocery shopping, the most frequent outings were going to the bank (marked on 11 maps) and going to the hairdresser (marked on 3 maps). Considering the frequency that the women went to the hairdresser, it is not clear why this site was marked so infrequently on the maps. One possible explanation is that the women's hairdressers were located in shopping malls (marked on 11 maps).

For most of the women, going to the bank occurred once a month after their Old Age Security cheques had arrived. During this same trip, many of the women also paid all of their bills, for example telephone and hydro. Besides this monthly trip, none of the women had a routine in terms of going to the bank. All of the 14 women with independent mobility indicated that they went to the bank at other times during the month when they needed to and when they were out doing other trips. Both Brenda (RR/L, FM, F) and Yvonne (RR/L, FM, G) had banking services that came to

their apartment buildings monthly, and therefore did not need to go out into the community to complete this task.

Going to the hairdresser was a regular weekly outing for five of the women (2 independent mobility; 3 limited mobility). Two additional women with limited mobility also have their hair done weekly but are not required to go out into the community - one's hairdresser comes to her home, and another lives in an apartment building with a hairdresser on-site. Of the remaining 16 women, 14 of them go to the hairdresser regularly at 2-4 week intervals. Two others, both with limited mobility, do their own hair at home.

Only two of the women interviewed (1 independent mobility, 1 limited mobility) did not have a family doctor. As a result, these two women were the only ones who did not go out regularly to see a doctor. Of the remaining 21 women, six of them were unable to identify the frequency with which they visited their doctors, while nine others said that yearly check-ups were their routine. Two women with limited mobility see their doctors monthly, while three others (1 independent mobility, 2 limited mobility) go every two months. Another woman with limited mobility goes every six months (Table 6). All but two of these six women who see their doctors with some frequency described their health as fair. Those two who described their health as good were both over 80. Nine of the women marked their doctor's office, a clinic or some other health service²³ on their sketch maps.

²³ Health services include pharmacies, hospitals, chiropractors and dentists.

Table 6: Pattern of Doctor Visits, by Sampling Group

	No doctor	Yearly	Not Sure	1 month	2 months	6 months	Total
RR/I		4	1		1		6
RR/L	1	1	1	1		1	5
RP/I	1	4	2	1			8
RP/L			2		2		4
Total	2	9	6	2	3	1	23

Social, Recreational & Leisure Activities

Next to primary IADL tasks, the second most frequent type of outing in terms of micro-mobility are those outings that fulfil the women's needs for social, leisure or recreational activity. The places that women went for these activities and the frequency of these outings varied greatly, and ranged from almost daily outings for five women with independent mobility to outings once or twice per year for one of the women with limited mobility. The women with limited mobility went out much less for social activities than the women with independent mobility, and were more likely to invite friends or family to their homes instead of going out. A highly popular social outing that 11 of the 23 women talked about was going out for lunch with their friends or family.

The social, recreational and leisure sites marked on the sketch maps of the women were very diverse and included such places as homes of friends and family (10 maps), restaurants (5 maps), library (4 maps), and parks (3 maps). Only five women

(2 RP/I, 2 RR/I, 1 RR/L) in the entire sample did not mark at least one recreational, volunteer or leisure site, but each of these women spoke of doing leisure activities in the home such as knitting, doing paper tole, reading or doing genealogical research.

Volunteer Work

Although none of the women who participated in this study are currently working for a salary, 4 of the 14 independently mobile women are moving around in the city in order to pursue voluntary work. At the two extremes of volunteering are Louise (RP/I, B, E), who spends four days per week volunteering with five different groups, and Mary (RP/I, B, G), who volunteers three or four times a year to sell tickets at her seniors' centre. Of the other two women who talked of regular volunteering, one takes an older friend out grocery shopping weekly, and another volunteers with her craft club two to three days per week in various capacities. All of the four women who were actively engaged in volunteer work either marked their volunteer site on their maps, or alternatively, drew an arrow on it indicating the direction in which the site was located.

Many of the women talked about volunteering as something that they had done in the past, but have chosen to give up with age, regardless of their mobility status. None of the women with limited mobility were doing any volunteer work at the time of the interview, or anticipated doing any in the near future.

Social Obligation

The final type of micro-mobility is that which allows the women to fulfil what they perceive to be a social obligation. Although completed relatively infrequently

compared to the other outings just discussed, outings for social obligation were considered to be extremely important. Activities such as going to weddings, funerals and various family functions fall into this dimension of mobility, as does going to visit sick friends and relatives, and going to visit a grave site at the cemetery. All of the women spoke of attending weddings and funerals periodically.

Three women, all with independent mobility, spoke of going to visit friends in personal care homes on a regular basis. None of these women included the personal care homes in which they visited on their maps. Three other women (1 independent mobility, 2 limited mobility) visited family members in these facilities regularly. Both women with limited mobility included their family members' personal care home on their maps. Jane (RP/I, D, G) visits her husband's grave monthly.

Macro-Mobility

Mobility outside of the city perimeter was not a topic that was specifically addressed in this study, but the frequency with which it was mentioned by the women makes it noteworthy here. Sixteen of the 23 women interviewed regularly took trips out of the city, the province or the country. Only one of these women included an out-of-city site on her map (Lockport), but she lived close to the northern perimeter of the city. All of the trips that the women made outside of the perimeter fulfilled their needs for social, recreational or leisure activity.

For four of the sixteen women, the trips taken out of the city were to spend weekends with their children who lived in rural areas (2 independent mobility, 2

limited mobility). For all of these women, their children came to the city to pick them up, and then returned them home upon the conclusion of the visit.

Five of the women (4 independent mobility, 1 limited mobility) have summer cottages that are within a 3 hour drive of the city. They visit their cottages regularly, or alternatively, stay at them for the majority of the summer. In addition to having a cottage, one of these five women, plus one other woman in the sample, have non-cottage property outside of the city which they go and visit simply to get out of the city.

Two women with independent mobility, both of whom are bus users, enjoy taking afternoon drives out of the city with their friends. Teresa (RP/L, FM, Bd) enjoys similar trips in the company of her husband. Fay (RR/I, D, G) and her sister spend much of their summers camping in provincial and national parks in Manitoba as well as through Western Canada and the United States.

The largest scale (i.e., distance) of community mobility discussed during the interviews was travel outside of the country. Eight of the 23 women had taken an extended trip to at least one other country in the past two years. Three women with independent mobility travel to the United States yearly to visit family members, usually during the winter months. For Gertrude (RP/L, T, F) and her husband, this past winter was the first in many years that they had not lived in Florida. They chose not to go this time because their deteriorating health meant high insurance premiums. Five other women (4 independent mobility, 1 limited mobility) have taken extended and lengthy trips in recent years. In fact, after setting up an interview with one

woman, she called back to postpone it because she had the opportunity to take a 10-day Caribbean cruise. Another woman had just returned from a trip to England two weeks before I interviewed her.

NATURE OF PARTICIPANT'S MOBILITY: SUMMARY

Both the interview data and the cognitive maps showed that the nature of the women's mobility is diverse, and encompasses two distinct elements which reflect the size of the area through which they are travelling. The first element, the women's micro-mobility, encompasses four primary dimensions and includes trips done to complete necessary instrumental activities of daily living; to participate in social, recreational and leisure activities; to contribute skills voluntarily; as well as to fulfil social obligations.

The second element, or the women's macro-mobility, includes those trips which take them out of the city perimeter. All of these trips serve to fulfil social, recreational or leisure needs. These outings include Sunday drives, trips to visit family members, and holidays outside of the city and to other countries.

The two data sources, the interviews and the maps, gathered complementary information regarding the nature of the women's mobility, the first objective of the study. The maps provided a visual perspective on just how broad or how restricted an individual woman's mobility was and, in many cases, displayed the importance of routing and travel modes. In other words, the maps facilitated understanding the scope of mobility by providing a visual representation of the women's interview responses.

CHAPTER 6: MOBILITY INFLUENCERS

The second objective of this study was to identify and describe the range of factors which influence the community mobility of older women. During the design of the interview questions an intentional effort was made to ensure that both positive and negative influences on community mobility would be identified. All women were asked two questions with respect to mobility influencers: "What are some of the things that make it easy for you to get around?" and "What are some of the things that make it difficult for you to get around?" A series of probes²⁴ were used, when necessary, to ensure that women considered a full range of personal and structural factors. From both policy and practice perspectives, learning about both positive and negative influences is important. Positive influencers identify what factors need to be maintained or perhaps enhanced while negative influencers can mark potential service gaps.

Upon analysing the responses of the women it was found that influencers, regardless of whether they were positive or negative, fell into the same two broad areas as identified in the literature (Appendix 1). The first area included personal factors, for example, the ability to drive and living situation. The second area included structural factors. These factors fell into three sub-categories which included the physical environment, the service system environment and the socio-political environment. Physical environment factors included both modifiable (e.g., bus

²⁴ Refer to Appendix 8 - Interview Guide for the probes used.

design) as well as unmodifiable (e.g., weather) factors. The service system environment included the programs and services which are provided by public and private agencies, for example, handi-transit, tele-bus and volunteer drivers. In addition, the service system environment incorporated issues such as bus scheduling, bus routing, and the frequency of snow-clearing. The socio-political environment, initially conceptualized for this study as including the broader factors which have an impact on the development and maintenance of community mobility opportunities, such as the stereotypes of older people and government economic priorities were identified by some women but the frequency of these comments was low. As a result, socio-political issues will not be addressed directly in this chapter, but rather general comments will be made in the final chapter of the thesis.

Despite the global similarity between the factors identified in the literature (Appendix 1) and the factors identified by the women in this study, it appears that the participants identified a larger range of individual influencing factors in both of these areas. This finding may be a reflection of the use of open-ended questions during the interview situation. The remainder of this chapter will identify and describe the factors that the women in this study felt were influencing their community mobility.

PERSONAL FACTORS INFLUENCING PARTICIPANT'S COMMUNITY MOBILITY

Previous researchers have identified a range of personal factors that influence community mobility such as age, gender, health, income, education, ability to drive and living situation (Appendix 1). Although some of these factors were identified by

the women in the study, others were not. The women also identified additional personal factors that were not discussed in the articles reviewed for this study. The factors that they identified, and the comments they made, are summarized below.

Health

Poor health and physical frailty is frequently identified in the literature as having a negative influence on community mobility (Cutler, 1972; Eisenhandler, 1990; Gant & Smith, 1983; Grant & Rice, 1983; Golant 1984a, 1984b; Iutcovich & Iutcovich, 1988; McGhee, 1983; McLaren & Fleming, 1985). Similarly, the women in this study who identified health tended to identify it as something that made it difficult for them to get around:

I can't walk very far. Poor circulation in my legs and in my feet. - Margaret (RP/L, FM, F)

My health. I know like myself I feel like I have a hard time walking. I have to use medication. - Teresa (RP/L, FM, Bd)

My arthritis is a problem for driving. My whole right side, my shoulder, my knee. Even the brakes. It is hard to turn on the ignition, it is hard to shoulder check. There's the traffic, the vision, not being able to shift the gears. My knee is so bad I have trouble with the brake. - Gertrude (RP/L, T, F)

For one thing, I have cataracts. I don't have a problem driving in areas that I am familiar with, but when, if I have to drive in areas that I am unfamiliar with its rather difficult. I don't see as well, and with cataracts all of the lights seem to have a sort of a halo or a rainbow around them, and then the lights radiate in spokes out from it, and it can be very confusing and hard to see at times. - Stella (RP/I, D, F)

In addition, it can be noted that all of the women who identified health as having a negative influence on their community mobility perceived their health as

being fair or bad. This finding is also consistent with previous authors such as McGhee (1983).

Only one woman with independent community mobility identified her health as contributing to the ease of her mobility:

Well, I think that the reason that it is easy for me to get around is that I have no disabilities. I can still run for the bus. - Louise (RP/I, B, E)

Other women with independent community mobility agreed that their good health probably contributed to the ease with which they moved around the city, but this agreement only occurred after this factor was suggested through probing. As a result, it would appear that health is primarily viewed as influencing community mobility when it is placing restrictions or physical challenges on an older woman's ability to get where she wants to go.

Availability of Personal Transportation:

A primary factor identified in the literature as influencing an older person's community mobility is the availability of personal transportation, that is, their ability to drive (Doyle, 1988; Eisenhandler, 1990; Gant & Smith, 1983; Grant & Rice, 1983; Golant, 1984a, 1984b; Iutcovich & Iutcovich, 1988; McGhee, 1983; Smith & Hiltner, 1988). When I asked each woman to identify things that made it easy for her to move around in the city, her initial response was closely tied to her mode of transportation. All of the drivers identified that their car made it easy for them to get around, while the women who had a spouse or family member who provided rides usually identified the presence and availability of this other person as well as the vehicle:

It's my own transportation....I can go when I like, I can come when I like. - Fay (RR/I, D, G)

Our car makes it easy - Teresa (RP/L, FM, Bd)

Well, having my husband makes it easy I guess. - Wilma (RR/L, FM, E)

Although women who did not drive did not identify this status as a negative influence on their community mobility, those women who had given up their vehicles for health or economic reasons did identify that a lack of personal transportation restricted their community mobility particularly in the evenings. This finding is similar to that of Golant (1984a).

Income

Previous studies have suggested that income influences community mobility and that people with lower incomes have greater needs for transportation (Iutovich & Iutovich, 1988; McGhee, 1983). Yet, findings are inconsistent. Among the women interviewed, only three of them identified income as an influencing factor in their community mobility.

I used to go to bingo cause then I could afford it, it was different. I'd go now if I had the money. I can get there, I just can't afford to go. - Teresa (RP/L, FM, Bd)

Both Teresa (RP/L, FM, Bd) and Tannis (RR/I, B, F) were cognizant of the financial limitations they had to moving around in the city, and both of them identified that their current income was meeting their needs with difficulty. In contrast was Catherine (RR/L, FM, G) who stated that her income met her needs very well. She identified

that her income provided her with additional freedoms, for example, being able to afford a taxi to get around if she wanted to go out.

Attitudes and Motivation:

In the summary of the personal factors section of the literature review it was noted that only Yeatts et al. (1992) identified motivation as a factor which influenced community mobility. In contrast, a number of the women in this study identified personal attitudes and motivation as factors that influenced their community mobility, sometimes in a positive way, other times in a negative way.

When asked what factors made it difficult for her to get around, Wilma (RR/L, FM, E) noted that her own unwillingness to go out alone limited her community mobility. Similarly, Brenda (RR/L, FM, F) recognized that her own unwillingness to accept offers of rides, and her unwillingness to ask for help, contributed to her difficulties in getting out of her apartment building. These two women offer a contrast to Connie (RP/I, B, E) who felt that it was easy for her to get around because of:

The fact that I want to get around. I feel quite definitely that if you don't keep going you stop. I try to keep interested in everything.

As a result, attitudes and motivation can positively influence community mobility as well as limit it.

Knowledge:

Unlike the personal factors that have already been identified in this chapter, personal knowledge was not identified in the literature as a factor which influences an older person's community mobility. Yet, it was one of the most consistently identified

positive influencers described by the women I interviewed, particularly those women who had independent mobility. Personal knowledge of the city, including the streets and bus routes, enabled them to get where they wanted to go. Sara (RR/I, B, F) commented that getting around by bus was relatively easy for her because:

I know the city pretty well dear because when I worked for [agency name] I didn't have a car, and I had to travel by bus. I know the buses too.

This knowledge of the city was viewed as facilitating mobility by a number of other women, particularly those who drive. Both of these quotes are in response to the question: "What are some of the things that make it easy for you to get around?":

Well, I guess I know the city so well because I've lived here so long that I can find my way anywhere I want to go, if that's an answer. - Rose (RR/I, D, G)

I know my way around and it's easier I guess just to go where you know just exactly where you're going, and where you're parking. - Linda (RP/I, D, E)

Personal knowledge was never identified as a negative influence on community mobility by any of the women in the study. It was never mentioned, either positively or negatively, by women with limited mobility.

Time:

Similar to personal knowledge, time was identified as a positive influence on community mobility by some of the women who participated in this study; yet, it was not mentioned in the literature. Having lots of time available to them allowed the women in the study to postpone their outings in case of bad weather or other extenuating circumstances. They did not have to rush to get somewhere, and if a trip

took longer than expected, it did not really matter. The comments of Fay (RR/I, D, G) reflect the role that having time has in facilitating her mobility:

And um, being retired, I don't have to go plough around in the snow. I can sit and wait until the ploughs come along, that's a little different now.

PERSONAL FACTORS: SUMMARY

In summary, three of the personal factors that the participants identified as influencing their community mobility are supported by existing literature. These factors include health, availability of personal transportation and income. Three additional factors identified by the women, but not in the literature reviewed for this study, include attitudes and motivation, knowledge and time. The identification of these additional factors may be due to the use of open-ended questions rather than fixed response categories. Nevertheless, knowing these three factors offers additional avenues to explore on a practice level when trying to facilitate an older person's community mobility.

STRUCTURAL FACTORS INFLUENCING PARTICIPANT'S COMMUNITY MOBILITY

Previous researchers have identified a range of structural factors that influence community mobility of older people. These factors have included both physical environment (e.g., housing location and weather) and service system factors (e.g., bus design and scheduling) (Appendix 1). Both types of structural factors were identified by the women in this study, but they tended to offer more detailed information regarding service system factors than the literature does particularly with respect to the

transit system. While the literature tends to focus only on bus scheduling (Gant & Smith, 1983; Paaswell et al., 1982; Patterson, 1985), the women identified factors such as the approach of the bus driver and the design of the back door. A summary of both types of structural factors, as identified by the women, are provided below.

Physical Environment Factors:

The literature identifies housing location, time of day, weather and traffic as the primary physical environment factors that influence an older person's community mobility (Cutler, 1972; Cutler & Coward, 1992; Eisenhandler, 1990; Gant & Smith, 1983; Grant & Rice, 1983; Golant, 1984a, 1984b; Iutovich & Iutovich, 1988; Paaswell et al., 1982). Although the women identified both time of day and weather as factors, both of these are addressed in the case analyses found in Chapter 7 and therefore they will not be specifically addressed here.

Unlike the literature which identifies housing location as one of the most important physical environment factors, the women in this study focused on traffic. In all cases, traffic was viewed as a negative influence on community mobility. Traffic speed and volume created anxiety for the drivers as well as those who need to cross streets to catch buses, or in the case of Margaret (RP/L, FM, F), to get to her husband's personal care home for a visit. A sampling of the women's comments regarding traffic include:

Well, as I mentioned before, getting around by the bus is no problem but the city traffic is a problem for me. Now I've driven in rush hour in Houston and had no problem with it, but these Winnipeg drivers are a whole 'nother breed of cat. - Stella (RP/I, D, F)

I don't feel comfortable driving downtown in traffic anymore. I could do it, but if I don't have to do it, I don't want to do it. - Jane (RP/I, D, G)

Oh, sometimes you can swear! The drivers just don't care - they don't stop to let you cross the street, even when the wind is just blowing you over! You could shake your fist at them! - Freda (RR/I, B, G)

Um, I don't know. Myself if I have to drive, I find the traffic, I have to be alert because people speed. Traffic, people. People have changed. There are people out there, they seem to be in such a hurry, and they seem to be so angry - Teresa (RP/L, FM, Bd)

The traffic makes it difficult. When I first came out here and thought that I would walk across to the home, I started out one night and got to the intersection and I just froze. I thought that I would never get across there, so I came back. But then I thought that this is crazy, I got to do that. So I tried again, and got both ways safely. You get to the centre [median] and then you wait there for the traffic to clear from the east. I can make it across if I wait until there is no traffic as far as I can see. I don't take any chances. They seem to come in bunches because of the lights - Margaret (RP/L, FM, F)

Well the traffic. After I sat on the corner and waited for the traffic to cross one morning I felt like phoning my councillor. I didn't, but I felt like it - Connie (RP/I, B, E)

From these comments it can be seen that traffic causes a range of difficulties when it comes to older women's community mobility. Having to cope with traffic is viewed as frustrating, anxiety-provoking, time-consuming and dangerous. Of particular interest is that the problem of traffic was not limited to any particular mode of transportation, but rather was experienced by women who walked, took the bus or drove. Additional physical environment factors, both positive and negative, that the women identified as influencing their community mobility included:

- proximity to a bus stop (housing location):

Living close to a bus stop makes getting around easy - Freda (RR/I, B, G)

It's good to be so close to a bus stop - Sara (RR/I, B, F)

- sidewalk ramping:

I think one thing that is awfully good is the way that they made the sidewalks like this [indicates slope using her hand] so that people who are disabled can get up. I think that that has been terrific. - Diane (RR/I, D, G)

- small size of house numbers and street signs

I tell you one thing that I have often thought of writing the Mayor about, I don't know who'd be responsible for it, getting numbers on the houses that you can see. It's bad enough when you're walking and you can't, but when you're trying to drive and find a place. There are lots of places that have no numbers at all, or they are not very big and uh, course they can't make a rule about it, but it would make it a lot easier to get around - Diane (RR/I, D, G)

Another thing I find difficult about travelling, especially after night up here, the street signs are not always that visible - Stella (RP/I, D, F)

- curb heights

Well you see, not driving a car myself I'm not really terribly sensitive to the problems that motorists have. But curb heights are something that on occasion have delivered a problem. - Catherine (RR/L, FM, G)

- wide streets

The business of having to cross, what is it, Memorial? That's something else. Three of us went there to go for lunch at the Art Gallery, and the three of us agreed that the business of going down the stairs at the Bay to get to the street level, and then crossing was not something that we were

willing to repeat. It's too far. It's terribly wide. -
Catherine (RR/L, FM, G)

Summary of Physical Environment Factors:

The most frequently identified physical environment factor that was seen to influence the women's community mobility was traffic. This finding is inconsistent with the findings of previous studies, yet what is particularly interesting is that the only other study to identify traffic as an issue (Eisenhandler, 1990) was also qualitative in nature. Overall, the physical environment factors that were identified by the women related in some way, either positively or negatively, to their physical comfort or their need to expend physical energy. Negative factors created additional physical demands on them personally, and often related to urban engineering (wide streets, curb heights, traffic patterns).

Service system factors:

In attempting to divide the structural factors identified by the women into the physical environment or service system, a number of them were found to have elements of both categories. Examples include milieu of the bus, the physical demands created by bus design, the bus drivers themselves and the approach these drivers take to the people riding the bus. In cases where these combined factors related to the use of the transit system, they are being discussed under the heading of service system factors. In addition, a number of factors more clearly reflected service system factors, for example, bus scheduling, bus routing and handi-transit. Both of

these factors, those that combine service system and physical environment factors as well as those that represent service system factors only are presented below:

Bus Drivers:

The bus drivers were seen to be able to create a friendly atmosphere for travelling, or alternatively, to make getting around in the city more difficult than it needed to be. The variation of opinions on the friendliness and helpfulness of the transit drivers can be seen in this series of comments:

The bus drivers are very polite on the bus. That is very good - Sally (RP/I, B, F)

The drivers are always so polite and nice. It's really a pleasure to ride the bus - Stella (RP/I, D, F)

I must say it's really, certainly, the city is really blessed with nice drivers. I really think that - Louise (RP/I, B, E)

They're [drivers] so rough and by the time you go sit down you flop on the floor if you don't hold onto something - Fay (RR/I, D, G)

Well, you have to be careful about how you get off. If you're near your stop, and they [drivers] seem to jerk to a stop, boy, you better hang on to something, you know. It's just like a land-slide sometimes - Mary (RP/I, B, G)

Their [bus driver's] actions, you know, in front of seniors. They don't care. I have often got off the bus and helped some poor person up the steps. Now what is wrong with the driver? He could do that. I think that lots of people go on the bus with canes and they should be helped on the bus, but they are never helped - Sara (RR/I, B, F)

Although the drivers contribute to the physical environment in which to travel, they are ultimately part of a larger service system. As a result, this factor is seen to be a combination of the two types of structural factors as are bus steps and exits.

Bus Steps and Exits:

The height of the bus steps were seen as both positive and negative. The older model buses have higher steps and are very difficult for many of the women to climb:

I tell you what is hard! The steps on the bus are so high! You know, they are that high [motions with her hand]. And you know, a lot of them [drivers] don't come to the curb dear, they stop there and here your are here, and that's hard. A lot of them don't come close enough to the curb - Sara (RR/I, B, F)

Yet, these same women identified that the transit system is making an effort to purchase more low step buses and this decision was viewed very positively.

I like the lower buses. We have a little bus, a smaller bus that comes on the weekends and when it opens the door, the step goes right level with the sidewalk. Now that would be the best thing to have on these 40 new buses in the city. I like the new low buses. I like them very much - Sara (RR/I, B, F)

In total, eight women commented positively on the new low step buses and how they decrease the physical demands of taking the bus. In addition to the front steps of the bus, some of the women commented about the difficulties they encounter when trying to exit out of the back door of the bus. Like the step heights, the back door of the bus is a design feature which creates additional physical demands:

And another thing, people are very foolish if they use the back door to go out if you're older. Because the back door you have to push the thing to get out and you can't hang on if you've got something in your arms. The thing swings back and you're, there's nothing really to drop down to the ground level, the level of the ground - Louise (RP/I, B, E)

Bus Schedules and Scheduling:

In terms of bus schedules, three separate services were identified as influencing their community mobility by the women interviewed. These services included the

printed bus schedules, the tele-bus program, and transit's communication with its ridership regarding route and schedule changes. The printed schedules were viewed very positively and as making it easier to move around in the city:

I've got a schedule, so I know now what time the bus comes, or I phone tele-bus - Sara (RR/I, B, F)

For the other women who used the bus as their primary mode of transportation, five out of six of them found that having the printed schedules and using the tele-bus system made it easy to get around the city. Examples of their comments include:

Having a schedule makes it easy - Freda (RR/I, B, G))

It is very good, the buses, and then you can phone the transit and they tell you when the bus comes. It is very, very handy - Sally (RP/I, B, F)

Well, knowing exactly when the buses leave makes it easy, and using that phone as to what time, like when I'm going some place new - Louise (RP/I, B, E)

These two services of the Winnipeg Transit System, the printed schedules and the tele-bus system, allow the women using the bus to plan their trips, particularly when they are required to transfer, and to minimize their waiting time at the bus stop. A number of the women were adamant about the importance of the printed schedules, and felt strongly that they were a necessary component to being able to use the bus easily:

I know the buses, but as I say, they're changing quite a bit so you have to have a bus schedule in order to be able to know exactly where you are going. - Sara (RR/I, B, F)

This same woman also noted that it is very easy to get the printed schedules:

The bus drivers have them, or you phone. The bus depot is right over here, and they will drop me off one.

Tannis (RR/I, B, F) was the only woman in the group of regular bus riders who did not use the schedules or the tele-bus to facilitate her mobility. Tannis lives off Pembina Highway and finds that the high frequency of the buses travelling in her area means that she rarely needs to use these transit services.

Even Jane (RP/I, D, G), who uses the bus as a secondary means of travel, identified the tele-bus system as a factor that made it easy for her to move around in the city:

What I do is just phone to find out when the buses are coming and what time, and I just judge accordingly and go out there and catch it so I don't have to wait half an hour. I might have to wait two or three minutes, five minutes at the most. That makes it easy.

In addition to having the printed schedules and the tele-bus system, it was also noted by Sara (RR/I, B, F) and Louise (RP/I, B, E) that Winnipeg Transit tries its best to notify riders of route changes and detours that may effect their movement through the city. This notification also positively influences the ease with which they travel through the city. Louise explained:

They [transit] have supplied you with proper information as to how to get around with the new buses. Like now there is something new that is coming in on the corridor on Graham Avenue. So we all had to learn that no, the bus doesn't stop right in front of the Bay, you must get off across the street, you know. You can't catch the bus where I normally caught it, I have to walk across the street to get it. This is what I mean, you're well posted. There's nothing that they're hiding from you. It's well advertised. They do everything that they can, if you telephone, or ask for help.

While all of these comments reflect positively on aspects of bus scheduling, some of the same women did identify scheduling problems that negatively influenced their community mobility. Like most of the bus users, Sara (RR/I, B, F) identified that she is generally happy with her mode of travel, yet she did express concerns about transit scheduling when asked about what made it difficult for her to get around. She noted that on the weekends and during weekday afternoons the buses come less frequently, and at times, this was problematic. She said:

The bus service could be better, more often. Mornings are good, but the afternoons could be better. The service on weekends is very poor, it should be better. On the weekends they only travel about every 40 or 45 minutes, and it is longer now with the winter months coming.

She also noted:

Using the bus, sometimes you have to wait 10 or 15 minutes, to a half an hour for the bus. Especially in the winter-time. I phoned and asked if it was possible, if we could have a bus shack, cause you get the four winds at that corner. But they said that they had no place to put one.

Bus Shelters:

Although Sara's experience with the lack of a bus shelter in combination with infrequent schedules is negative, Sally's is not. In her case, the combination of a shelter and good scheduling make using the bus a nice experience:

They have those shelters that you can stay behind so the wind doesn't blow on you. In the winter-time it is cold, I can wait there until the bus comes, and then the buses are coming, and they are warm. No, I think that it is very nice compared to other countries - Sally (RP/I, B, F)

Handi-transit:

At the other extreme of personal mobility, Brenda (RR/L, FM, F) commented that the procedure for booking handi-transit contributed to her difficulties in moving around in the city. As will be noted in the case study based on Brenda, she no longer uses the service because of a miscommunication with a booking clerk in the spring of 1994. Brenda felt that the service was inconvenient and cumbersome because of the way that the booking procedure is set up. One must call and book a ride two days in advance, and then call back to confirm the trip a day in advance. Even with this procedure, mistakes such as that experienced by Brenda in the spring of 1994 mean that rides are not guaranteed.

In contrast, Yvonne (RR/L, FM, G), another handi-transit user, felt that the service provided her with some additional freedoms:

That little bus²⁵, handi-transit and my daughter's car make it easy. I don't think that I would get around otherwise.

Additional Transit Factors:

Besides the schedules, the tele-bus numbers and transit's communication with their ridership, a range of other service system factors were identified by the women as influencing their community mobility. They were identified by both bus riders as well as by women who used the transit services occasionally. They include:

²⁵ Here Yvonne is referring to the bus that her apartment building provides to its tenants.

- request bus stops:

If a senior wants to get off after dark, between bus stops, and I know that they do it on Sargent and they do it for my sister. He'll stop here rather than go to the end. And he'll let them out and he'll stand there until they go in the side door and unlock the door and go in. I think that that's awfully nice. According to the rules they're allowed to do that - Fay (RR/I, D, G)

- cost of transit:

I think that because the tickets you get, you get a reduction in dollars, that is very good - Sally (RP/I, B, F)

I find it very easy to use [transit]. Well, for one thing, it is not expensive - Stella (RP/I, D, F)

- routing of transit:

For another thing, I can take the bus and go just about to the door of where I want to go, so, you know, it is easy and very convenient - Stella (RP/I, D, F)

Just the fact that the transits run very good from here makes it easy, and um, and mostly places I go to I can get there from here - Tannis (RR/I, B, F)

You've got the best two transportation systems right here in Winnipeg between Ellice and Sargent. You can get on here and go all the way to St. Mary's or St. Vital on the Ellice. You can get on the Sargent and it takes you heaven knows where downtown and all around and takes you back here and out to the airport. You have no other bus service like that anywhere in town - Fay (RR/I, D, G).

- lack of rules for bus riders

I hate to ride the buses because they are dirty, you know, years ago they used to clean them, you got on the bus in the morning and that bus was spotless. Today I think that the buses go a couple of weeks before they ever get their windows washed or their floors swept. I don't think that it's their fault, I think that they have bus passengers now that are litter prone, they just

drop everything. These youngsters they come in from high school or something and they chew on the bus and just drop them all over the place. So you can't really blame the bus companies or the bus drivers for it, but I think that they should have stricter rules - Fay (RR/I, D, G)

- the distance between bus transfer points

My biggest complaint about the transit is you get within five inches of the bus that you're transferring on and he's gone. And then you wait for another 20 minutes for the bus that you're going to get. And when you're going to get off your bus, you're having to walk at least, at least half a city block to get the next connection...The distance between the transfers is too great - Louise (RP/I, B, E)

Street System:

Stella (RP/I, D, F) raised the issue of Winnipeg's poorly organized street system when asked about what made it difficult for her to get around in the city.

Rather than identifying the street system as a difficulty, Stella noted that it was inconvenient. In her response to the question, Stella reflected on her experiences of living and driving in the United States:

For one thing, they [City of Winnipeg] don't have the freeways and the street systems that make it more convenient. In the larger cities in the States, you get on their freeways there and they have big overhead signs - exit to so-and-so, so many miles, or you know.

Stella expanded on this comment at various points in our interview, and noted that because of the layout of the streets in Winnipeg, and the lack of a freeway system, traffic becomes easily clogged and slowed, particularly during rush hours. Although she felt that little could be done about this situation, Stella did feel that the poorly

organized street system was the major hassle that she encountered in her travels through the city.

Taxis:

Only one woman in the group commented on the taxi services when asked about factors that influenced her mobility. Because Margaret (RP/L, FM, F) must cross a major four-lane street to go to visit her husband, she often calls a taxi since the crossing can be quite treacherous. She commented on how the unwillingness of many taxi drivers to take short trips influences her community mobility:

I phoned the taxi company and asked what their policy was on short trips. She said that they really didn't have a policy, but some drivers don't mind short trips and others don't like them. But she said that when you call, it wouldn't hurt to say that hey, this is a short trip. But then maybe some guy will say I don't want it. They don't like short trips. It is frustrating - Margaret (RP/L, FM, F)

Parking:

Four of the six women who drove commented on the inconvenient and expensive parking downtown and how these factors influenced their choices about where they shopped:

I seldom go downtown and the main reason is you stay for a couple of hours and its \$5 parking - Fay (RR/I, D, G)

I couldn't be bothered to get into the rat-race down there [downtown]. The parking and everything is just terrible. And expensive too - Linda (RP/I, D, E)

I understand that their parking fee has come down some in the last few years. For a while their parking fees at the [downtown] library were just prohibitive - Stella (RP/I, D, F)

Summary of Service System Factors:

Whereas the literature that was reviewed for this study focuses on a limited number of service system factors that influence community mobility (Appendix 1), it can be seen through the women's narratives that a wide range does exist. It is interesting to note that very few of the women with limited mobility identified service system factors that influenced their community mobility either positively or negatively. The women who drove tended to relate their comments to the transit system, regardless of how much they used it, rather than to anything that directly influenced them *as a driver*.

During the interviews it was of particular interest to note that each of the negative service system factors are presented by the women as daily hassles, inconveniences or frustrations as opposed to limitations or impediments. In some ways, this deflection represents the flexibility observed in many of the women, and is a reflection of the way in which they have adapted to changes in their community mobility resources over time²⁶.

SUMMARY

Although the women in this study identified many of the same mobility influencers that were discussed in the literature, they also identified numerous others. In terms of personal factors, the women in the study identified knowledge as an important factor in their ability to move around in the city, as well as their motivation

²⁶ Refer to Brenda's case study (Chapter 7) and the theme on adaptation (page 171).

to do so. In addition, they recognized that their age and retirement status have afforded them additional time to get around, or alternatively, the freedom to wait until conditions are better for travel.

Within the category of structural factors, the women in this study identified both physical environment and service system factors that influenced their community mobility. Although weather and time of day were not discussed here, they were identified by the women. Therefore, the women identified the same factors identified in the literature. Unlike the literature through, the women identified a much broader range of service system factors including the bus drivers, handi-transit and street systems.

Through the findings reported in this chapter it can be seen that the community mobility of the study participants is very complex and that numerous factors interact to facilitate or limit their ability to move freely around the city.

CHAPTER 7: COMMUNITY MOBILITY THEMES AND STORIES

This chapter presents three integrated case studies which use stories of Louise, Brenda and Jane to discuss the six themes that dominated the interview data from this study. The themes that will be discussed include convenience, risk and personal organization (Louise); driving, burden and adaptation (Brenda); and weather and social obligation (Jane). Although these themes are present in all of the other women's stories to some extent, these three women were chosen for the cases because they "...provide insight into an issue...because this helps us to pursue the external interest [the theme]" (Stake, 1994, p.237).

As a result, the remainder of this chapter is divided into three major sections, one for each of the three cases. The cases themselves are divided into an introduction to the woman on whom the case is based and then each of the individual themes. At the end of each theme a summary is provided regarding the meaning of community mobility for that individual woman. Throughout the discussion of each of the themes, the narratives of other women are drawn into the discussion to provide elaboration of ideas and richer understanding.

*CASE 1:
EXPLORING AND UNDERSTANDING CONVENIENCE,
RISK AND PERSONAL ORGANIZATION - THE STORIES OF LOUISE*

Louise is a 75 year old single woman whose community mobility narrative highlights the themes of convenience, risk perception and personal organization, and provides insight into how these factors interact and influence community mobility in general. At the beginning of each theme, the other women who contribute to understanding it will be introduced.

Together, the women's stories suggest that the concept of convenience is not always synonymous with geographical proximity, and that convenience plays an important role in community mobility choices and routines. Their stories also show how risk perception influences community mobility and requires the development of specific and varied strategies in order for them to continue to move throughout the city. The importance of the women's ability to plan and organize their daily and weekly outings is shown as a key factor and important influence on their continued community mobility.

Introducing Louise:

Louise is a thin woman of average height who gives off an aura of calm assurance and control. She lives in a small bungalow-style house which is located on a large piece of property in East Kildonan. Louise has lived in the same house for the past 70 years, and can remember a time when the neighbourhood was mostly bush. The area is now fully residential, dotted with boarded up corner stores which speak of times before large malls and super markets. A local strip mall with a bank, library,

grocery store and pharmacy (with a full service postal outlet) serves the area, but it is over a kilometre from Louise's home. The bus stop at the end of her street is her primary link to the city, the services she uses on a regular basis, her friends and her volunteer activities.

Louise speaks fondly of her home and the area in which she lives:

I can't remember being anywhere else...the house has been a house that has been a happy, productive house. It's been a house where there's been all of the Brownies and the Cubs running from one end to another. It's been, and I like my neighbours. They're good. There's a solid core of neighbours.

Louise's connection to her neighbourhood was reinforced for me as she drew her map at the conclusion of our interview. She carefully drew her street, her house, and then the houses of six of her neighbours. She named each of her neighbours as she drew their homes, and commented "I've lived here so long, I know their grandchildren."

Louise is an intelligent and articulate woman who reads an average of five books a week, has travelled extensively through Europe, and is active in her community through a number of volunteer efforts. Although she just missed completing her general arts degree at University, she did study music and piano for two years at a College of Music. Louise maintains her involvement in the music world through her symphony season tickets.

Louise worked outside of her home for 35 years in a job that she described as clerical. She currently finds her income and assets are adequate for satisfying her needs as well as allowing her to go out for meals with friends, go to the theatre and

symphony, attend Jets games and contribute to the Winnipeg Harvest on a regular basis. Louise describes her health as excellent and has not had any hospitalizations in the past year.

Although at one point Louise tried to become a driver, she ultimately is, and considers herself to be a non-driver:

...it's the only thing that I ever gave up on. See, I made a very big error, I went to take lessons in class, and I should have never done that. I should have taken private lessons. But I sure can park! And I can drive a tractor, and I can do that on the farm, but not on the highway.

As a result, Louise's primary mode of transportation within the city is by bus. For certain outings, she is able to get a ride with a friend. She rarely uses a cab, and these occasions are limited to evening travel when she is unable to go with other people.

Louise's weekly routine revolves around her volunteer work and visiting friends who reside in personal care homes. Her activities regularly take her into Crescentwood, St. Norbert, the area around the Health Sciences Centre as well as elsewhere in East Kildonan. Saturdays are currently the only day that she regularly stays at home:

that's when I do most of my housework and stuff...for the rest of the week, you catch me if you can.

Louise uses the bus to travel to each of the three personal care homes in which she visits and cares for friends. One of these trips, done every other week, takes her one hour and 50 minutes each way. She also uses the bus to do her banking, the majority of her grocery shopping and to visit the downtown library on a weekly basis.

Louise's map reflects the importance of the bus in her life and the range of her travels in the city as a whole. She clearly marked the bus stops on her map as well as the major transfer points in the downtown area which lead her to other parts of the city. She even included the routing which her primary bus takes by writing on her map "Talbot Ave - continues to Higgins and Main - via Princess."

Three other regular weekly outings for Louise include volunteering for a non-profit health charity, attending church and volunteering to clean another church with three of her girlfriends. For each of these three outings, Louise is picked up by her friend since the two of them participate in these activities together. Their Sunday outing to church is generally followed by a trek out of the city:

Sundays are our travelling day...Well, we take off after church...and uh, we go, like say last week well, no, last week was Thanksgiving so we missed that. But the week before we went to Cypress Hills so we shouldn't lose the beauty of the changing of the leaves and we do maybe up through the Interlake area, or maybe down to Morden or to Arnes or Riverton, or through Emerson. And then you stand and make faces at the people who are logged up waiting to get through at the border!...Every Sunday, this is something we promised ourselves we would have something to do.

This same friend also assists Louise by providing a ride to the grocery store when she needs "heavy things like detergents, and bleaches, and things that weigh heavy." It is in Louise's explanation of how she does the majority of her grocery shopping that a differentiation between convenience and geographical proximity emerges, and the relevance of this differentiation for her community mobility.

I asked Louise where she did her shopping, and expected that she would tell me she went to the local strip mall since the bus that stopped at the end of her street went up to the mall. Much to my surprise she responded:

When I go grocery shopping I sort of blend it in with one of the visits to the nursing homes because I use Eaton's (downtown) quite often...Otherwise I do my own shopping and I find that Polo Park is the easiest for me to go to. Now it's a tremendous distance I know but I'm taking into effect the walking. Now if I go over here to (the strip mall) I have a very long walk carrying my groceries from the grocery shop right down the entire strip to the bus stop. That's quite a way. Now it's impossible to go over to the Safeway on Henderson Highway because I have to go down to the City Hall and change and come back again... And it's much easier, I know the distance is greater to go over to Polo Park, but I do not have a very great distance to carry my groceries because I get off the bus at Eaton's (downtown), turn the corner and get on my bus. Then I just have to walk from the top of the street down to here with it. That's very close. So I'm much better off doing that. I've experimented around but, you know.

What superficially appears to be a complex grocery acquisition strategy, upon closer scrutiny, is ultimately energy conserving for Louise. Rather than using the physical energy to walk and carry her purchases to the bus stop that the use of local store would require, she chooses to employ distant resources located on a convenient, energy-conserving acquisition route. What is significant about Louise's strategy is how it differentiates convenience from geographical proximity, and therefore does not clearly support the reports in the literature of the importance of local, neighbourhood services to older people (Cutler, 1972; Cutler & Coward, 1992; Gant & Smith, 1983; Grant & Rice, 1983; Iutcovich & Iutcovich, 1988; Paaswell et al., 1982).

For Louise what is more important than the geographical proximity of the services is the convenience of them, played out in the way that the bus stops and

transfer points are organized and located, therefore lessening her need to expend physical energy for grocery shopping. Her grocery acquisition strategy is actually simple, logical and demonstrates a highly refined mechanism that permits her to complete the majority of her shopping independently. This theme is further supported by her use of the downtown library, banks and pharmacies versus those found in the strip mall. For all of these trips and the instrumental activities of daily living they entail, it is more convenient and easy for Louise to use services on her travel routes than to use those that are local.

Theme: Convenience:

Louise is not alone in this approach to gathering her necessary supplies and in completing her instrumental activities of daily living. Nine of the 23 women who participated in the study spoke of the importance of convenience for their community mobility. The stories of six other women show how they actively seek convenience rather than geographical proximity in the resources they use. These women include Freda, Fay, Gertrude, Linda, Stella, and Jane. Please refer to Appendix 12 for personal details on each of these women.

Although Freda (RR/I, B, G) lives two blocks west of a major commercial area which includes a Safeway store, a bank, a pharmacy and a postal outlet, she chooses to use resources that are located on the bus routes which she regularly uses. Like Louise, Freda finds that the way in which the bus stops and transfers are organized make it easier and more convenient for her to use the downtown area as well as Polo Park. These areas are 4.5 and 7.5 kilometres away from her home, respectively. Polo Park is

a major service centre for Freda because she is there weekly to go bowling, and although she did not permit me to tape record our interview, my fieldnotes recorded three separate statements about what she said about using services there:

When I'm at Polo Park weekly, I pick up small things at the Safeway.

I usually pay my bills downtown, and my phone at Polo Park.

It's easy because I'm there.

The only time that Freda uses the Safeway down the street from her home is for the major shopping trips that she and her sister do together once every three weeks or so. For this trip, the two sisters walk and take a small grocery cart with them for bringing things back. As far as Freda is concerned, it is a poor use of time and energy to walk to this store to pick up small items at other times during the month since she is at Polo Park or downtown so often.

Fay (RR/I, D, G) also has a number of resources within walking distance from her house, but rather than using them, she favours the use of malls:

I do most of my shopping in the malls, Polo Park or St. Vital or Unicity. The parking is so good. You can park and go and shop by the hour from here to there to there to there. You don't have to worry or pay \$5 to have a car sit there doing nothing.

For Fay, convenience of resources means access to free and ample parking as well as access to numerous goods and services in one location. Fay is not alone in her thinking. Malls are popular with most of the women interviewed because these sites provide virtually all goods and services in one relatively confined area. Although Fay does not use the bus, she noted that they come and go frequently from mall entrances,

and benches are available for those who wish or need to sit and rest while they shop.

Gertrude (RP/L, T, F), who uses Garden City Mall and the surrounding area exclusively even though other resources are available closer to her home, explained at two different points in the interview:

...at the mall I can do everything...the Manitoba Telephone has an office here in the mall so I can pay that. Shopper's Drug is in the mall so we go there. Sears, Eaton's, anything we need.

Everything that we could want is in the mall.

The primary difference between which locations (i.e., suburban mall versus downtown area) are used by the women I interviewed appears to be associated with their mode of transportation. The women whom I interviewed that used their car as their exclusive mode of travel rarely used the downtown area because of the inconvenience and cost of parking. Fay (RR/I, D, G) commented:

I seldom ever go downtown and the main reason is you stay for a couple of hours and it's \$5 parking. I go downtown only to see my dentist and uh, a few things like that.

Linda (RP/I, D, E) agrees:

I couldn't be bothered to get into the rat-race down there [downtown]. The parking and everything is just terrible. And expensive too.

Two other independently mobile women who drive, Jane (RP/I, D, G) and Stella (RP/I, D, F), also find the traffic volume problematic and the parking fees prohibitive in the downtown area, but because of a commitment to participate in activities in the area, they choose to change their mode of travel and use the bus instead. This strategy allows them to improve the convenience of the downtown area

by avoiding the parking cost. As a result, they are able to continue to partake in activities they wished to do downtown.

Stella (RP/I, D, F) attends monthly meetings at the downtown library.

Although she lives in Charleswood, and lives almost a kilometre from a bus stop, she chooses to take the bus downtown to avoid the parking costs. She explains:

Well, for me, it's more convenient that way [to take bus]. And, uh, I understand that their parking fee has come down some in the last few years. For a while their parking fees at the library were just prohibitive.

Jane (RP/I, D, G), on the other hand, meets a group of girlfriends in the downtown area monthly for lunch. Rather than paying for parking, she also chooses to take the bus instead of missing this social occasion.

The explanations and routines of Louise, Freda and Fay, plus the additional comments of Gertrude, Linda, Stella and Jane, suggest that resources, whether practical, leisure or social in nature, are not as geographically bounded as the literature suggests (Cutler, 1972; Cutler & Coward, 1992; Gant & Smith, 1983; Grant & Rice, 1983; Iutcovich & Iutcovich, 1988; Paaswell et al., 1982). Rather it would appear that the resource environment is cognitively constructed and an important dimension of this construction is convenience. How convenience is defined appears to be at least partially due to whether or not the woman is a driver. For women who drive convenience is more than simply having all goods and services in one area, it also means having free and ample parking. Therefore, convenience for drivers often means using suburban malls, whereas for women who are taking the bus through the

downtown area, like Louise and Freda, convenience means being able to use sites and services that are enroute.

The routes and sites used by the women that I interviewed are ultimately conserving in some way. For Louise and Freda the routes and sites that are used decrease their need to expend physical energy to carry items. For women like Jane, Fay and Stella, their conservation comes in the form of decreased need to spend money on parking. Therefore, for nine of the women that I interviewed, it appears that the convenience of resources is not necessarily synonymous with their geographical proximity nor is housing location necessarily as related as is implied in the transportation literature (Appendix 1).

The one exception to this convenience and proximity differentiation can be found in the situations of Brenda (RR/L, FM, F) and Yvonne (RR/L, FM, G). Both of these women live in multi-service seniors' apartment complexes. Although the two buildings have some significant differences, both women have access to meals, groceries, banking, and recreational and leisure programs, among other things. For these two women, convenience and proximity are synonymous terms.

Theme: Risk Perception:

A second predominant theme that emerged in Louise's interview was the role that risk perception plays in her community mobility experiences, choices and routines. Although Louise is very active, and moves around the city extensively, her decisions about where, when and how she travels are strongly influenced by the risks that she perceives to be around her. In Louise's narrative it is apparent that she

perceives risk as being of two types - unpredictable risk and continuous, familiar risk. Although both types have an impact on Louise's life, it is the latter of these two that has the greatest influence on her community mobility, particularly with respect to the choices she makes about what times during the day she will travel through the city.

Louise manages unpredictable risks by employing three specific strategies - avoiding confrontations with threatening people, avoiding travel or changing her mode of travel. Which of these strategies Louise employs is directly related to what time of the day she is travelling. During the daytime, Louise minimizes her risks as she travels through the city by dealing with threatening people in a calm and nonconfrontational manner. In the evenings, on the other hand, Louise avoids travelling or changes her mode of travel from the bus to her friend's car in order to avoid risk all together. Louise's strategies for managing the unpredictable risks that she perceives to be present during her community mobility are similar to a number of other women. The narratives of Sally, Mary, Tannis and Jane will be used to explore the theme of risk perception. Please refer to Appendix 12 for personal details on each of these women.

Daytime: Minimizing Unpredictable Risk

About midway through my interview with Louise, I asked her what things made it difficult for her to move around in the city. At first, she said that nothing made it difficult, then after I probed about some potential difficulties (i.e., personal and structural), she noted that safety was an issue and that the beggars, vagrants and

gangs of teenagers that she encountered while riding or waiting for the bus made her feel uncomfortable. I asked her if she ever felt unsafe. She responded:

I feel uncomfortable. I'm afraid that something is going to have to happen before I feel unsafe. I feel uncomfortable.

She noted that nothing had happened to her during her travels or at any of her transfer points because:

I've always treated everyone with dignity, regardless of who or what they are. And I've never yet had any problems, and I've, if I can't give something I just say I'm very sorry, I really have nothing to give to you. And I mean it because I won't open my purse, but I keep money in my pocket all the time. I keep money in my pocket to give away, it's wrong, I shouldn't be doing that, but I just, I'm afraid that if I say no that's the time that it's going to mean something to that person and I don't want to be the one that triggers something.

Although Louise denies that the money in her pocket is kept for a safeguard in case a beggar, vagrant, or some other potentially threatening person gets upset or angry, it is apparent that this money gives her a feeling of control (she won't have to open her purse) and therefore serves a sort of protective purpose for her regardless of whether she uses it or not. For Louise, carrying money in her pocket and treating threatening people with dignity minimizes the risk that she perceives to be present as she travels through the city during the day. Of particular interest is the fact that Louise plans for the possibility of meeting threatening people rather than allowing this possibility to stop her from going out.

Sally (RP/I, B, F) takes a similar approach to Louise, particularly when she is walking in her local area. When the weather is good, Sally walks almost daily to an IGA one kilometre from her home. She chooses to walk through the back lanes

instead of along Main Street because she finds that the exhaust from the cars bothers her. When we were talking about safety issues, Sally told me that:

Even during the day like you have to watch out for the boys, about 10 year old, like they go with the bike and spit at you. So, I try to be friendly to those little kids and always say hi to them, but they are oh, like that - not very friendly some of those kids. No, I don't feel safe [walking to IGA], but I usually put my money in my pocket, in my little [fanny] pack and I watch, look behind my back and if I see kids coming I usually go towards Main Street.

Although Sally keeps money in her pockets for a different reason than Louise does, at a very basic level their reasoning appears similar - they want to minimize the risk that their money will be stolen when they are out and about in the city. Sally also avoids confrontation with these pre-teens by being friendly, or alternatively, changing her route so that she does not have to meet them in the back lane. Like Louise, Sally plans for the possibility of meeting these children rather than choosing not to go out.

Albeit both Louise and Sally also try not to aggravate the people that may threaten them by dealing with them in a relatively friendly and non-confrontational manner, their approach was not specifically discussed by any of the other women that I interviewed. Mary (RP/I, B, G) prefers to minimize the risk of having a confrontation with threatening people primarily by ignoring them. She commented:

Well, I just seem to ignore them. I try not to look at them. And then I just shake my head if they ask me for money. One fella even asked me in the bus for money. I just tried to ignore him and he asked me again. So I said NO!

Many of the other women who participated in this study minimized their chances of encountering threatening people, and the risks they perceived to accompany

these individuals, by simply staying away from the downtown area. Although it could be argued that threatening people are still present in suburban malls, for most of the women their discussions of perceived risks and safety tended to revolve around their experiences in the downtown area.

Evening: Avoiding Unpredictable Risk

Early in Louise's interview, she described what a typical week is like for her, specifically where she goes, how she gets there and what she does. During this description, Louise did not specifically talk about going out in the evenings, and so I asked her if she did. Louise explained that she will not go out in the evenings unless she is able to get a ride with a friend. I asked her why. She responded:

What keeps me in at night is the fact that all of the areas that I have to make transfer points are not the neatest places to be waiting.

Through this response and the ensuing discussion, Louise expanded on her thoughts on safety, and identified the complex and interactive nature of the risks she encounters during her community mobility. Although Louise uses the same buses and transfer points during the day, being at these locations in the evening increases her perception of risk. Louise said:

I try not to be downtown late. You know, there's no use tempting fate.

What makes these transfer points unpredictable for Louise in the evening are the same beggars, vagrants and gangs of teenagers that she copes with during the day. However, her daytime strategies of carrying money in her pocket and dealing with threatening people in a non-confrontational manner are inadequate in the evening.

Louise commented that these individuals "badger or, you know", and that during the day she "feels uncomfortable" at these transfer points but that "you take it or you leave it during the day you know." But at night, darkness and fewer people around compounds the risk and will keep her from going out if she is unable to go with a friend.

Independently, the evening and the transfer points are not problematic for Louise's community mobility. Instead it is the interaction of these two factors, and the unpredictability that they create for her, that have an impact on her community mobility. This interaction turns what is a satisfactory mode of transportation (bus) during the day into an unsatisfactory one in the evening. To cope with this change, Louise employs one of two strategies - either she does not go out (*travel avoidance*), or she gets a ride with a friend (*changing modes of travel*). By using these strategies, Louise avoids the perceived risks all together rather than just minimizing them as she does during the day.

Travel avoidance and changing modes of travel were strategies that were also raised by Tannis (RR/I, B, F) and Jane (RP/I, D, G) when they talked about going out in the evenings.

Tannis uses the bus as her primary mode of transportation and will not go out alone in the evenings. In the past she has gone out in the evening, and she was able to draw on this previous experience to explain what she saw to be the risks in travelling at this time of the day. She explained:

There's been the odd time that I've changed the bus or something and thought that I shouldn't be down here at this time of night.

She continued by saying:

The time that that particular thing happened [thinking she shouldn't be downtown at that time], I went out to Transcona to visit my sister-in-law and we'd been out and I took the bus home and transferred down behind Eaton's and it was just a few, probably weren't looking at me at all, but there was a few gangs or groups that I just felt uncomfortable.

Now Tannis does not go out at night unless her male companion, who drives, or one of her children are available to take her. Therefore, like Louise, the combination of the evening and having to wait at bus transfer points means that Tannis either avoids going out, or changes her mode of getting around after dark.

Jane (RP/I, D, G) drives but will not take her car downtown because she is uncomfortable in the traffic and does not like paying for parking. She has two friends who live downtown. Although she enjoys spending time with these friends, she will not go downtown to visit them in the evenings. She explains:

I know that when, like they've had me there for supper a number of times, and the bus stops right outside their door. Okay, fine. But when I come back I would have to transfer and I would probably have to stand on Graham Avenue which I wouldn't be too keen on standing at night by myself. So I don't go down there at night...That's right. I just don't go.

Whereas Louise and Tannis may change their mode of travel to cope with evening community mobility, Jane does not. She does not have friends or family close by who can drive her, and she cannot afford to take a taxi. As a result, she simply chooses not to go (*travel avoidance*). Jane's rationale for making this choice is very straight forward:

Jane: I won't go out at night by myself.
Marcia: Why?
Jane: Too nervous.
Marcia: What are you nervous about?
Jane: I think that you have lots to be nervous about these days.
Marcia: For example?
Jane: Being molested.

The stories and explanations of Louise, Sally, Mary, Tannis and Jane demonstrate that community mobility is dependent to some degree on risk perception, and that this perception is closely associated with time of day. Time of day dictates what strategies the women use to manage the risks they encounter, and whether the function of these strategies is to simply minimize risk or totally avoid it.

Continuous and Familiar Risk

In contrast to Louise's management of unpredictable risk is her way of dealing with the continuous and familiar risk of living across the street from a biker gang. For many people, the bikers would be considered 'risky' neighbours, but for Louise they are a part of her neighbourhood, one with which she is incredibly familiar and comfortable, and in which she feels safe. The presence of the biker gang does not influence her mobility experiences in any way. She explains her rationale and de-emphasizes the risk of the bikers in this story:

We had a situation at the top of the street, we have a biker gang that lives here. It threw people into a panic...Then first thing that we found was that spray painting they do, graffiti, all over an empty building across the street. All over, what a mess, all over everything. I don't know if it is a proper gang or a quasi-gang or just what it is who did it, they're children. And then the next thing that happened was these biker gang people take exception to this, so they had got in touch with the gang [the children] and had them re-paint the entire building. It's a positive sort of thing. I've spoken to three or four of them over there,

and as long as they are quiet and mind their own business and what not.....The only good thing about having a biker gang is that they won't foul their own nest. They won't cause any problems here because they don't want any problems.

Louise does not deny the risk of living across the street from a biker gang, but she knows her neighbourhood, and knows some of the gang members by name. The bikers are a known risk in Louise's mind, she is able to de-emphasize their presence and therefore does not need to alter her plans or change her travel routines because of them.

Although Louise's story about the biker gang is unique among the women I interviewed, it is possible to imagine that other older women may also have familiar risks in their lives that they are able to de-emphasize, and that do not require a conscious accommodation for their community mobility. Without additional supporting narratives though, it cannot be determined if the perception of risk as familiar means that specific management strategies are not required, or if the concept of familiar risk can be applied to anyone other than Louise. What does appear to be the case though is that in situations where older women are moving around in the city and perceive a potentially risky situation as unpredictable, specific strategies are planned out and utilized in order to maintain feelings of control.

Theme: Personal Organization

Throughout Louise's interview, it was apparent that her ability to get around, establish her own travel routines and make her own travel choices takes some mental effort and skill on her part. Louise considers how far she must walk and carry

groceries, she prepares for the possibility of meeting threatening people during her travels and she tries as much as possible to complete multiple tasks in one trip. For example, she often stops downtown to go to the bank and the library en route to or from one of her volunteer activities. These observations identify that community mobility is not simply a physical task that Louise completes, but rather a process in which she engages, and one which is highly dependent on her ability to organize and plan. The importance of Louise's ability to organize and plan, as an initial step in the process of her community mobility, is the third theme which emerged in her interview.

Throughout my interview with Louise it was apparent that her ability to get around on her own and to make her own travel decisions was very important to her.

At one point she told me:

I don't like to be beholdng people to pick me up and bring me home. See I'm looking forward, or maybe not, that's the wrong word. But the day may come when I need people to do that. As long as I can do it for myself, I shall do it for myself.

The ways that Louise organizes and plans her travels enable her to be independent and complete tasks on her own. She identified a number of these ways during a discussion we had about the factors that make it easy for her to get around in the city. She explained how she will go out and explore bus routes with which she is unfamiliar, how she uses the tele-bus system to facilitate her travels, and how she will check out routes ahead of time if she is going to an unfamiliar district. Each of these strategies enable her to complete tasks for herself rather than seeking assistance. Her

series of responses to my question "What makes it easy for you to get around in the city?", went like this:

...there's a couple of bus routes that I have to go on just to explore to find out where they go...I get a real lousy day, and it's a miserable looking day out and I just get on that bus and I'll go somewhere just to see where does it go and how am I going to get back you know. Just in case. And if I'm going somewhere, I'm being invited somewhere and I'm not too sure about the district, I'll go the day before to find out where I am to get off...And using that telephone as to what time, like when I'm going to somewhere new...So I just take that number off of the bus stop sign, and copy it down, and then phone. Like today I'll phone if I'm going tomorrow and I'll phone at the time I'll be going there and what time I'm coming back and I'll find out what time the buses come so therefore I make connections all the way through.

In this section of Louise's narrative she describes how her own planning and organization, and within this, her use of the service system (e.g., tele-bus), makes it easy for her to get around in the city. The importance of planning and organizing to her community mobility has also been reflected in Louise's use of the downtown Eaton's grocery shop, the Safeway at Polo Park, and how she deals with the unpredictable risk of threatening people (i.e., always carries money in her pockets so she will not have to open her purse in front of beggars or vagrants). By thinking ahead, trying to find the easiest way of accomplishing daily tasks, and paying attention to the potential risks that are part of her daily travels, Louise is able to be independent in her community mobility and remain active and engaged in those activities which are important and have meaning for her.

Several other women that I interviewed also identified the importance of planning and organizing their travels in order to continue to be independent. They

include Diane, Gertrude and Catherine. Please refer to Appendix 12 for personal details on each of these women.

Although Diane (RR/I, D, G) lives across a major thorough-fare from a shopping mall, she drives everywhere that she goes because her arthritis makes using the bus or walking virtually impossible. At the same time, Diane is careful to plan and organize her travels in order to limit the physical demands driving places on her, particularly shoulder-checking. Our conversation about her planning went like this:

- Diane: I sort of plan my route before I go and I try to go where the lights are so that it makes it easier.
- Marcia: Can you explain that a bit?
- Diane: Well, I go out to my son's way out in the west side of the city, so I drive down underneath the subway and go down to Ness and then back to Portage. I don't go down and around. Do you know what I am talking about?
- Marcia: Yes, I have a vague idea.
- Diane: Well, it's just that I find it easier to go up and then back and then down. You've got the lights, and it's only an extra block. So that's how I plan my trips.
- Marcia: So you're always making sure you're at an intersection so you don't have to worry about merging in traffic?
- Diane: Yes, it's the merging bit.

Diane and I continued this conversation and she explained to me that planning her driving to go through intersections was not a matter of avoiding merging, but rather of doing things as simply and easily as possible. She felt that this planning was the sensible thing to do.

This attitude that planning was a sensible thing to do was also shared by Gertrude (RP/L, T, F). Although Gertrude was driving at the time that I interviewed her, she felt that it was time to give up her license because of health problems.

Gertrude had a noticeable tremor in both her hands as well as of her head. She explained to me the difficulty that she was having driving her car because of these tremors, arthritis in her hips and knees and because of deteriorating depth perception:

My knee is so bad I have trouble with the brake,

and

If I have to make a right hand turn I usually get too close to the curb, sort of, the back wheel hits the curb most of the time. I feel that, all in all, I should not drive.

But because Gertrude does not have another mode of transportation easily available to her, she continues to drive and plans her trips to accommodate her physical limitations as much as possible. She explains:

I tell you, I pick a dozen times before I leave the house when I have to drive somewhere. Gee I hate driving. Maybe I'll drive down Belmont, or, I start figuring these things. I'm afraid before I leave the house. I start figuring out where's the shortest way, where's the less traffic, you know, that type of thing.

In contrast to Louise, Diane and Gertrude, Catherine's (RR/L, FM, G) primary modes of transportation are by taxi or with her daughter, who lives next door.

Catherine does not use her two modes of travel equally, but the nature of her travels with each mode is clearly delineated. Her weekly Saturday trips with her daughter tend to be more casual and social in nature, and take her to Eaton's and The Bay for a stroll and some leisurely shopping. Catherine's taxi trips tend to be more business-oriented, done during the week when her daughter is at work, and occur about once a month. These mid-week trips are well thought out and carefully planned by her in order to ensure that she can accomplish all of her necessary errands. She explains:

Probably about once a month, maybe a bit oftener, I have a number of things that I want to do so I get a cab. Most of them are driven by East Indians and I find them very, very pleasant. I say that I want a cab and that it's going to be quite a long trip. Will you wait for me? I'm going to do this, this and go to this place. And I just knock off a whole lot of things in one trip. But you really have to plan these things, and be sort of orderly. I make a list and get everything together here and then just do it.

Catherine continued and described what one of these trips might entail:

I might go to the bank, and the Pack-and-Post. I use that service quite often. Then maybe back to [book store] and into [grocery store]. Instead of having them deliver, I'll just phone ahead and give them an order and go and pick it up.

Although the nature of the travel planning and organizing for each of these women is different, all find that taking this time facilitates their community mobility in some way. For Louise it means not having to ask a friend for a ride, for Diane it means making driving physically easier to do, while for Gertrude it means accommodating her physical limitations so she can cope with her developing fear of driving. For Catherine, planning means getting all of her business activities done in one trip and therefore being able to maintain her trips with her daughter as primarily social in nature.

The narratives of these women suggest that organizing and planning is an integral component of the overall process of community mobility. Ultimately, organizing and planning their travels means that these four women can continue to experience some autonomy in their community mobility.

Louise's Structural Critique:

As a woman who travels extensively, frequently and independently through the city on a daily basis, Louise has experienced a range of factors that negatively influence her mobility. Some of these factors have already been described in the process of introducing and analyzing the themes of convenience, risk, and organization and planning. In addition to these themes and the negative factors identified within them, Louise also discussed, as did numerous other women, factors such as the height of bus steps and the importance of older people exiting from the front versus the rear door of buses. In Louise's case, the fact that she raised these concrete, structural issues is of less interest than the way in which she did so.

Louise was the only woman that I interviewed that offered a significant structural critique of some of the factors that negatively influenced her community mobility, but then she turned around and took ownership of these factors rather than politicizing them. Although many other women were able to identify negative factors that influenced their mobility (refer back to Chapter 6 - Mobility Influencers), Louise linked them to larger socio-political factors whereas the others did not. At the same time though Louise did not take any steps past identification and linkage towards suggesting that seniors needed to take action to improve their community mobility situation.

A number of questions in my interview guide request that the woman reflect and offer an opinion on how or whether larger structural issues (e.g., environmental factors, systems/services, aging and gender stereotypes) influence her community

mobility. For each of these questions, I found Louise's responses to be a series of apparent contradictions.

At one point, we were discussing what made it difficult for Louise to get around in the city. As a result of my question "What are some of the things that make it difficult for you to get around?", she noted that many of the bus routes travelling through the downtown area were poorly organized and coordinated and did not allow seniors to easily transfer from one bus to another:

But my biggest complaint about the transit is you get within five inches of the bus that you're transferring on and he's gone. And then you wait for another 20 minutes for the bus that you're going to get. And when you're going to get off your bus, you have to walk at least, at least half a city block to get the next connection. Now if I'm going north Winnipeg, I've got a whole city block to walk when I get off the bus at the last stop on Higgins Avenue to get to the first stop on Main Street to go North Main. Now, the buses all run in three's and four's. So if you miss a bus, you've got the longest time to wait...This is right [transfer points not well planned]. I'm coming off of the bus up here, the bus that comes say from the Concordia, it's coming down, my bus is going across. Does the Grey bus wait till I get off that Concordia bus and run across the street? No. And I've got 25 minutes to wait for the next bus. In 25 minutes I can walk home, and it's over a mile and a half.

Following this explanation, I asked Louise what suggestions she would offer to make the city more accessible if she were to be invited to be on a seniors' transportation committee. She suggested that she would "try to intersect the transfer points" and put them "closer together" and "coordinate the times." I encouraged her to reflect on some of the other things that she had told me in our interview to come up with some other suggestions for improved accessibility. I repeated to her some of the

concerns she had raised earlier in our interview, one of these being the location of the transfer points and her sense of discomfort at these sites. She responded:

That's not their fault, that's my fault because of the area that I live in.

Louise's response was unexpected, given the scope of her structural critique.

What was further unexpected were her responses in the two following exchanges:

Marcia: Do you think that city officials consider the needs of seniors when making transportation plans and policies?

Louise: They can't. I mean they can't consider seniors, they're people. They're moving people, they're not moving seniors.

and

Marcia: What do you think of this statement? Accessible transportation is a right not a privilege.

Louise: Accessible transportation. It is a privilege. There is nothing in the law of the land that says that the government must transport people. It's a way of life.

These series of comments by Louise suggest that at one level she recognizes structural factors, particularly service ones, as impinging on the ease of her mobility. At another level, she dismisses these factors in favour of retaining a feeling of control and independence over her travel decisions. Louise's strong sense of self-responsibility and her ambivalence about attributing any of her community mobility difficulties to anyone but herself is apparent by looking at how she moves through the city and takes control of structural issues through organizing and planning her travel (e.g., calling tele-bus the day before to coordinate her transfer times).

By owning these problems in the system (e.g., "...that's my fault because of the area that I live in"), rather than attributing them to some external system, Louise can

plan and organize her community mobility around these issues and continue to be autonomous and independent in her own eyes. Accepting her own structural critique leaves her two options - do something to change these problems, or submit to them and live with a sense of dependence on the system.

Louise's approach to the structural issues that influence her community mobility raises important methodological questions about how such structural topics can be raised and probed in an interview, and how far an interviewer can or should push a participant to consider broader issues and still obtain good quality, unbiased data. This issue will be addressed further in the final chapter of this thesis.

The Meaning of Community Mobility in Louise's Life:

Through the process of introducing Louise, and analyzing the themes that were present in her interview, it is apparent that community mobility is of paramount importance in her life. Community mobility allows her to remain active and connected to the community. She commented to me that:

If I couldn't get around when and where I wanted to, it would probably precipitate my getting old.

To develop this idea I asked her what community mobility offered her. She responded:

Aware of what's going on in the world. You have to know what is going on in the world and how you interact with what is going on...Oh, if you have seen the people that I have seen that are 55 years of age and sitting here and picking the lint out of their navels, they're just, I mean, there's nothing upstairs

By using convenient, energy conserving service acquisition routes and developing strategies to cope with unpredictable risk, Louise is able to move freely around in the city even though she faces a variety of barriers. Through planning and organization, and some degree of exploration and experimentation, she facilitates the overall process of her community mobility. As a result, Louise is able to continue to be independently mobile, and therefore mentally active and engaged in her community. For Louise, community mobility contributes to her positive mental health.

*CASE 2:
EXPLORING AND UNDERSTANDING
DRIVING, BURDEN AND ADAPTATION
- THE STORIES OF BRENDA*

In stark contrast to Louise and her frequent and extensive community mobility is Brenda (RR/L, FM, F) with her narrow, confining life space. Brenda is mobility impaired and requires a walking aid at all times. Her transition from independent to limited community mobility over the past three years provided a focus for our interview. Exploring Brenda's transition offers insight into the factors that can influence the process of community mobility and hasten its demise.

Brenda's narrative highlights the importance of driving in her life, and how the loss of her driver's license has had repercussions on her sense of independence. In addition, Brenda's situation and current approach to community mobility, when compared with those of other women in the study, demonstrate the significance of adaptation for continued community mobility.

This section introduces Brenda, her stories and experiences of community mobility, and then addresses the themes of driving and adaptation in detail by comparing and contrasting her narrative with those of a number of other women who participated in the study. Although none of the other women that I interviewed share the isolated world which Brenda inhabits, their inputs into this chapter show an awareness of and insight into what could happen if their community mobility were to become compromised in some way. These other women will be introduced at the beginning of each theme.

Although Brenda refused to have her interview tape recorded, I was able to take extensive fieldnotes during our interview, at times including direct quotes. These direct quotes are used whenever possible in this case rather than paraphrasing Brenda's comments.

Introducing Brenda:

Brenda is a single woman who looks much older than her 71 years. She appears thin and frail, and slightly kyphotic. She walks slowly and painstakingly, and is unable to maintain her balance without the external support of furniture or the walker²⁷ which she has had for almost a year. Over the past few years she has moved from using one cane to two canes to the walker primarily due to balance problems.

Brenda lives in a church managed, subsidized seniors' apartment building which is less than half a kilometre from a major shopping mall, and about 50 metres away from a bus stop. She has lived in the building for 14 years, and in Winnipeg since 1967. She came here after the death of her parents for whom she was the primary caregiver. She has never been married and identifies her caregiving responsibilities as one of the factors in her marital status. After coming to the city from her home town in southern Manitoba, she took up residence in an apartment on Pembina Highway and worked in a hospital kitchen for 16 years.

27

Brenda has a deluxe walker with a seat, removable basket, swivel front wheels, and easy release brakes. Once the basket is removed the walker is collapsible for easy transport.

Brenda has one sister in Winnipeg, and one brother who still lives in the community in which they were raised. Brenda sees her brother about once a year, and he had been in to take her for dinner the week before our interview. She spoke fondly of her brother and expressed a desire to see him more often. Her sister has recently been widowed and Brenda expected that this event would mean that they may spend more time together in the future. Although she wants to see her siblings more often, Brenda expresses a reluctance to tell them that she is lonely and would enjoy their company.

Early in our interview I asked Brenda to tell me about the programs and services available in her building. She provided the following information:

- milk is delivered twice a week and tenants can go down to the main floor to purchase it if they wish;
- a local bank comes once a month for a day, after the pension cheques arrive, and tenants can do all of their transactions at that time;
- a grocery truck comes every Saturday, but tenants can call in their orders on Friday. For those who choose to do this, their groceries will be delivered right to their door;
- a variety of recreational, leisure, educational and spiritual programs are offered in the common rooms on a daily basis, for example - crafts, exercises, entertainment, games, and church services. More programs are offered in the winter months than in the summer;

- a nurse is available in the building two and a half days a week and she provides medication teaching, escorts to medical appointments and escorts for hospital visiting;
- lunches are served in the dining room 5 days a week, and supper is served once a week;
- the administrator of the building has a mail slot in his door for tenants who are unable to walk out to the mail box that is located about 20 feet from the front door of the building;
- a hairdresser, with a full salon, is available on site; and
- in the spring and fall a clothing store comes in for those people who are unable to get out to purchase their clothing in local stores.

Brenda uses all of the building services to some extent. She uses the milk service, the bank and is one of the tenants who calls in her grocery order on Fridays. She uses the hairdresser weekly, and takes advantage of the administrator's willingness to take the mail out to the mail box. Over the past few years she has purchased her clothing from the store that comes into the building. Her participation in the programs and activities offered in the building is limited. She explained, "I don't play games", does not go to crafts and cannot do the exercises. Brenda does regularly attend the worship services though and will occasionally go to see the entertainment. She noted that she has no qualms about getting up and leaving an entertainment program if it is too loud or not any good.

As a result of her use of these services, the only reason that she needs to go out of the building is to purchase footwear. Brenda identifies this as a major problem because she sees herself as having no way of getting out to buy shoes.

When I asked Brenda about her health, she rated it as fair noting that, "It is not very good, but I still do my own housekeeping", with the exception of seasonal cleaning for which she hires a private cleaning lady. She no longer goes to her family doctor but rather will have the nurse in the building escort her to a local walk-in clinic if a health concern arises.

Brenda explained that she has lunches in the dining room about 3 or 4 times a week, depending on what is on the menu. She does not go down for the weekly supper because:

The portions are too large and because you are served you have to take everything.

When she goes to the dining room, Brenda will join a friend if he/she is sitting alone but will only join a group if she is invited.

In terms of Brenda's community mobility, her community is essentially her apartment building. Brenda can go months at a time without leaving the building, and this is particularly the case over the winter. Even in the spring and summer, Brenda's treks out of the building tend to be limited to the court yard area just outside of the building's back entrance. This narrow life space is a dramatic change from three years ago when Brenda still drove her own car. A lengthy part of our interview was spent

talking about how she came to lose her driver's license and what that change has meant in her life. Her story goes like this -

Three years ago in May, Brenda drove out to her home town for her niece's bridal shower and had a really nice time visiting with friends and family. On the way back to Winnipeg she was stopped by the police because she was weaving on the highway:

I had a tremor you know.

The police notified the license bureau of the incident which coincided with her license renewal. As a result she was called in for a road test which she subsequently failed. She arranged to take a second road test, but before she was able to take it, Brenda broke her foot. As a result, she was never retested and has never driven since.

During the course of this process, Brenda had asked if she could have a restriction placed on her license so she could be allowed to drive in the small area around her apartment building. Such a restriction would have allowed her to get to the local mall and do her shopping, and would have provided her with some independence to complete some of her instrumental activities of daily living. She was refused this request which was devastating for her:

I used to always go to Safeway, and go window shopping. I can't do that now. I used to enjoy that.

The impact of the loss of her driver's license was still evident to me as I listened to Brenda tell this story. She spoke softly, and was very sombre. She rarely looked at me.

In certain areas I feel less independent now. I used to like to do my own grocery shopping and pick out fresh vegetables. I don't buy fresh vegetables anymore because I can't pick them out myself.

Now she purchases only canned or frozen vegetables. Brenda summed up what it was like to lose her license:

I felt lost.

Not only has the loss of her license affected the way in which she completes her instrumental activities of daily living, but it has also severely influenced her social life. When she drove, she regularly attended social functions such as weddings and anniversaries, had Christmas with friends, and attended funerals. She no longer goes out for any of these events:

Even if I am offered a ride I don't go. I know that they [the people who offer] wouldn't mind, but I do.

I feel that I am a burden to others and I don't want to do that.

So,

I stay home alone.

Driving offered Brenda a way of overcoming her personal physical limitations, and allowed her to move around in the city with relative ease. She was able to partake in activities which were important to her and to control her involvement with them.

Driving meant that she could come and go on her own time, and make her own decisions about when and where she travelled through the city. The loss of her driver's license has taken these freedoms away from her and has made her feel less independent. Furthermore, the loss of her driver's license has made Brenda acutely

aware of the potential burden she could place on other people. For Brenda and numerous other women in my study, the issues of independence and burden were closely linked in their community mobility narratives.

Theme: The Importance of Being Able To Drive

Although none of the other women in my study had lost their license, one was in the process of deciding whether or not to stop driving, while four others had already stopped for various reasons. These women, plus those who continue to depend on their cars for their community mobility, provide some further insight into how driving can contribute to a sense of independence, and how it is seen by many women as a tool through which they can mitigate the burden they impose on other people. These women include Gertrude, Betty, Tannis, Fay, Linda and Helen. Please refer to Appendix 12 for personal details on each of these women.

Gertrude (RP/L, T, F) is experiencing a multitude of physical problems that are having an impact on her ability to drive safely and control her car. Over the past few years, Gertrude has driven less and less, and the area in which she is willing to drive has become smaller. At the time that I interviewed her it had not yet begun to snow, but she had essentially decided that once the weather changed that she would stop driving. As a result, she was in the process of making plans of how she was going to complete her instrumental activities of daily living without a car. I asked her what she thought it was going to be like for her to not drive. She responded:

I think that I would lose a bit of my independence. It would take away, what do you call it, a little of my independence.

Being able to get around in her community was very important to Gertrude.

Although she was able to identify a few friends that would be willing to take her out to do her business, she felt that it would just not be the same as going on her own. To emphasize her feeling on this, Gertrude explained the relationship she has with one of her friends:

My husband has been friends with her husband from a way back so we've sort of got close and the fact that she is much younger than us, I've always called her my daughter and introduce her to everybody as my adopted daughter. She is very good too. I have a funny nature. I can't impose upon people. I can't phone her and ask her how would you like to take me to do my shopping?, or you know. So, she'll often phone and ask is there anything that you need, is there anything? But I can't do that. I don't want to be indebted.

It is very important to Gertrude to not impose on her friends, and therefore her community mobility options will become limited once she chooses to give up her license. In a rather joking manner, Gertrude mentioned a number of times during our interview that a chauffeur would solve all of her problems. A chauffeur would mean that she could get around when and where she wanted, and she would not have to be a burden to her friends:

You know, I'm a very funny person. I don't have much, I don't need much, and I don't want for much outside of a chauffeur. That covers the story of my life. That's the only thing.

Although said with some jest, I did get the sense that at some level Gertrude was being very serious. Her references to having a chauffeur were always made in the context of saying what she needed to continue to live independently. For Gertrude, driving signified independence, but a chauffeur could provide independence by proxy.

Betty (RP/L, FM, F) gave up her license three years ago for health reasons. Like Gertrude, she was experiencing problems related to the physical demands of driving. Betty has rheumatoid arthritis, and over the years the disease has limited her range of movement and her strength. Slowly over time she found herself driving less and less, and eventually decided that it was in her best interest to stop completely. She explained what it was like for her to make this decision:

It sort of broke my heart to give it up because you're giving up one of your freedoms.

I asked her to elaborate on why it broke her heart. She added:

That's because you're giving up one of the things that you can do, like seeing, or jumping, or kneeling down, you know. Like I don't kneel down because who in the heck is going to pick me up?

As Betty and I continued our discussion, she continued to tell me what it was like for her to give up her license. Like Brenda and Gertrude, Betty is also aware of how her inability to drive could potentially create a burden on the person on whom she depends, that is, her husband. She too is unwilling to impose this burden:

Lots of times I want to go some place this instant. And I can't because I can't drive and I can't ask [my husband] to do that because he's busy doing something else and I'm not going to put him into a position where I'm going to say I want to do this and this. I'm not going to do that.

At the end of our interview, Betty expressed concern that she had not been a good interviewee and that I had not been able to learn much from her experiences. I explained that I had learned a lot from her story about giving up her license. This comment spurred her on to add these final thoughts:

It gives you a little lump in your heart there you know, that you have to give it up. But you have to, you have to. You can't keep that up, hanging on to something that is impossible. And you can never go back. Never.

Although Betty has the good fortune of having a husband who is in good health and continues to have no difficulty driving, her experience of giving up her license does highlight how the ability to drive can contribute to a sense of independence, and how after that ability no longer exists, mitigating burden is a significant concern. For Betty, driving was a freedom and the way that she likens it to seeing, jumping and kneeling reinforces the importance that driving had in her life. Other women that have given up their license shared similar feelings.

Tannis (RR/I, B, F) gave up her car when she retired five years ago because of financial limitations. Although she lives within walking distance of all of the services she regularly requires, and has no physical problems in using the bus, giving up her car was still very difficult for her. Our conversation went like this:

Marcia: Why did you decide to give up your car?
Tannis: I hate it, I hate not having it. But it was an old car and it was starting to cost money every pay day so, you know, I had to give it up.
Marcia: So you gave it up.
Tannis: Couldn't afford to run it to tell you the truth. It gets very expensive to drive, especially old klunkers.
Marcia: Do you regret giving it up?
Tannis: Only because I can't get up and go as I want.
Marcia: So is it a matter of less freedom for you?
Tannis: I'd like to have it for my shopping trips so I wouldn't be bothering anyone else, not that they let me think that I'm bothering them but, and um, yeah, I would like to be able to just get up in the morning sometimes and say well I'm just going to go and see my daughter and drive out to [small town], you know, it's only an hour and a half.

In this passage, Tannis identifies that not having a car makes her feel that she is bothering others to take her for shopping, but she also acknowledges that driving provided a sense of freedom. Driving gave her the ability to just get up and go, and this aspect of independence was commonly mentioned by the women in my study who continue to drive.

Fay (RR/I, D, G), who has been a driver for the past 61 years, reflects on the freedom, independence and control that driving provides to her:

It's my own transportation. I hate to think of the day that I'll have to use the bus all of the time. I can go when I like, I can come when I like. I don't have to go to a bus stop and stand there and freeze or get wet. Don't have to put up with obnoxious kids on the bus, or a bus driver that doesn't give a hoot whether you flop on your nose as he starts off with a shot or stops.

Linda (RP/I, D, E), another woman who has been driving all of her adult life, made these comments about the advantages and importance of driving:

I can get out as much as I want or as little as I want.

Well, right at the top I guess [importance of driving for independence]. Well I think that if you are, if you want to be independent you have to be mobile. And as long as I am, I feel that I can be completely independent.

The strongest comments about the association between driving and independence came from Helen (RP/I, D, G), who has driven all of her adult life. Our interaction went like this:

- Marcia: In your current travels through the city, what are some of the things that make it easy for you to get around?
Helen: Well, my car. I would hate to be without it.
Marcia: Why would you hate to be without it?
Helen: Well, because it would restrict me.

Marcia: In what way?
Helen: A car is, you know, a car is power. To be independent is power, and a car gives you independence.
Marcia: So if you didn't have a car, would you feel as independent?
Helen: No, not to the same extent.
Marcia: I'm interested in this comment, you said a car is power.
Helen: Well, really a car is independence to me. And independence is important to me because independence is power.
Marcia: How is independence power?
Helen: Because then you do what you want to do. It's doing what you want to do, when you want to do it. And that's power. It's the power to move around when you want to.

Although Brenda is unique among the women I interviewed in terms of having lost her driver's license, it appears that her sense of loss is recognized by other women, including both those who used to drive and those who continue to do so.

Unfortunately, the topic of driving was not specifically explored among the women who had never driven. However, three non-drivers (Louise (RP/I, B, E), Margaret (RP/L, FM, F), Catherine (RR/L, FM, G) did comment on driving, and their comments contribute to an understanding of driving and the ways in which this skill can augment one's sense of independence.

Among these women, Louise and Margaret appeared to recognize that driving could contribute to a sense of independence. For Louise, this recognition is reflected through her regrets about taking driving lessons:

It's the only thing that I ever gave up on. See, I made a very big error, I went to take lessons in a class, and I should have never done that. I should have taken private lessons.

Margaret has never driven. Although a lack of transportation is a major problem for her, she noted that this is not the case for many other seniors who live in

her apartment building since many of them drive their own cars. We continued in the following way:

- Margaret: You take that car away, you lose your independence.
Marcia: Did you ever drive?
Margaret: Well, no, a bit in the country, but not in Winnipeg. But I think that every woman should know how to drive.
Marcia: Yeah?
Margaret: But I didn't have the courage.
Marcia: Do you regret that?
Margaret: Yes, I do.
Marcia: Why?
Margaret: Well, if I drove, we could have kept our car longer.

The only other non-driver who commented about driving was Catherine and her perspective was that she was better off not being able to drive. Her logic was as follows:

In a way, the one who doesn't drive has an easier time. The one who drives is at everyone's beck and call. My husband drove the children to school everyday. I was never the family messenger, or had to do the family shopping, take the children to lessons, you know, all sorts of things.

Although Catherine's perspective differs significantly from the eight other women who contributed to the driving theme, overall it appears that the ability to drive can play a potentially significant role in one's sense of independence. The ability to drive provides the current drivers with a sense of freedom since it allows them to come and go as they please, without having to ask other people for assistance. Even after not having driven for many years, this sense of freedom is what the former drivers appear to miss the most.

The way in which Brenda and the other former drivers (Tannis and Betty) link their inability to drive and their concern over being dependent on other people is not unique. Rather an appreciation for the presence of this linkage can be found in the narratives of current drivers as well. As a result, driving can be seen as a skill which both contributes to a sense of independence as well as mitigates burden imposed on other people.

But recognizing and articulating this linkage between driving and burden is where the similarities between Brenda and the other women who contribute to the driving theme end. How Brenda and the other women cope with their concern over being or becoming a burden was quite variable. This variability raises another theme that was predominant in Brenda's interview.

Theme: Adaptation

After Brenda told me her story about losing her license, we talked about what alternative modes of transportation were available to her. We talked about handi-transit, going with friends or family, and using taxis. For each option that we discussed, Brenda had a reason why it was an unacceptable mode for her to use. When I reviewed the transcripts from some of the other women that I interviewed, I realized that Brenda's unwillingness to use alternative modes contrasted significantly with the willingness of some of the other women to be flexible in the way that they got around, to change modes entirely, or to explore new modes. While women like Yvonne (RR/L, FM, G) and Sylvia (RR/L, FM, G) realized that a flexible approach to community mobility would mean that they could continue to move around in the city

versus being isolated in their homes, Brenda was unable to make this transition.

Brenda's narrative and current life situation appears to exemplify what can happen to an older woman who is unable to be flexible and adapt to changes in her community mobility. Her inability to adapt to her mobility loss can be seen in the contradictory picture she gives of her interactions with friends and family who offer her opportunities to go out. At one level Brenda pushes away those people who are most supportive of her - she turns down rides, and will not tell her siblings that she is lonely. On another level, she appears to crave social contact and describes her sadness at missing various social events. Her desire for social interaction was apparent in her primary reason for agreeing to be interviewed for my study - she thought it would be nice to have a visitor.

A glaring example of this inability to adapt came in Brenda's handi-transit story. At one point I asked Brenda if she knew about handi-transit and whether or not she used it. She responded:

It has the wrong name. It is not very handy.

I asked her to explain what she meant and why she had this opinion. Brenda explained that she did have a handi-transit card, but hadn't used it for a long time. The last time she had called to get a ride was in the spring. When she initially called to book the trip she explained to the dispatcher that she had a walker and she was told that it would not be a problem. When she called back the day before her scheduled outing to confirm the ride, as the service requires, Brenda was told that they did not know about the

walker and would not be able to take her. Rather than pursuing the issue, and advocating on her own behalf, Brenda has chosen to never use the service again:

I was put off, so I didn't go. I've never called them again.

Unfortunately, Brenda sees handi-transit as unreliable and has no other way of getting around the city since she will not ask friends or family for a ride. Furthermore, she tends to turn down those rides offered to her. She used to hire a young woman to drive and escort her to the mall for window shopping and to purchase footwear:

I got her name from the [bulletin] board, \$10 an hour to take me shopping.

Regretfully, this woman has recently left the province, and although the young woman's mother has offered to take Brenda out, Brenda has refused because the mother is older. Brenda will not take a taxi because:

I don't think that cab drivers want to bother with a walker.

As Brenda talked, other examples of her unwillingness or inability to adapt and be flexible became apparent. One example appeared as she offered her reasons for refusing rides from friends who offer them. She began:

I've declined some rides to funerals you know. I don't know where it is and I worry about steps.

I asked her specifically if she actually inquires about steps. She said no. She further explained her refusals of rides by saying:

I can't fold up my walker by myself and I need help. I don't like to ask others to do this for me.

Later in the interview, we talked about her walker since I was unfamiliar with the model she owns. She pointed out some of its features and was able to give me quick verbal instructions on how to fold it up which I found easy to follow.

As we were talking during this section of our interview, I often got the sense that Brenda was not only trying to convince me that there were no ways for her to get out, but she was also trying to convince herself.

Brenda's inability to adapt to her physical mobility limitations and be flexible about how she moves around in the city contrasts with the experiences and stories of Yvonne (RR/L, FM, G) and Sylvia (RR/L, FM, G) who are also mobility impaired.

Both Yvonne and Sylvia use a cane for walking long distances and/or for out-of-doors, yet both women get out at least once a week. Sylvia often has weeks that she is out at least three of seven days. Each woman uses multiple modes of transportation, employs specific strategies to facilitate continued mobility, and has explored various options in order to continue to be able to move around within the city.

Yvonne (RR/L, FM, G) is a good example of someone who uses multiple modes of transportation to compensate for changes in her own physical abilities. Although she has driven in small towns, Yvonne has never driven in the city and therefore describes herself as a non-driver. Nevertheless, she has always gotten around on her own, on the bus, up until the last few years.

With reduced physical abilities secondary to a stroke four years ago, Yvonne is no longer physically able to use the transit system to get around in the city. To compensate for losing this mode of transportation, she now employs several

alternative ways of getting around, including asking her daughter, using handi-transit, taking advantage of the scheduled van transportation provided to the tenants of her building, or if absolutely necessary, asking a friend. I asked Yvonne if she was happy with the amount she was getting out, and if she was satisfied with the way that she travels. She responded:

Well, if I'm not happy it is my own fault.

Oh, yes, sure [satisfied], and if I'm not I'll phone my daughter and she can come in and take me someplace or take me out.

Later, when we were talking about the physical ability changes she has experienced and how they have had an impact on her social life, she added:

It strictly your own business whether you are lonesome or not.

Yvonne appeared to have no qualms about changing her approach to community mobility to compensate for physical losses. Although we did not directly discuss it, she seemed to intuitively understand that without this adaptation, her current contentment with life would be drastically altered.

Like Yvonne, Sylvia (RR/L, FM, G) also used multiple modes of transportation to compensate for physical limitations that prevent her from using the transit system. But unlike Yvonne, she plays out her flexibility through reciprocation of favours and by modifying her own schedule to minimize the burden she places on her family for rides. Up until three years ago, Sylvia was able to walk or take the bus to complete most of her instrumental activities of daily living independently. But over

the past few years she has experienced increasing difficulties getting around. She explains:

I have, what do you call it, diabetic neuropathy. Like your feet are sleepy like. I use a cane though because I don't feel, um, going down a curb or going up a stop, I need that.

As a result, for her community mobility:

My daughter-in-law mostly takes me.

Some rides are also provided by her brother, who lives close by, or a neighbour.

I asked Sylvia if she was ever concerned about asking for rides from her daughter-in-law, particularly in light of the fact she lives in the city and must go out to the suburbs to pick up Sylvia. Sylvia responded:

I do a lot of babysitting for them.

I have them out here for suppers every once or twice week.

When I asked her if she did these things as a way of reciprocating the rides, Sylvia admitted she had not ever thought about her actions in that way. But ultimately, it would appear that her actions are a form of reciprocation, and that they help Sylvia to feel that she is repaying her daughter-in-law for the rides that she is providing.

A second strategy that Sylvia uses to compensate for the changes in her ability to get around independently is the way that she alters her own plans to fit into other people's schedules. Two examples she gave during our interview were going shopping with her sister-in-law, and going to the hairdresser. She explained:

I know that my sister-in-law plans for Friday mornings at 10 o'clock, so I keep to that [for groceries]. I don't want to put her out, for her to go out of her way. That's the day that she has for her shopping, so that's the day that I do mine.

My hairdresser lives over by the {grocery store} and she comes and picks me up. She comes and picks me up in the morning and drives me back home. But I have to go early in the morning though.

Sylvia has also tried exploring alternative modes of transportation in case there comes a time when her family is unable to provide a ride for her. About once a month she will use a taxi, and:

Oh, and once I took that WeCare, and that came to about \$40 cause they charge you by the mile.

Although Sylvia found this transportation service to be rather expensive, and has only used it the once, she felt that she would use it again:

I would if I was stuck, cause I mean they had a woman driver and I'm more comfortable with them. And she waits for me, and if I want to do any shopping while she has me, she'll take me there.

Even though the stories of Yvonne and Sylvia demonstrate the importance of adaptation for continued community mobility, this theme was also seen in the narratives of women who are currently independently mobile. Fay (RR/I, D, G) is one example.

Fay is an active woman who has travelled extensively throughout the world.

One of Fay's joys is hooking up her trailer and taking off on a camping trip:

I've pulled my trailer from the Atlantic to the Pacific, and down south, all through Yellowstone and all over there.

But over the years, Fay has had to modify the way that she travels and camps. She explains:

In the last five years I've stayed mostly around Manitoba. As the trailer gets older and the car gets older and I get older, you sort of stay closer to home plate in case you have trouble or something.

Although camping takes Fay outside of the city perimeter, and therefore can be considered macro-mobility²⁸, nevertheless its continuity is dependent on her ability to adapt to her aging mobility resources. Whereas Brenda, Yvonne and Sylvia are primarily having to adapt to aging resources that have an impact on micro-mobility, Fay's quotes show that adaptation is important for mobility at the macro level as well.

In summary, adaptation is a key factor in ensuring continued community mobility for the women in this study who are having to cope with aging mobility resources, whether personal (e.g., deteriorating health, loss of ability to drive) or structural (e.g., aging car). For Yvonne and Sylvia, adaptation is achieved through the utilization of strategies such as using multiple modes of travel and reciprocating favours. Fay's strategy has been to decrease the distance that she covers as she camps and holidays in the summers. Unlike Brenda, these three women have chosen to adapt to their community mobility changes rather than become isolated.

28

Refer to Chapter 5: The Nature of Mobility, for a discussion of micro- versus macro-mobility.

Refocusing on Brenda:

The importance of adaptation for continued community mobility is shown by comparing Brenda's story with that of other women. What appears to differentiate Brenda from the other women that I interviewed are three factors - her license was taken away from her versus voluntarily surrendered, she has no immediate family (i.e., husband or children), and she lives in a high-service building. Since no other woman that I interviewed has this combination of characteristics, I am unable to suggest how, or to what degree, each of these factors contribute to Brenda's unwillingness, or inability to adapt to changes in her ability to get around.

Although Brenda does identify other factors as having an impact on her community mobility:

Weather is a factor, I'm not sure footed anymore.

"Health is a factor, I have discomfort in my head and it makes me feel awful.", ultimately, these as well as factors such as the accessibility to buildings and handi-transit priorities really play a minor role in her overall mobility picture. As Brenda offered her comments about the weather and her health, it seemed as if she was trying to convince herself that not going out was not a problem or concern for her:

I've never been an outgoing person, so it probably makes it easier.

But, like the contradictions she posed regarding her interactions with family and friends, she also notes that:

There are times I would like to go,
for example:

I would have liked to be at my friend's silver wedding anniversary, and my brother-in-law's funeral.

But,

I just say forget about it and stay home.

It makes me feel lonely.

The building in which Brenda lives has made it easy for her to become isolated - although there are many activities, it is not necessary for her to reach out to friends and family because virtually everything is provided for her. She has no need to call friends or family to take her shopping, pick up milk, take her to the bank or to help her with other tasks. Removing the need for these supportive activities has also taken away the opportunities that these activities would provide Brenda for outings and companionship. In addition, Brenda's tone during our interview suggested that the programs available in the building make it very difficult for her to explain to family or external friends, and even herself, that she is lonely - *how could that be? Look at all of the activities that are available here!* I asked Brenda about how living in her building influenced her need to get out. She said:

The building services help me to not get out at all.

I asked her if this was good or bad. She responded:

In a way it is good, but it would be good to get more fresh air.

In summary, Brenda is a lonely woman whose community mobility is limited for a variety of complex and interrelated reasons. Although it is unclear how these factors interact and which are the most important, ultimately her failing health, her

loss of her driver's license, her lack of immediate family to call upon, her unwillingness to consider alternative modes of transportation, and the fact that she lives in a high-service building have all contributed to limited community mobility. Unfortunately the impact for Brenda has been isolation, and this in turn has meant loneliness for her.

*CASE 3:
EXPLORING AND UNDERSTANDING WEATHER
AND SOCIAL OBLIGATION - THE STORIES OF JANE*

Jane is a petite woman who was anxious to have me come and interview her. During our initial telephone conversation she commented that my study's topic was of great interest to her, and that it was an important issue overall for older women. She explained that her husband had recently passed away seven months prior to our meeting and although she was able to drive, she had become much more aware of the importance of community mobility since his death. The death of Jane's husband was a recurring topic throughout our interview, and it was because of the focus that this event provided that two predominant themes became apparent - the weather as an initiator of mobility change, and the importance of community mobility for meeting social obligations.

Jane's narrative highlights the reasons why weather can initiate mobility change, as well as what potential impact this change has. In addition, Jane's narrative identifies that one of the functions of community mobility is to facilitate the meeting of perceived social obligations. This function is very significant in Jane's life, and the thought of being unable to meet these obligations is very distressing to her.

This section will discuss and analyze these two themes with a focus on Jane's stories and experiences. Contributions from other women that I interviewed will be used to add to depth and breadth to the analysis. These women will be introduced at the beginning of each theme.

Introducing Jane:

Jane is an 80 year old woman who became a widow in March of 1994. She and her husband had been married for 47 years, and since his retirement they had spent virtually all of their time together:

We were never apart. We went out together, everything was together. As I say, he was retired for 16 years, and we were never apart.

Although the death of her husband was unexpected, Jane has found some comfort in knowing that his illness was short and he did not suffer. Over the past few months Jane has been making a concerted effort to meet new people and get involved with others her age:

Since my husband passed away I am doing more because I'm trying to make a life for myself. I just don't want to be stuck in the house for 24 hours a day you know. I realize that I have to get out and meet people and be active you know. I don't think that there is any use of staying here and feeling sorry for myself.

Simultaneously though, Jane described herself in the following way:

Basically I'm a very shy person, I'm not very outgoing and I have a hard time making conversation with people.

Jane was born in England and came to Canada at the age of six. She finished her Grade 8 and then at the age of 16 started work in the printing and bindery business. Jane was never required to take any special training for her work, but rather learned her tasks on the job, and continued to work until she was married at the age of 33. During her marriage, Jane raised two daughters, both of whom still live within an hour's drive of her home in West Kildonan.

Jane described her health in the following way:

I think that it is pretty good. I am only on one medication and at my age there are a lot of people that are on a lot of pills, a lot of medication. All I'm on is like aspirin, just two Entrophen a day and that is just to keep my blood thinned because I had a slight stroke about 2 or 3 years ago. And that is all I am on, so I figure I'm very lucky to be on just that at my age.

Jane is very conscious of maintaining her good health and tries to watch what she eats. She has also recently started to participate in Tai Chi on a weekly basis in order to help her relax and maintain her flexibility.

Jane chose the term "adequately" to describe how her current income and assets were satisfying her needs during our interview, and noted that she must stick to a budget in order to live within her means. Jane was one of only three women in my study who were receiving the guaranteed income supplement to top up their old age security payments. Jane expressed concern over her financial status in the coming year because she knew that her income would be decreasing.

Nevertheless, Jane appeared quite able to participate in all of the activities she wished to do. Besides her Tai Chi, she regularly attends a monthly seniors' luncheon at a local church and meets a group of girlfriends downtown for lunch weekly. She has also started to consider more participation in other seniors' activities:

I did take a little day trip, but it only cost me \$37, like you know with the senior citizens, um, the Manitoba Society of Seniors. Very nice day trip, I really enjoyed it. I mean, you have to remember, I'm just widowed so I haven't really got into a lot of that stuff, whereas next year maybe I'll go on more of their trips.

One of Jane's regular outings is to visit her sister who lives in a personal care facility. Since her sister's behaviour is unpredictable because of Alzheimer's disease, Jane prefers to go together with her niece rather than going to visit her sister alone. Jane's current routine is to drive to her niece's home, and then go with her to the facility. For this trip, Jane covers more than 20 km in total. I commented on the distance she travels for this outing. Jane responded:

It is [a long way to go], and of course if I have to go out by buses it would be quite a trip. And of course, I will have to go by bus pretty soon if I am going to go because I'm going to put the car up for the winter because I don't feel that I want to be going out there scraping windows. I always have a hard job starting it in the winter, backing it out of our back lane, and getting stuck maybe. I don't need that kind of hassle. I'm putting the car up for the winter, probably next month.

Although it may be more comfortable (i.e., warmer) to drive in the winter versus walking or taking the bus, Jane was adamant throughout our interview that driving in the winter was too much of a hassle. For her, taking the bus is a better alternative to wondering if her car was going to start, particularly if she managed to get it away from her home:

I'm concerned about if got it down to the shopping centre and I come out and it won't go. It happened to me before, I have the Motor League, but um, then you have to stand around and you have to wait and it could be a day when it is blizzardy, and you could wait for hours. I don't need that kind of hassle. So I figure that I'm better off to put the car up.

As a result of her concerns, Jane had already started making concrete plans on how she was going to manage her various instrumental activities of daily living, as well as her social outings. For Jane, the impending weather change necessitated a

mobility change for her own piece of mind. Interestingly, unlike many of the other women that I interviewed, Jane was relatively unconcerned about the risk of falling on the ice during the winter. At the same time she did acknowledge problems associated with walking in the winter:

Well it's hard for me in the winter time when I won't be able to take the car. It's hard for me, like when say we get a blizzard or, you know, the streets, some of the streets are hard to walk on you know.

More important for Jane than the street and sidewalk conditions was the cold and the wind. At the time of our interview, she had decided that she would not be making her regular monthly transit outing to visit a friend in the south end of the city over the winter months. She explained:

There is no shelter. I have to go on Carlton Street, there by the Metropolitan Store. There's no bus shelter there. There's nothing there and it could be cold standing there waiting in the wind you know. This will probably be my last trip out there this year because I'm not going to do it when it gets really cold. It's too cold to stand and wait for buses. No, I'm not going to do that.

Theme: Weather

Jane's concerns over her winter mobility were common to many of the other women that I interviewed, particularly those who felt that their health was only fair or those who had a mobility impairment. Some of these women's stories follow, and through them support is given to Jane's theme of the weather as an initiator of mobility change. These women include Sally, Tannis, Yvonne, Betty and Helen. What these other women's stories add to this theme is an understanding of how the weather interacts with other factors such as health, night driving and fear of falling to initiate

mobility change. Please refer to Appendix 12 for personal details on each of these women.

During good weather, Sally (RP/I, B, F) walks or takes the bus for the majority of her community mobility. She walks for her groceries and to the bank, and takes the bus for medical appointments, to go to the pharmacy and to go to the library.

Right now when the weather is nice I go every day to IGA. Walk there and back. It's about seven blocks.

Her ability to walk is curtailed in the winter though because of the cold. Sally has neuritis in her legs secondary to industrial chemical poisoning and finds the cold more than her health can bare. She explains:

Anytime that it is cool I have to keep really warm and wrap my legs. Otherwise if I get a little on the cooler side, then I get stiff and I am not able to walk or talk. So, I have to keep warm all of the time.

As a result:

I have a driver who comes and picks me up and takes me shopping all over. If I want to go to Safeway or Economart, and brings me back. So I pay.

I asked her how she found her driver. She explained:

I used to take taxis, and he was just standing there at the store. He takes people home with groceries. And um, so he used to charge \$3, but I give him \$6.

But even with this change in her mode of mobility, Sally does not go out as much in the winter, and like Jane, makes plans to accommodate her instrumental activities of daily living. During good weather Sally goes out almost daily, in the winter:

Sometimes once in two weeks or once a month. Oh, well, shopping maybe once a month. In fall I buy stuff dried and baskets of fruit so I don't have to go out. You have to plan for yourself, not to wait until other people are helping you. You have to do for yourself.

Like Jane, Sally did not specifically identify icy sidewalks and fear of falling as factors influencing her mobility in the winter. For both of them, the cold and the wind were more significant issues, although for different reasons. These four elements - cold, wind, ice and fear of falling - were raised by numerous women, in various combinations, as factors which interacted and initiated a change in their community mobility.

Tannis (RR/I, B, F) gave up her car for financial reasons but is still able to get around with relative ease. Nevertheless, winter is a major initiator of mobility modification in Tannis' life. In the spring, summer and fall, Tannis walks to many places within her immediate neighbourhood. Part of our discussion about how much she gets out and where she goes to went like this:

- Marcia: If you're going to the Safeway down here, how often are you going?
- Tannis: In the summer more than in the winter so maybe twice a week I go to pick something up, but more for the idea of just getting out than for needing anything.
- Marcia: How often would you go in the winter?
- Tannis: As little as possible.
- Marcia: What would that work out to? Once every two weeks?
- Tannis: Yes, but I wouldn't be walking. Like I would either call my daughter or she would phone me and say, I'm going shopping tomorrow night, do you want to go?
- Marcia: So you never walk down there in the winter?
- Tannis: Oh, I have but only if I'm sure of the footing, only if it's not icy and rutty and stuff like that.

A bit later in our interview, Tannis expanded on the weather, and how it was a factor in her community mobility. Although the above passage identifies a change in mode to cope with the weather, the alternative result was simply to not go:

Well, in the winter time the walking is very bad. I don't like the wind. If there is a north-west wind, uh-uh, I just don't go out. I can, if there is a very high wind, well south winds are usually pretty good right up to about now anyway, and I don't mind the wind as far as just being wind, but cold wind from the north, I just don't want to battle that anymore.

A fall on the ice last year when she was out with her daughter has further reinforced for Tannis the need to be cautious in the winter and to initiate some type of mobility change, whether that takes the form of changing her mode of transportation, or simply not going out. Although she was not hurt,

I really shook myself up.

Tannis was one of only a few women who had actually experienced a fall in the winter, nevertheless, many of them were acutely aware of this risk and were quite fearful of the repercussions of a fall. These fears were particularly evident in the narratives of the women who had some type of mobility limitation to begin with, or who used a walking aid. Two of their stories are provided below.

Yvonne (RR/L, FM, G) uses a cane for walking outside of her apartment. She does not go out into the community very often, but does enjoy going for a short walk around her building to get some fresh air. I asked her if she ever went on these walks in the winter. She responded:

Oh yes I would once and a while as long as it is nice and not slippery. If it is slippery I won't go, but if it is snow fall I'm likely to go because it won't be slippery.

Later, when we were talking about what factors made it difficult to go out, she identified the weather, and said:

If it is slippery I sure won't go anyplace. I'm afraid of falling. So many people fall here you know. And I'm scared silly of falling. I used to hang on to my husband like he'd never believe me. He used to say, do you really have to hang on to me like that? I'd say, yes I do! And he'd say, just pretend that I'm not here and just walk. And I just can't make myself walk on ice. I'm just so afraid.

Betty's (RP/L, FM, F) narrative expands on Yvonne's, and provides an explanation about why these women express so much fear of falling:

In the winter I don't go out that much because after you get to be 70, not that I think that I'm old, but things are, your bones are liable to, you've got to be very, very careful about falling because the last thing that you want is a broken hip or a broken leg. So, actually, you're pretty trapped in the winter you know. Even walking from the back door to the garage, you're liable to slip on a piece of ice and down you go and there you are. So I'm very cautious about things like that.

Even some of the women who drove throughout the year identified changes to their community mobility in the winter time, although the frequency with which they raised this theme was substantially less compared to women who did not drive. In addition, it was not likely to be the weather alone that initiated a mobility change, but rather an interaction of the weather and some other environmental factor. Helen's story provides the clearest example:

Helen (RP/I, D, G), who drives virtually everywhere she goes, observed that winter driving does not bother her, nor does night driving, but the combination of the two will stop her from going out. She highlighted this problem through this story:

I was out the other day, and it was very fine snow, and it snowed all day. I went to Polo Park and did a few odd jobs. But the idea of going

to the potluck supper in Fort Garry, driving in the dark and it was still snowing. No. I decided that it really wasn't wise.

Helen will drive at night when it is necessary, and she will drive when it is snowing. It is the interaction between these two environmental factors that initiate a mobility change for her, and the change translates into staying at home rather than going out.

The stories of Jane, Sally, Tannis, Yvonne, Betty and Helen all provide insight into the theme of weather as an initiator of mobility change. Although the logic behind the change varies - Jane's change is to reduce the hassle of driving and to give her peace of mind, Sally's change is related to the interaction between the cold and her health, Helen's change is related to the interaction between night and winter driving, and the changes made by Tannis, Yvonne and Betty related to their fears of falling - the end results are the same. In all cases, these results are either to change their mode of getting around, to reduce the amount that they go out, or simply not go out at all. It is of interest to note that these two basic strategies are essentially the same ones that Louise and others used to cope with the unpredictable risks of community mobility. This similarity is not surprising since, in many ways, the problems of the winter are also unpredictable risks (i.e., not knowing if the car will start, not knowing if your footing will be secure).

Theme: Social Obligation:

Jane's planned mobility changes for the winter were a focus for a large part of our interview. As we talked she explained to me the various modifications that she

had already arranged in order to get her groceries, pay her bills and see her friends. The one remaining outing for which she was still trying to plan was visiting her husband's grave. It was in this discussion that Jane offered her second major community mobility theme - the importance of mobility for meeting social obligations.

The literature on the transportation and community mobility of older people tends to focus on where people need to go, particularly with respect to instrumental activities of daily living (Ashford & Holloway, 1982; Carp, 1971, 1972; Cutler, 1975; Gant & Smith, 1983; Grant & Rice, 1983; Smith, 1984, 1991; Paaswell et al., 1982). The trips that are typically discussed include going to the grocery store, the bank, various social activities and engaging in volunteer work. At times, references to spiritual needs are made in the form of church or synagogue attendance (Carp, 1971; Cutler, 1975; Grant & Rice, 1983). Based on this literature, I questioned women about going to these "practical" places. Jane's story about visiting her husband's grave raised the issue of meeting social obligations, and how it was a primary purpose in some of the trips that the women in my study made. The importance of community mobility for meeting social obligations is not an area that I have found discussed in the literature.

At one point, when we were talking about the winter and her plans for getting around, I asked Jane, "Where would be the worst place for you to be unable to get to?". Her lengthy response is provided below and highlights how visits to her husband's grave have deep significance for her. These visits, and the wreath that she

hopes to leave, provide her with an opportunity to openly pay respects to her husband and her memories of him:

It's going to be hard for me not to go to the cemetery in the winter-time. Right now, I had a brochure from the cemetery today about a wreath, you know, but now I have to get out there somehow or another to see this wreath. I have a friend that maybe is going to, I don't think that she is going to pick me up, but maybe meet me part way and take me out there. I've only been going out there once a month to put flowers on the grave. Once a month, but um, going with my sister-in-law who passed away. I didn't get out there this month, which I really wanted to. But, um, anyway I was talking to a friend this morning and her husband is out there too. She said maybe we would get out there together, she has a wreath to put on her husband's grave. This brochure I had was to buy a wreath and they are going to have them on display out there, you know. And they will put it on for me, but then I have to make sure that it is off by March 1st. That would bother me a little bit, depending on the weather, if I can't get out there to get it off. But they will keep them for about two weeks, but if you don't claim them after that they just destroy them. I'd like to get out there, because I'd like to keep it for a few years.

I asked Jane if her children would be willing to take her out to the cemetery in the winter-time and she explained that this is one trip they have been unwilling to provide for her:

Both of my daughters don't want to go out to the cemetery. I don't understand. And this lady I was talking to today, her son won't go to the cemetery. I say, what is it with our children that they don't want to pay respects to their fathers? I just don't understand it.

Although Jane was the only woman who talked of going to visit a grave-site as one of her most important as well as routine activities, many other women talked of trips that had the fulfilment of a perceived social obligation as their primary purpose. Most often, these trips were to go and visit a sick family member or friend, attend a wedding, or go to a funeral. The obligatory nature of these trips is apparent through

the guilt that the women expressed when they were unable to make the trip, and through the importance they placed on these trips because they perceived that someone else needed them.

The stories of the Margaret, Fay, Louise, Mary, Yvonne, Wilma and Sara demonstrate this sense of social obligation and the importance of community mobility to fulfill it. Please refer to Appendix 12 for personal details on each of these women.

At 88, Margaret (RP/L, FM, F) was the oldest woman that I interviewed for my study. In August of 1994, her husband was admitted to the personal care home across the street from where she lives, and now she visits him there almost daily. These trips are vitally important to Margaret, so much so that her children have set up a taxi account for her so she can go whenever she wants. Margaret asked me to shut-off my tape recorder when she explained the taxi account to me, and during this period of our interview she also explained why the visits to her husband were so important.

Margaret felt strongly that her husband's visual and hearing deficits made his time in the personal care home very lonely. Therefore, she felt that he needed her and that her visits are providing him with the social interaction he is not getting in his new residence. At the same time, Margaret does not consider her visits as fulfilling her own social needs, nor does she view going to see him as an outing. Later, when Margaret turned the tape recorder back on, our conversation went like this:

- Marcia: Now if you think of an average week, how much are you getting out?
Margaret: How much do you want me to say? None or very little?
Marcia: I don't know.
Margaret: Well, I'll say very little.

Marcia: How much is very little for you? Once a week? Twice a week?
Margaret: Twice a week, I'll say maybe.
Marcia: Now what about all of the visits to your husband?
Margaret: Oh, yes, I don't call them that.
Marcia: That's not, you don't count that as going out?
Margaret: No. It's not an outing. That's something that I do for him because he's not well. It's a duty.

Therefore, these visits, while serving little practical purpose for Margaret are highly important and meet what she senses to be a social obligation to her husband. Her visits provide comfort to him, fulfill his needs for companionship, and allow her to feel that she is meeting her duties to him as his wife.

Fay (RR/I, D, G) also spends a lot of her time visiting in personal care homes, and the nature of her visiting came up when I asked her if she was involved in any volunteer work. She made the following comment in response to my question "Do you do any volunteering?":

Not really, my volunteer work is helping out the neighbours or the old ladies around when they need a lift or this or that. We've got quite a few old friends who are in nursing homes - [names 3 homes]. We try and go and see them a couple of times, or every other month at least, if not every month. And take them for rides and um, that takes up half a day, always. And we have another one out Roblin Boulevard. We have four or five - they're all in different parts of town.

I commented that she was travelling long distances to visit these friends, and Fay agreed. I asked her why she went to all of these places. She responded:

These people who have no transportation and no relatives, to me that's sad. They appreciate it.

Like Margaret's visits to her husband, Fay's visits to see her friends offer companionship. They have all been a part of her life for a long time, and now she

feels some responsibility to fill what she perceives to be a gap in their lives. The way that Fay frames her visits to her friends as volunteer work, rather than a social visit, supports the idea that the purpose of these trips is to fulfill a social obligation rather than meet any of her individuals wants or needs.

This same scenario is found in Louise's (RP/I, B, E) narrative too. She spends two days of every week visiting friends in personal care homes, and considers this time as volunteer work rather than meeting any needs she has in terms of social interaction. Louise speaks of her visits to her friends at the same level as she speaks of doing clerical work for a non-profit health charity:

The [names charity] is strictly clerical work, working on their various programs, working in the office. And the other, I'm strictly visiting in the nursing homes now. Before I was like helping you know, like wash teeth. But I don't do that now.

Furthermore, Louise goes to great efforts to make these visits. One of the trips that she makes every other week takes her nearly two hours to complete by bus, one way. This lengthy period of time that Louise is prepared to spend in order to visit further reinforces the idea of social obligation, and the importance of community mobility to fulfill it.

Similar to Louise, Mary (RP/I, B, G) also spends long periods of time travelling by bus to make a visit in a personal care home. She goes to visit her sister-in-law monthly, and the obligatory nature of her visit is reflected in this comment:

I just go once a month. Well, I promised to go once a month because my husband used to look after her affairs. But now I gave it to the Public Trustee because her sister wouldn't do it.

Before Mary's husband's death, she made the trip to visit her sister-in-law only periodically because he drove out to visit regularly. Now, since his death, Mary feels that she must continue these visits, even though it means one hour by bus each way.

The importance of fulfilling these social obligations became apparent to me through women's responses to my question, "What would be the worst place for you not to be able to get to?" Although a few of the women identified places like the grocery store or the bank, more often the answer related to fulfilling a perceived social obligation. These included such activities as visiting a friend:

I think that to go and visit a friend that was ill, or to the hospital or whatever to visit and you couldn't go, it would be disappointing for me and also for her. I think that that would be the worst. - Sara (RR/I, B, F),

or going to a family function:

The worst place not to be able to get to? I guess it would be to [name of town] to see my daughter because I couldn't get there if she can't get here. And the next place would be to [hometown] in Saskatchewan. You know if I couldn't get to my daughter's it would probably be a family thing and that would be in Saskatchewan. Or a funeral or something like that. - Yvonne(RR/L, FM, G).

Wilma's (RR/L, FM, E) narrative offers a final example of social obligation and the importance of community mobility to fulfill it. Although Wilma used to drive, she has not since her husband's retirement and she does not take the bus alone. Therefore, Wilma is dependent on her husband to provide her with a ride to where she wants to go. Unfortunately, Wilma is unprepared to ask her husband for a ride if she perceives him to be too busy or disinterested in the trip she wants to make. As a

result, she has not asked him to take her to visit a sick friend. Instead she phones her friend daily. I asked her why she called daily and she responded:

I feel guilty because I don't go and visit her.

The stories that have been offered in this section and which relate to social obligation are important because they do not appear to have been discussed in previous research on the community mobility of older people. Nevertheless, it is apparent that these trips are very important to many of the women that I interviewed. They speak of duty, being needed, fulfilling promises and offering companionship to friends or family who have less freedom and social opportunities than they do. The trips are lengthy and consume vast amounts of time, and yet they are done on a regular basis and have become part of weekly or monthly routines in many cases. Not being able to complete these trips make the women feel sad, disrespectful, disappointed or guilty. As a result, it would appear that in the case of fulfilling social obligations, community mobility acts as a tool through which women can meet their obligations and feel good about their contributions to the lives of others.

The Meaning of Community Mobility for Jane:

In reviewing Jane's transcript it is apparent that 1994 has been a year of significant change and transition for her. She has had to cope with the illness and death of her husband, she is working to meet new people and make a new life for herself as a widow, and she has planned for a change in mobility in order to accommodate the winter weather. Throughout all of these transitions she considers

herself to be fortunate to have her health, and to have multiple options for getting around in her community.

For Jane community mobility has facilitated the building of her new life. It has given her the opportunity to participate in Tai Chi, to attend seniors' activities in a local church, and to spend time with her girlfriends, many of whom are also widows. Community mobility, whether by her car or by bus, provides Jane with an escape from the potential confines of her home where, if she is unable to get out, she feels that she is at risk of sitting and feeling sorry for herself.

Near the end of our interview, I asked Jane if being able to move around in the community was important to her. She responded:

Oh, yes. Oh, yes, I hope that I am always mobile.

I then asked her how she would feel if she was unable to get out and move around freely in her community. She said:

Wouldn't feel very good I tell you, no. I think that I would get very depressed.

With these comments, Jane highlights the importance and meaning of community mobility in her life. Like Louise (RP/I, B, E), community mobility offers Jane a means of enhancing her own mental health and sense of well-being. For Jane, community mobility supports her efforts to cope with loss and change.

SUMMARY: COMMUNITY MOBILITY THEMES AND STORIES

Through the use of three integrated case studies, this chapter has introduced, discussed and elaborated on a series of themes that emerged from the interview transcripts of this study. The stories of Louise identified the themes of convenience, risk and personal organization and the additional narratives from other women expanded on them. In relation to the literature review and the initial conceptual model, these three themes appear to represent three different areas of mobility influencers.

First, the theme of convenience appears to both parallel as well as contradict what other authors call housing location, one of the physical environment factors seen to influence community mobility (Appendix 1). The theme of convenience reflects the ease with which the older woman is able to access necessary goods and services (the parallel). Yet, this ease does not necessarily correspond to how close the goods and services are (the contradiction). As a result, based on the findings of this study, it would appear that the factor of housing location does not adequately encompass the issues that are important for the community mobility of older women. Ultimately, it would appear that the factor is more complex than what has been suggested by previous studies.

Second, the theme of risk appears to have parallels to what other authors have labelled as fear, one of the personal factors seen to influence community mobility (Appendix 1). In addition, this theme also supports the suggestion of those authors who identify that perception of the environment can influence community mobility

(e.g., Blades, 1990; Moore & Golledge, 1976). Perception of the environment can be considered as an interaction between personal and structural factors.

Third, personal organization, although not identified in the literature reviewed for this study, is certainly a personal factor in terms of the initial conceptual model. Considering the number of women who spoke of personal organization within their narrative, and the variety of their personal mobility levels and modes, it would appear that this factor is one that requires further study to be fully understood.

The stories of Brenda identified the themes of driving, burden and adaptation. Unlike the themes identified through Louise's case, Brenda's themes all relate to personal factors within the initial conceptual model. Being able to drive was identified in the literature review as a major personal factor that influences an older person's ability to move around in their community (Appendix 1). Brenda's loss of her driver's license, and the resulting isolation, supports the findings of previous studies. The theme of burden, although not directly addressed in the literature that was reviewed for this study, can be seen indirectly, particularly in the work of Paaswell et al. (1982). As noted in the literature review, older people in this 1982 study identified that they would rather travel by public transit than go with friends or family members. Although Paaswell et al. (1982) did not investigate the reason for this view, I wonder, in light of Brenda's theme of burden, whether similar feelings and concerns were held by Paaswell's respondents.

The final theme of Brenda's case - adaptation - is also not identified in the literature that was reviewed for this study. Considering the variety of ways that the

women presented in this theme adapted to changes in their personal mobility, it is reasonable to consider adaptation as an interactive factor as is perception of the environment. Adaption required the knowledge (personal factor) and presence of alternative modes of transportation (structural factor) as well as the willingness to use them (personal factor). Again, finding this theme so prominently in the interviews for this study suggests that further investigation of this interactive factor is warranted.

Finally, the themes of weather and social obligation found in Jane's case provide support to existing literature as well as offer some new knowledge. The theme of weather is identified in the literature as a structural factor (physical environment) that influences community mobility (Appendix 1). The comments of Jane and the other women support this literature and provide some specific information relevant to the Canadian situation, particularly in relation to the winter months.

The theme of social obligation offers a broader understanding of the dimensions of community mobility, and therefore is unlike all of the other themes found in this study. Previous studies on travel patterns and modes (e.g., Ashford & Holloway, 1982; Carp, 1971, 1972; Cutler, 1972) have suggested that older people primarily travel in their communities to pursue self-care activities and leisure activities. The identification of the theme of social obligation suggests that there is at least one other dimension of older people's community mobility. This finding leads one to question whether additional dimensions exist and how these might be sought out through future studies.

CHAPTER 8: CONCLUSIONS

The objectives of this qualitative study were threefold. First, the study sought to describe the nature and importance of community mobility in the lives of older women. Second, it undertook to identify and describe the range of factors which influence this mobility, and what this influence means in older women's lives. Third, the study sought to investigate whether variations in personal skills, community context and perceptions of the environment influence how community mobility has an impact on the lives of older women. The importance of this research from methodological, policy and practice perspectives was introduced and the findings which addressed the objectives were discussed. The summary of relevant literature integrated previous knowledge in the field and identified gaps that this thesis has contributed to filling. The contents of each of the analysis chapters contribute to understanding the community mobility of older women.

The purpose of this final chapter is to summarize the primary findings of the study, offer a modified conceptual model based on these findings, identify the study's limitations and present the research, policy and practice implications of this work.

MAJOR FINDINGS

Based on the data collected, it appears that older women engage in community mobility for four basic reasons. These reasons can be thought of as the dimensions of community mobility:

- 1) To complete instrumental activities of daily living;
- 2) To fulfil needs for social, recreation and leisure participation;

- 3) To contribute skills through volunteer participation; and
- 4) To fulfil social obligations.

It appears that when community mobility problems arise, the number of mobility dimensions in which a woman partakes declines relative to her previous number. For example, prior to losing her driver's license Brenda (RR/L, FM, F) went out to do her shopping and banking, visited friends and attended family functions, weddings and funerals. Now, she goes for long periods without ever leaving her apartment building.

Although Brenda's situation is extreme, other women in this study had similar mobility influencers, for example, physical limitations and an inability to drive (e.g., Catherine (RR/L, FM, G), Yvonne (RR/L, FM, G), Margaret (RP/L, FM, F)).

Exploring the contrast between these women resulted in two of the major findings of this study. The first finding relates to how variations in personal factors influence community mobility. The second finding identifies how adaptation is ultimately an interaction between personal factors and structural factors. Each of these findings is elaborated on below.

Variations in Personal Factors:

The literature reviewed for this study identified that numerous personal factors influenced community mobility (Appendix 1). As a result, personal factors were included in the initial conceptual model for the study and recognized as one of the inputs to a woman's community mobility. Exploring variations in personal factors and how these variations may have an impact on community mobility was an objective of this study.

Upon interviewing the 23 women who participated in this study, it appears that variations in personal factors do influence how community mobility has an impact on the lives of older women. Two personal factors of particular importance appear to be health (in this capacity, physical abilities) and cognitive skills²⁹. Together these two factors appear to interact to facilitate continued community mobility for all of the women in this study, but particularly for women with limited mobility.

Based on the themes identified, it appears that women who are limited in their ability to get around in the community (i.e., have less flexible modes of transportation available to them) must depend to a greater extent on their abilities to adapt, organize and plan in order to ensure continued community mobility. Sylvia's (RR/L, FM, G) conscious use of multiple modes of transportation, reciprocation of favours, and willing accommodation of other people's schedules illustrates how her cognitive skills have allowed her to compensate for those declining physical abilities which could restrict her community mobility. Catherine's (RR/L, FM, G) organization of her errand routes when she travels by taxi, and Gertrude's (RP/L, T, F) active choice of low traffic driving routes provide further examples of how cognitive skills are used to compensate for physical declines which could restrict community mobility.

It is important to note that cognitive skills also play a vital role in the continued community mobility for those women with independent mobility. For these women,

29

In this context cognitive skills would reflect ability to organize and plan, as well as the woman's knowledge of available community resources such as volunteer driver programs, handi-transit and tele-bus.

cognitive skills enable them to plan strategies to manage risk and weather. As a result, their mobility is not restricted to certain times of the day or to certain types of weather.

Therefore, the importance of cognitive skills for continued community mobility is not restricted to those women with limited mobility. Rather, the findings of this study suggest that cognitively based skills are a very important component of community mobility regardless of mode, but that there is a greater need for these skills when personal mobility level is limited.

Furthermore, it appears that as personal mobility levels decline, personal attitudes and willingness to ask for help play an increasingly important role in whether an older woman is able to continue to get out into her community. This point ties into the theme of adaptability as discussed in Brenda's case, and is reflected in the stark differences between her unwillingness to ask for help and Yvonne's (RR/L, FM, G) realization that she needs to ask someone for help if she is unsatisfied with the amount she is getting out. These two women have similar resources available to them in terms of people from whom they can obtain rides, and both have handi-transit cards. Both women require walking aids out-of-doors. Yet, Brenda's unwillingness to ask for help, or accept it when it is offered, has socially isolated her and essentially left her apartment-bound. Yvonne, on the other hand, has made the choice to accept help and chooses to ask for a ride when she feels the need to get out.

Finding that variations in personal factors influences community mobility does not contradict the findings of previous studies, but finding an interaction between physical abilities and cognitive skills does add a layer of complexity to them.

Previous studies (e.g., Iutovich & Iutovich, 1988; McGhee, 1983) have simply identified physical health as a factor influencing mobility, but the findings of the current study suggest that it is not physical health alone, but how one compensates for physical losses through cognitive skills and attitudinal adaptations. As a result, physical abilities, cognitive skills, perceptions and attitudes are intricately woven together to create opportunities for community mobility, as well as to provide the potential for adaptation.

Adaptation: An Interactional Factor

Adaptation was presented as a major theme in the case of Brenda (RR/L, FM, F) and it has been recognized as an important factor in compensating for changes in physical health and abilities. Adaptation has been shown to encompass a variety of distinct strategies such as using multiple modes of transportation (e.g., Yvonne, Sylvia, Catherine), modifying personal schedules (e.g., Sylvia) and reciprocating favours (e.g., Sylvia).

Even those women who are able to move around the city with relative ease (i.e., those with independent mobility) are continuously challenged to adapt in order to continue to be mobile, particularly when they are dealing with weather and risk. Their adaptations are seen in their personal organization, risk management strategies and mobility choices. In particular, these independent women actively seek convenience in order to adapt to changes and challenges in their community mobility.

As a result, the importance of adaptation for continued community mobility became very apparent over the course of this study. Although adaptation requires

some personal skills (e.g., knowledge) and motivation, it also requires a favourable set of structural factors, such as alternative modes of transportation or an environment that does not place additional physical demands on the woman herself. In this respect, adaptation can be viewed as a critical interaction between the personal and structural factors.

The discovery of adaptation, and of adaptation as an interaction, were major findings of this study. Furthermore, these findings ultimately lead to a reconfiguration of the study's initial conceptual model in order to focus on those interactions which create opportunities for community mobility rather than simply the components themselves (e.g., personal factors, structural factors). Prior to presenting this modified conceptual model, a summary of the findings related to perception of the environment and community context need to be addressed.

Perception of the environment

In this study, perception of the environment was considered to be how a woman thought about her neighbourhood and the areas through which she travelled, and the images and interpretations she had in her mind regarding these places and spaces. As previous researchers had suggested (e.g., Berghorn et al., 1978; Blades, 1990) this study did find that perception of the environment influences the community mobility of older women. In particular, perception of the environment was an important factor in determining and choosing the strategies the women used to manage with risk during the day (i.e., minimizing it) versus in the evenings (i.e., avoiding it).

Variations in how perception of the environment had an impact on community mobility was also seen in the choices many of the drivers made about where they were willing to drive. For example, both Jane (RP/I, D, G) and Stella (RP/I, D, F) perceived the downtown traffic as onerous, fast-paced and stressful. As a result, they chose not to drive downtown but instead to take the bus. Linda (RP/I, D, E) also perceived the downtown traffic as a "rat-race". Instead of taking the bus, her perception lead her to avoid going downtown whenever possible.

Interestingly, variations in mobility levels (i.e., independent versus limited) appeared to have little impact on women's perception of the environment and the risks within it. Lack of apparent differences between the two groups was unexpected particularly with respect to risk perception. Some of the women were at less risk than others simply because of their less frequent outings and the fact that they were accompanied on their trips. Nevertheless, all of the women were cognizant of risks, and appeared to perceive risks as increasing in the evenings regardless of whether they went out at this time or not. Therefore, it would appear that strategies, choices and modes of transportation are linked together to create opportunities for community mobility for the women in the study.

Community Context

Community context, for the purpose of this study, referred to the designation of a neighbourhood being resource-rich versus resource-poor. In the literature review, housing location, that is, the proximity of goods and services, was identified as a major factor influencing the community mobility of older people (Appendix 1). The

findings of this study do not support this suggestion but rather that, at least in Winnipeg, variations in community context have relatively little impact on community mobility of older women. Instead, what appears to be more important than housing location or proximity is convenience, for example convenient bus stops and routes, and the availability of free and ample parking. Rather than the proximity of goods and services, it was more important for the women in this study to minimize their need to expend physical energy while obtaining their necessary goods and services. This need did not necessarily translate into using proximal sites.

MAJOR FINDINGS: SUMMARY

Through the process of summarizing the major study findings, it can be seen that variations in personal skills, adaptation and perception of the environment influence the dimensions of community mobility in which a woman partakes. In addition, the importance of the interactions between personal and structural factors for continued community mobility has been emphasized. Furthermore, these findings and interactions provide the opportunity to answer the question about how older women talk about, or frame, their discussions on community mobility.

The women in this study who experienced limited mobility tended to frame their discussions in terms of their health, the role of their family and friends, and their concerns over becoming dependent on other people. Although each of these issues was combined in a different way for each of the nine women with limited mobility, nevertheless, health, family and dependency provided the focus. In this respect

variations in personal factors differentiated the way women with limited mobility talked about community mobility compared to those with independent mobility.

The women with independent mobility can be divided into two sub-groups when considering how they framed their discussions of community mobility. One group can be considered the bus users, and the other group includes the drivers. Although there were women in the drivers group who also took the bus, these two groupings appear to identify the primary differences in the way the women framed their community mobility discussions.

The women who used the bus tended to focus on service system factors as well as those of the physical environment. As a result, variations in structural factors appeared more important to this group than did variations in personal factors in terms of the way they thought about moving around in the city. For the women who drove, the combination of being able to drive and owning a car, framed their discussions.

Ultimately, mode of transportation was the most important factor that differentiated the way the women in this study spoke of community mobility. Mode of transportation appears to differentiate the factors that influenced the way they moved around, the amount that they went out, and the strategies and choices that they made on a daily basis in order to adapt to mobility challenges.

Although the importance of each community mobility dimension and of each individual outing varies across the women, all outings appear to hold some type of meaning for the women interviewed. Examples of these meanings include freedom, independence, mental stimulation, and socialization. As a result, the mobility

dimensions, the importance attributed to individual trips and the meaning of these trips are intricately woven together and create opportunities for community mobility by motivating the women to get out into the community.

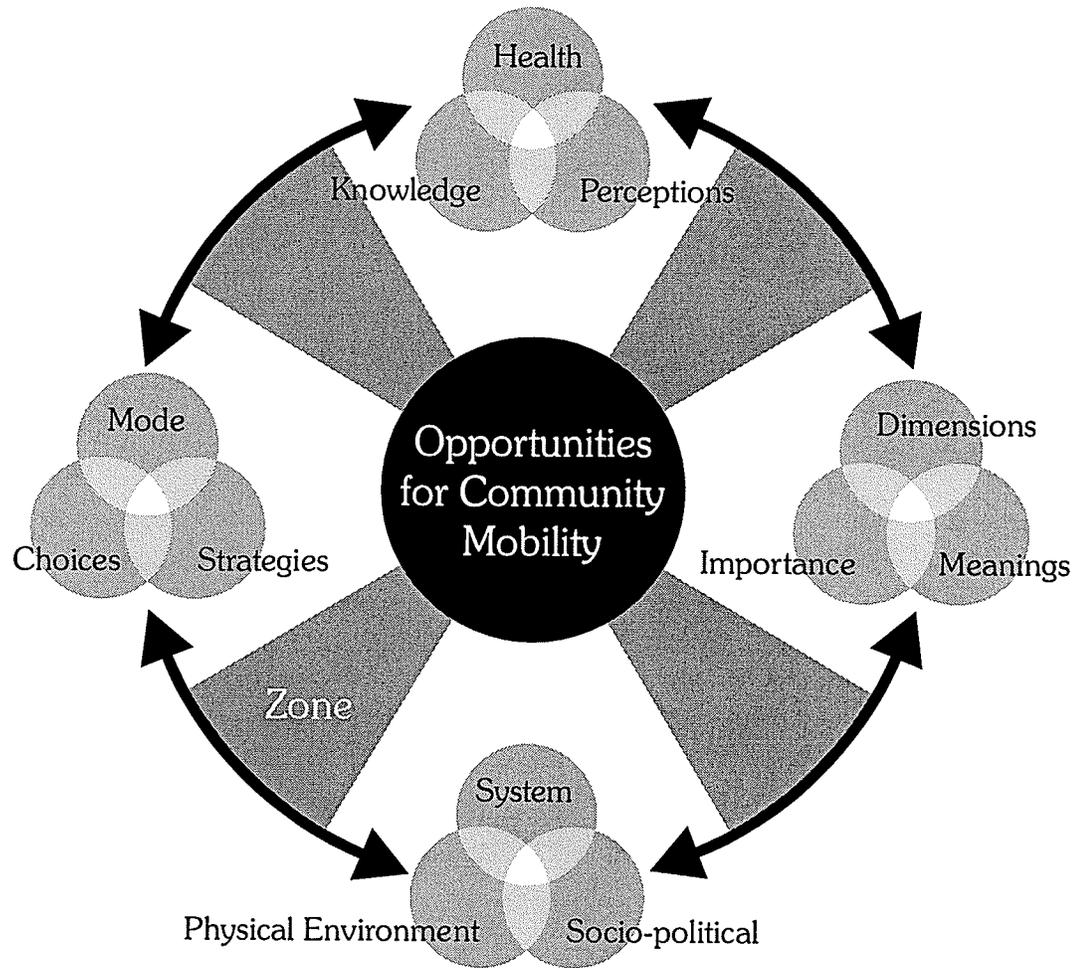
MODIFIED CONCEPTUAL MODEL

Based on the findings of this study, it can be seen that the initial conceptual model for this study does not adequately reflect the importance of interactions and adaptations for older women's community mobility. The initial model, although recognizing the interaction between personal and structural factors, presents community mobility experiences, impacts and meanings linearly. It does not reflect the role of cognitive skills on community mobility, nor the way that attitudes, meanings, choices and strategies are interacting. Neither does the initial model accurately reflect the complexities of structural factors. Furthermore, it does not recognize the importance that external compensatory strategies (e.g., the introduction of low step buses) play in creating community mobility opportunities.

Therefore the model (Figure 7) has been modified in an attempt to reflect the findings of the study and to remediate the shortcomings of the initial model. This modified model presents opportunities for community mobility as the central aspect in order to recognize that even under ideal circumstances, some women choose not to go out (e.g., Stella). Creating or contributing to these opportunities are four components:

- 1) Abilities and perceptions;
- 2) Structural factors;
- 3) Dimensions and values; and
- 4) Strategies.

Figure 7: Modified Conceptual Model



ABILITIES AND PERCEPTIONS:

- Physical *health* and abilities
- Cognitive skills and *knowledge*
- *Perceptions* and attitudes

STRUCTURAL FACTORS:

- *Service system* factors
- *Physical environment* factors
- *Socio-political* factors

DIMENSIONS AND VALUES:

- *Dimensions* of community mobility
- *Importance* attributed to individual dimensions
- *Meanings* that are associated with activities within these dimensions

STRATEGIES:

- Available *mode* of transportation
- *Strategies* used to manage risk and weather
- *Choices* made

Each of these components includes three interacting sub-components which are described in the paragraphs which follow. In addition, the four components are seen to interact with each other through zones of adaptation and compensation. (See Figure 7). More will be said about these zones later in this section.

Abilities and perceptions:

This component is made up of physical health and abilities, cognitive skills and knowledge, and perceptions and attitudes. According to the interviews completed for this study, these three sub-components interact and contribute to creating community mobility opportunities for older women.

Each individual woman requires some abilities to move around independently, whether with or without a walking aid, in addition, she needs to feel that she can manage going out (e.g., that the outing would not result in excessive fatigue). Knowledge of what mobility opportunities were available to them appeared to be important for many of the women, particularly if they did not drive. Knowledge of street systems, location of parking lots, bus routes, etc. appears necessary to be able to move around in the city. Finally, the majority of women needed to perceive the outing as being safe (e.g., not icy and unsafe) and to have an interest and willingness to go out.

Structural Factors:

This component is made up of service system factors, physical environment factors and socio-political factors. These three components interact and contribute to creating community mobility opportunities.

The majority of the older women appear to need service system factors such as tele-bus and handi-transit, as well as transit routing and scheduling to support and facilitate their movement around the city. They also appear to need a favourable physical environment. This physical environment sub-component includes factors such as the weather, proximity to a bus stop, and the size of house numbers among others.

Finally, there is a suggestion that there may be important social constructions which play a part in older women's community mobility, particularly those of gender, aging, disability and accessibility. These constructions have been titled socio-political factors. Although these issues were identified by only a few women and they were not elaborated upon, their identification suggests that this sub-component should be included in the new model. The prominent placement of socio-political factors as suggested by the initial model is not supported.

Dimensions and values:

This component is made up of dimensions of community mobility, the importance a woman attributes to each of the individual dimensions, and the meanings that are associated with the activities within these dimensions. These three sub-components interact and contribute to creating community mobility opportunities for the older women in this study.

The community mobility dimensions - instrumental activities of daily living; social, recreational and leisure participation; volunteer participation; social obligation - identified through this study have been discussed earlier in this chapter, and it can be

seen that for each individual woman the number of dimensions vary. The greater the number of dimensions, the greater the opportunity for community mobility. Part of determining the number of community mobility dimensions is the importance a woman attributes to being able to complete the tasks involved with them. For example, for a number of women in the study social obligations were very important and thereby created opportunities for community mobility.

Finally, the meanings attributed to the various tasks and dimensions in which a woman partakes outside of her home has an impact on her community mobility. The women who were involved in volunteer activities felt that their skills were needed. Those women who participated in club functions enjoyed the social times and the opportunity to visit with friends. Being able to get around and do what they wanted to do, when they wanted to do it, gave the women interviewed a sense of freedom and independence. These meanings contribute to the opportunities for community mobility as they provide the motivation and desire to go out.

Strategies:

The final category which contributes to creating opportunities for community mobility has been titled strategies and it includes the sub-components of available mode of transportation, the strategies used to manage risk and weather, and the choices made about accepting assistance from other people or services.

The flexibility of the mode of transportation used by a woman greatly influences the opportunities that she has to go where and when she wants. In addition, the multiplicity of modes available also plays a role because the more options that are

available, the greater the possibility that an outing will be able to occur. The multiplicity of modes is strongly related to the strategies a woman uses to manage risk and weather. The strategy of many of the women to manage these two potential problems was to change their mode of transportation when they perceived that risks were too great. Other strategies were also employed by the women. It would appear that the more strategies that an individual woman has developed, the greater the chance that she will be able to create opportunities for community mobility.

Finally, the choices a woman makes about accepting assistance or using services such as handi-transit generally has an impact on her community mobility opportunities. In addition, choices about relocation are included in this sub-category. Consider Yvonne (RR/I, FM, G) and her choice to move into a seniors' apartment building that provided meals as well as a small bus which takes tenants to local malls three times per week. These choices have had an impact on her opportunities to get out into the community - having meals has decreased her need to go out grocery shopping, while having the bus has increased her opportunity to go out into the community.

General Comments: Four Components:

Each of the sub-components identified in the above paragraphs are seen as being dynamic and constantly changing. Many of the women, particularly those with arthritis, noted that some days they felt healthy and were able to go out while other days they were unable to do so. As well, tasks and dimensions change over time as do the meanings that the women appear to attribute to them. Diane (RR/I, D, G) spoke of

being very involved in volunteering up until recently when she decided that it was time to move onto other activities. As a result, this dimension of community mobility was less necessary and important in her life. Tannis (RR/I, B, F) spoke of feeling unsafe downtown one night while waiting for the bus. This experience resulted in a change in her perception, and therefore lead to her choice not to go out at night alone.

This constant change can be represented by changing the size of the circles which represent each of the sub-components. This size change influences the size of overlap between the sub-components - the larger the overlap, the greater the opportunities for community mobility experiences. The smaller the overlap, the more limited are these opportunities, and the greater is the need to adapt or find external compensators. As a result, it can be seen that the sub-components are interacting, and in addition, each of the components themselves are interacting with each other. The interactions between the components are represented by the zones of adaptation and compensation in the new model (See Figure 7).

Zones of Adaptation and Compensation:

Tying together the components of abilities and perceptions, structural factors, dimensions and values, and strategies are the zones of adaptation (internal process) and compensation (external process). These zones recognize the importance of change for continued community mobility. Furthermore, these zones suggest that some degree of interaction between personal and structural factors is necessary for successful adaptation and compensation. As a result, interventions to create

opportunities for community mobility need to occur at both personal and structural levels.

Numerous examples of this interactive, internal-external adaptation and compensation can be found in stories of the women who participated in this study. For example, the physical declines experienced by Yvonne (RR/L, FM, G) have been made less significant by her choice to move to a seniors' apartment, to accept help from her daughter, and to use handi-transit. Each of these internal processes (decisions) has facilitated her continued community mobility. In addition, Yvonne's community mobility has been supported by the existence of the handi-transit program, and the provision of a van service by the apartment building in which she lives.

For Jane (RP/I, D, G), the death of her husband has meant changes in her life. The opportunities she has to get around have been maintained or increased by her choice to use multiple modes, her choice to become more involved with social activities, and the importance and meaning that she attributes to continuing to do things for herself. Her community mobility is supported by the existence of the tele-bus system and the availability of printed bus schedules which supplement the driving of her car.

A final example of how important change is for continued community mobility can be found in the stories of both Sara (RR/I, B, F) and Tannis (RR/I, B, F). Both women are former drivers who chose to stop driving. Currently, their community mobility is facilitated by their knowledge of the city bus routes, and their motivation to get out and be with friends. Although both women have difficulties with the high bus

steps, the increasing numbers of low step buses available in the city is compensating for their declining physical ability to comfortably enter and exit buses.

The examples of these four women illustrate how the zones of adaptation and compensation shift and change to facilitate community mobility, and ultimately create opportunities for these women to get out and move around in their communities.

While recognizing the importance of adaptation and compensation, what remains unknown from this study is the extent to which one of the components can adapt or compensate for another. Questions remain about whether one component or sub-component must be a particular "size", or if there is a minimum or maximum that any one component or sub-component can contribute to creating community mobility opportunities for older community-dwelling women.

MODIFIED MODEL: SUMMARY

The conceptual model (see Figure 7) for this study now identifies four components, each with three interacting sub-components. Each of the sub-components is represented by a circle which can change in size or proximity relative to the others in its group. These changes have an impact on the contribution that the component is able to make to the community mobility opportunities created for an individual woman. The use of the term *opportunities* is meant to reinforce that having a chance to go out does not necessarily equate to going out into the community. Zones of adaptation and compensation reflect the dynamic nature of community mobility, and identify that there are many points of intervention that can be attempted to maintain or improve the opportunities older women have to move around in the

community. Although questions remain about the community mobility of older women based on this model, it reflects the issues discussed by the women participating in this study. As well, it addresses the linear limitations of the initial conceptual model.

STUDY LIMITATIONS AND METHODOLOGICAL ISSUES

In retrospect, a number of comments can be made about the limitations and methodological issues raised by this study particularly with respect to sampling, attempts to explore broad socio-political influences on community mobility, the process and methods used to explore the nature of older women's community mobility, and the lack of importance regarding community context for community mobility.

Sampling:

The complexity of the sampling process was very time consuming and labour-intensive, primarily because of the age of the living arrangements data base. In addition, the use of this nine year old data base may have contributed to the difficulties I had in locating women with limited mobility. The majority of the women that were located for this study, and subsequently interviewed were still living in their own houses. Twelve of the women had been residing in the same house for at least 30 years. Only four of the women interviewed had been in their current residence for less than 5 years.

As a result, the use of the data base may have systematically biased this sample against women with limited mobility. Since women with limited mobility are more likely to have moved in the intervening years to compensate for their decreased

physically abilities, they were also less likely to have been located for this study.

Women that continued to live in their own houses, because they were physically able to do so, were easier to find. This observation is supported by the fact that the only women in the study who had moved in recent years had limited mobility, and they had all moved because of this physical decline.

Attempting to Engage Socio-Political Issues:

A major methodological issue that emerged over the course of this research project was how to engage older women in discussions of socio-political influences on their community mobility. As a result, this study was limited in its ability to explore broader mobility influencers such as age and gender.

Although questions in the interview guide were specifically designed to provide women with the opportunity to express their views on socio-political factors, they rarely engaged in this topic. This is likely due to a number of factors including the study's focus on individuals versus politically active seniors' groups, and the women's focus on the here-and-now versus what difficulties they may encounter in the future with their mobility.

The apparent unwillingness of the women to engage broader social issues may be a reflection of different frames of reference between them and me, as the interviewer. Perhaps the questions were not worded in a way that facilitated their expression of socio-political opinions. As a result, it was difficult to access the women's ideas and opinions on larger issues that may be influencing their community mobility. In this respect, it might have been beneficial for me to have had greater

historical knowledge prior to developing the questions so that they could have been phrased in such a way as to enable women to engage the topic within their frame versus my own. The work of J. Gubrium (1993, 1995) encourages gerontological researchers to seek historical knowledge, both specific to their individual participants as well as more generally so that the context of the participants' lives can be better understood.

In addition, the use of focus groups in the research design might have facilitated the extraction of socio-political opinions. This method might have been useful to develop the questions for this part of the interview guide to ensure appropriate wording (Stewart & Shamdasani, 1990). Alternatively, a focus group might have been used to bring together individual interviewees to discuss socio-political issues in a more in-depth way (Stewart & Shamdasani, 1990). Talking among a group of peers may have allowed some of the women to feel more comfortable expressing their opinions and ideas about potential socio-political influences on their community mobility.

Process and Methods used to Explore the Nature of Community Mobility:

One of the primary limitations of this study with respect to understanding the nature of community mobility was its dependence on recall and the process of asking each woman to describe her typical week. For some women, a week was not a long enough time over which to consider their travel activities. Many of the women reported regular monthly outings, and it is expected that many other women simply did not mention these trips since I asked them to describe a "typical" week.

A second limitation related to the nature of community mobility was my inability to get a sense of the multiplicity of a trip, or how many stops along the way a woman would make on a particular outing. Data from a recent study in Winnipeg suggests that many older people are making in excess of three stops during every community outing they take (G. Smith, personal communication, May 8, 1995). Knowing this type of information is important, particularly from a policy perspective, as it may have an impact on eligibility criteria for special transit services as well as route planning for general public transit. From a rehabilitation perspective, this information would have implications for the inclusion of problem-solving and planning activities in preparation for discharge for some clients.

To deal with the problem of recall and to obtain information on the multiplicity of trips a future study may wish to have participants complete daily travel diaries. This method was used in a recent study looking at the daily travel activity patterns of older people in Winnipeg (G. Smith, personal communication, April, 1994). For my study, such a method could have been modified to not only record outings into the community, destinations and mode of transportation, but could have also included a space for participants to reflect on their feelings about their outing. Such an approach may have gathered additional data on the importance and meaning of particular outings, as well as minimized the limitations noted above. Using diaries risks increasing respondent burden, and therefore the use of this method would need to be carefully considered.

The final issue raised by this study that relates to the difficulties in exploring the nature of community mobility with women who represent the extremes of ability to move around (e.g., drivers and women with mobility impairments). One of the observations of this study was how both of these groups of women had difficulty identifying what made it easy or difficult for them to move around in the city. For different reasons, both groups of women had limited experience on which to draw to respond to the questions. In a similar way to probing for socio-political issues and opinions, this problem raises the question about the extent to which a researcher should probe for mobility influencers. At what point does a probe interfere with a woman's actual opinions about what influences her mobility? How much weight should a researcher place on the influences that women identify based on their observations of others versus their own experiences?

In considering these questions, the use of travel diaries may also be helpful. One of the problems women had in responding to the mobility influencers questions was that they had not given these issues much consideration. Therefore, perhaps having study participants record their travels over a set time period including their associated frustrations and aids might help them to consider these issues more carefully during an interview situation. Once again though, the use of diaries would likely increase respondent burden. In addition, the researcher would need to consider ways of ensuring that the diaries were filled out properly, as well as what to do with those that were incomplete.

Closely related to probing for mobility influencers are the issues of accessibility, disability and old age. Throughout the narratives of the women in the study, particularly those who were independently mobile, it appeared that many of them linked these concepts together. Many of these women separated themselves from other older people as they spoke. Few of the women referred to themselves as a senior, and many of them, particularly the women who drove and/or got out frequently, would refer to the "old ladies down the street" (Fay (RR/I, D, G)) or the "poor old dears" (Sara (RR/I, B, F)). Unfortunately, the design of the questions in this study did not allow full exploration of these apparent links and therefore a full analysis was not possible. Nevertheless, it would appear that social constructions of accessibility, disability and old age are linked in some way. Exploring these possibilities would be an interesting future study since the findings may have implications for the way programs and services are presented to older people, particularly those who continue to live independently.

Variations in Community Context

Based on the findings of this study, it would appear that variations in community context do not influence how community mobility has an impact on the lives of older women in Winnipeg. The limitation of this study in exploring the potential influence of community context though is three-fold.

First, none of the women in the study lived in the core area of the city. Living in this area has been shown to influence the patterns of grocery shopping behaviour of older Winnipeggers living in seniors' apartment buildings (Smith, 1984, 1991).

Second, none of the women in this study lived in one of the new suburban areas of Winnipeg. All of them lived in well-established residential areas and the majority of them had lived in their homes for an extended period of time. This residential stability may be playing a role in the results since all of the women had well-established patterns of community mobility. Third, only one city was used for this study, and therefore the apparent irrelevance of community context may simply be an artifact of doing the study in Winnipeg. Perhaps the size of the city enables older women to travel more extensively out of their own neighbourhoods, therefore a larger city may show different results.

IMPLICATIONS OF FINDINGS

The findings of the study, the modified conceptual model and the study limitations and methodological issues identify many questions and issues for policy and practice as well as for future research.

Directions for Future Research:

Although this study has addressed many questions, it has also identified many others that could be explored in future studies. These questions relate to three broad areas - the modified conceptual model, the socio-political influences on community mobility, and the nature of community mobility for women who represent the extremes in ability to move around (i.e., very restricted, very independent).

Questions from the Model:

The modified conceptual model presented on page 213 is supported by the narratives of the women interviewed for this study. It is unknown to what extent this

model applies to other older women, particularly those living in other cities, or alternatively in small towns or in rural areas. Does living in a community without a public transportation system change the components of the model? Does such an environment mean that compensation is less relevant for continued community mobility?

Additional questions that are raised from the model relate to the individual sub-components. Are some of these sub-components more important than others? Does this importance vary over time, and if so, why?

Finally, does this model apply to other population groups besides older women who are similar to those interviewed for this study? For example, does the model reflect the process of creating community mobility opportunities for older men or young people with disabilities? Does it reflect the process for older people who have recently immigrated to Canada? Many similar questions can be asked of this model.

Ultimately, the model that emerged needs to be tested to see if it has broader applicability. Although it appears to fit well with the experiences of the 23 women interviewed for this study, the usefulness of the model can only be determined through further explorations regarding the process of community mobility, including qualitative, quantitative and mixed method studies.

Questions Relating to Socio-Political Influences

In the previous section of this chapter, methodological issues were raised regarding the exploration of socio-political influences on the community mobility of older women. Future studies may wish to explore these potential influences as well as

try to determine if there is a better way to ask participants for their socio-political opinions. Does the method used influence how participants respond to socio-political questions? Does one method or a particular combination of methods offer a more comprehensive understanding of the issues and potential influences on community mobility? Are there differences between age groups, or between women and men, in terms of the best the method(s) to use to gather this type of information?

Questions Relating to the Very Restricted and Very Mobile:

The final set of questions that have been raised from this study involve those women who refused to participate in the study. Although it will never be known to what extent these women can or cannot get around in their communities, and what factors influence their community mobility, their reasons for not participating raise some important questions.

First, for those women who refused to participate because they were not well and therefore not going out, questions can be raised about whether there are limits to adaptation and compensation in terms of creating opportunities for community mobility. Do such limits exist? If so, are there "risk" factors that can be identified prior to those limits being reached to enable exploring appropriate interventions?

Second, for those women who refused to participate because they drove and therefore felt that they had nothing to offer, questions can be raised about how the possession of a driver's licence contributes to an older person's feelings of independence. In addition, what are the factors that lead up to an older person giving

up their licence? How does this decision have an impact on their feelings of independence? Is this impact different if the licence is taken away?

Another set of questions can also be asked regarding the community mobility of the very mobile with respect to the structural factors that facilitate their mobility. For example, are there particular features of a street system that make it easier for an older person to continue to be able to drive? Are there features that have an impact on their accident rates (e.g., merging lanes)?

Finally, only one woman refused because her husband was not well. Although there is extensive literature on caregiving and its impact on the care-providing spouse (e.g., Ade-Ridder & Hennon, 1989; Biegel & Blum, 1990), it would be interesting to specifically explore how caregiving responsibilities have an impact on the process of community mobility for these women. How does caregiving influence community mobility experiences and opportunities? What happens when the receiver of care is the principle driver in the home?

Policy Implications:

The importance of convenience for the community mobility of older women in this study suggests a range of potential policy implications in the sectors of housing and transit. The women who identified convenience issues in their narratives focused on routing, parking and minimizing their need to expend physical energy. The identification of these issues suggest that housing projects for seniors many want to consider bus routing and the accessibility of the building to driving routes rather than simply proximity to grocery stores and other goods and services. In addition, when

senior's housing projects are being developed for a specific area or ethnic group or neighbourhood, consideration of the potential tenants' established travel routes may be desirable along with the potential for altering existing routes. Ultimately, decisions on where to locate housing projects need to take into consideration travel patterns of older tenants. New bus routes and schedules need to consider the physical demands that the changes will place on the older ridership.

The findings also suggest that although there are benefits to providing a full range of services to older tenants within the confines of their apartment building, there may also be disadvantages in terms of minimizing the need for people to go out into their communities. As a result, it appears that the pros and cons of providing full services needs to be carefully weighed.

Transit policy implications stemming from this study relate to bus design, handi-transit service priorities and the way the buses are driven. With respect to bus design, the women in this study agreed that the low step buses made their ability to get around easier and less physically demanding. This finding supports Winnipeg Transit's move to purchase more of these buses. Medical appointments, work and school are currently the priorities for handi-transit services. Based on the findings of this study, it would appear that these three priorities do not match the community mobility dimensions of older women, especially their need to shop, bank, pay bills, fulfil social obligations, as well as to socialize. Considering that this group represents a high proportion of handi-transit riders, further consideration of their community mobility needs appears necessary. In making this statement it is recognized that

balancing the needs of the users and the available funding does create many challenges.

In terms of policy relating to seniors' services development, the findings of this study illustrate how important the linkages are between housing and seniors' support services. Many of the implications for the housing sector, most notably the provision of multi-service seniors' apartment buildings, also relate to seniors' services development.

Beyond these implications, this study can offer few direct policy implications for seniors' services development since only three of the women interviewed were members of a seniors' centre, and none of them used a volunteer driver service, or a wheels-to-meals program. This lack of involvement in seniors' programming may be an artifact of the sampling frame and its bias toward healthier older women. Nevertheless, the findings of the study do suggest that being able to move around in the community does have an impact on older women's sense of freedom and independence. In addition, many of the women interviewed identified that they had difficulty asking for assistance. Considering these findings, it would appear that seniors' programs need to consider the degree to which their services provide freedom of choice, and whether using the service is perceived as asking for help. It would appear from the participant's comments that services that offer choice, and that are not perceived as giving help, may facilitate maintenance and independence in the community.

Practice Implications:

Considering that the basis for this research project came from my own experience working as an occupational therapist, it is important that implications for the practice of my profession be addressed. In addition, because occupational therapists typically work within the context of a team, many of the practice implications may have relevance for physiotherapists, nurses, social workers and home care coordinators.

The primary practice implications stemming from this study relate to hospital discharge planning, premature personal care home placement from hospital or community, and the use of home care services. Although changes to practice cannot be based on one study, the findings do raise important questions about how discharge planning tends to proceed and whether some refocusing needs to be considered in this process.

Based on the professional experiences which lead me to complete this research project, and the comments of the women regarding the impact of community mobility on their lives, it would appear that occupational therapists and other health and social service workers should be giving more time to community mobility issues in the course of hospital discharge planning. Furthermore, it would also appear that those community workers who follow-up clients immediately following discharge should be ensuring that community mobility opportunities are available. If these opportunities are not available, multiple avenues for intervention are available if one considers the modified model that has been presented in this chapter. Within this model, different

professional groups are likely to be able to find an area(s) in which their particular set of skills are best suited for potential intervention. For example, social workers may work to assist an older woman to view the acceptance of help in a positive way rather than a negative one; tenant resource workers may work with new tenants to help them obtain needed knowledge about available transportation options and services; and occupational therapists may work with older women to help them develop strategies to manage a variety of community mobility challenges including risk and weather.

In the process of discharge planning and/or trying to maintain an older person in the community, it is not uncommon for health and social service workers to recommend relocation. In making such a recommendation, multi-service seniors' apartment buildings are frequently the sites of choice for the older person who is struggling to maintain themselves independently. These sites are chosen because they offer a variety of services, often including meals programs, convenience stores and social and leisure activities, on-site. The underlying assumption is that it is good for the older person to have these services close-by. Yet, the findings of this study suggest that presence of resources may not be the best criterion when assisting an older woman to choose a new home. Perhaps convenience of resources based on known travel routes and the physical demands associated with obtaining goods and services needs to be more carefully considered.

This suggestion would mean that workers would not only need to be aware of the presence and location of the resources needed by the person with whom they are working, but also the mode of transportation she will be using upon entering a new

residence. As well, workers would need to increase their knowledge regarding the transportation services available in various areas in the city and the eligibility criteria for their use, particularly in relation to the dimensions of their client's community mobility, for example, social obligation.

The importance of community mobility for fulfilling social obligations was a important theme in this study. Currently there is a push in many of the professions to become more active at the community level, and to advocate on behalf of clients for services that will facilitate their continued independent living (Health Canada, 1995; Law, 1991; Letts, Fraser, Finlayson & Walls, 1993; Townsend, 1992). The findings of this study suggest that workers may wish to become more knowledgeable about how transportation routing and eligibility criteria are being set so that if the needs of older women are being neglected, appropriate and responsible actions can be taken.

Ensuring that transportation services are meeting the needs of people who are at risk of becoming home-bound may also require stronger linkages between the professional organizations, groups of politically active seniors and volunteer groups. When considering large socio-political issues such as transportation, facilitating change means social action versus individual advocacy (Multiple Sclerosis Society - Ontario Division, 1993).

IMPLICATIONS: SUMMARY

Although the completion of this study addressed the research objectives, it also identified a series of research, policy and practice questions. Changes in each of these areas is not justified based only on this study because of its small size, nevertheless,

the questions raised do appear to require further consideration. In future studies researchers may wish to explore the model from this study in greater detail, or consider the use of biographical or historical methods in order to access the socio-political concerns and issues of older women. These studies might also include the use of diaries as a way of encouraging older women to reflect on the factors that have an impact on their daily travel. Furthermore, these studies might wish to explore the community mobility issues of older women who are very mobile or very restricted in their ability to move around.

To address issues related to policy and practice, perhaps researchers mounting future studies might consider developing pilot projects and evaluating them, or alternatively to evaluate existing programs and services that seek to assist older women to remain independent in their own homes.

CONCLUSION: THE IMPORTANCE OF COMMUNITY MOBILITY

This qualitative study explored the process of community mobility in the lives of 23 older women aged 69 to 88 living in the City of Winnipeg. The findings clearly indicate that community mobility is important to older women, and that each woman needs to be able to move around in her community to some degree. Although this amount varies, ultimately, getting out provides women with a sense of independence and freedom. Based on the women's narratives, it appears that community mobility has an important impact on older women's mental health. Women who were able to get out frequently identified positive feelings such as freedom and independence.

Women who had limitations placed on their mobility expressed feelings of loneliness and resignation to their situation.

Community mobility offers older women opportunities to be with other people, to stimulate their minds and to learn new things. My exchange with Connie (RP/I, B, E) best illustrates the importance of community mobility for older women:

- Marcia: What does getting out offer you?
Connie: Well, it offers me different interests. It offers me new people. I could have them here, but I couldn't have the variety of people here that I could meet when I'm out.
Marcia: Is there anything else?
Connie: No, it's the variety that it offers. There's more variety when you're out of your house.
Marcia: Is that good?
Connie: Oh yes, life would be very boring without variety.

Community mobility is more than simply getting from one place to another. It is the spice of life.

REFERENCE LIST

- Ade-Ridder, L. & Hennon, C.B. (Eds.). (1989). Lifestyles of the elderly: Diversity in relationships, health and caregiving. New York, NY: Human Sciences Press.
- American Psychological Association. (1983). Publication manual of the American Psychological Association, third edition. Washington, DC: Author.
- Appleyard, D. (1970). Styles and methods of structuring a city. Environment and Behavior, 2 (1), 100-117.
- Ashford, N. & Holloway, F.M. (1972). Transportation patterns of older people in six urban centres. The Gerontologist, 12, 43-56.
- Berghorn, F.J., Shafer, D.E., Steere, G.H. & Wiseman, R.F. (1978). The urban elderly: A study of life satisfaction. Montclair, New Jersey: Allanheld, Osmun & Co. Publishers, Inc.
- Bergner, M. & Rothman, M.L. (1989). Health status measures: An overview and guide for selection. Annual Review of Public Health, 8, 191-210.
- Biegel, D.E. & Blum, A. (1990). Aging and caregiving: Theory, research and policy. Newbury Park, CA: Sage Publications.
- Blades, M. (1990). The reliability of data collected from sketch maps. Journal of Environmental Psychology, 10, 327-339.
- Blaut, J.M., McCleary, G.S. & Blaut, A.S. (1970). Environmental mapping in young children. Environment and Behavior, 2 (3), 335-349.
- Borland International. (1993). Quattro pro for windows, version 5.0. Boston, MA: Houghton Mifflin Co.
- Bowe, F. (1983). Accessible transportation. In N.M. Crewe, I.K. Zola & Associates (Eds), Independent living for physically disabled people, (pp. 205-218). San Francisco: Jossey-Bass Publishers.
- Bowe, F. (1979). Transportation: A key to independent living. Archives of Physical Medicine and Rehabilitation, 60, 483-486.
- Brewer, J. & Hunter, A. (1989). Multi-method research: A synthesis of styles. Newbury Park, CA: Sage Publications.

Campbell, D.T. & Stanley, J.C. (1966). Experimental and quasi-experimental designs for research. Boston, MA: Houghton Mifflin Co.

Canadian Association of Occupational Therapists. (1991). Occupational therapy guidelines for client-centred practice. Toronto: C.A.O.T. Publications ACE.

Canadian Association of Occupational Therapists. (1983). Occupational therapy guidelines for client-centred practice. Toronto: C.A.O.T. Publications ACE.

Carmines, E.G. & Zeller, R.A. (1979). Reliability and validity assessment. Sage University Papers 07-017. Beverly Hills, California: Sage Publications.

CARNET: Canadian Aging Research Network of Centres of Excellence. (1994). Travel patterns of Manitoba seniors (Special Report). Winnipeg, Manitoba: Centre on Aging, University of Manitoba.

CARNET: Canadian Aging Research Network of Centres of Excellence. (1993). Seniors' neighbourhood preferences. University of Manitoba data (unpublished).

CARNET: Canadian Aging Research Network of Centres of Excellence. (1991). Group A: Market needs of the elderly. Winnipeg, Manitoba: Centre on Aging, University of Manitoba.

Carp, F. (1972). Mobility among members of a retirement community. The Gerontologist, (Spring), 48-56.

Carp, F. (1971). Walking as a means of transportation for retired people. The Gerontologist, (Summer), 104-111.

Cutler, S.J. (1975). Transportation and changes in life satisfaction. The Gerontologist, 15, 155-159.

Cutler, S.J. (1972). The availability of personal transportation, residential location, and life satisfaction among the aged. Journal of Gerontology, 27 (3), 383-389.

Cutler, S.J. & Coward, R.T. (1992). Availability of personal transportation in households of elders: Age, gender and residence differences. The Gerontologist, 32 (1), 77-81.

Doyle, C. (1980). Transport handicap: Its causes, its scale and its effect. International Disability Studies, 10, 84-85.

Eisenhandler, S.A. (1990). The asphalt identikit: Old age and the driver's license. In B.B. Hess & E.W. Markson (Eds), Growing Old in America (4th edition), (pp.104-120). New Brunswick, USA: Transaction Publishers.

Evans, G.W., Brennan, P.L, Skorpanich, M.A. & Held, D. (1984). Cognitive mapping and elderly adults: Verbal and location memory for urban landmarks. Journal of Gerontology, 39 (4), 452-457.

Gale, N., Golledge, R.G., Pellegrino, J.W. & Doherty, S. (1990). The acquisition and integration of route knowledge in an unfamiliar neighbourhood. Journal of Environmental Psychology, 10, 3-25.

Gant, R.L. & Smith, J.A. (1988). Journey patterns of the elderly and disabled in the Cotswolds: A spatial analysis. Social Science and Medicine, 27 (2), 173-180.

Gärling, T. (1989). The role of cognitive maps in spatial decisions. Journal of Environmental Psychology, 9, 269-278.

Golant, S.M. (1984a). Factors influencing the nighttime activity of old persons in their community. Journal of Gerontology, 39 (4), 485-491.

Golant, S.M. (1984b). Factors influencing the locational context of old people's activities. Research on Aging, 6 (4), 528-547.

Grant, P.R. & Rice, B. (1988). Transportation problems of the rural elderly: A needs assessment. Canadian Journal on Aging, 2 (3), 107-124.

Gubrium, J.T. (1995, May). Active storytellers: Doing the past to explain the present. Paper presented at the Centre on Aging Spring Symposium, Winnipeg, Manitoba.

Gubrium, J.T. (1993). Speaking of life: Horizons of meaning for nursing home residents. Hawthorne, New York: A. de Gruyter.

Gurian, B.S. (1992). Transportation as outreach, driver as mental health worker. The Gerontologist, 32 (4), 561-562.

Hassard, T. (1991). Understanding biostatistics. St. Louis, Missouri: Mosby-Year Book, Inc.

Health Canada. (1995). Working together for health: Strategies for today and tomorrow (Cat. No. H21-119/1995). Ottawa, Ontario: Minister of Supply and Services Canada.

Henderson Directories. (1993). 1993 Winnipeg Manitoba city directory. Winnipeg, Manitoba: author.

Holahan, C.J. & Dobrowolny, M.B. (1978). Cognitive and behavioral correlates of the spatial environment: An interactional analysis. Environment and Behavior, 10 (3), 317-333.

Iutovich, J.M. & Iutovich, M. (1988). Assessment of the transportation needs of Pennsylvania's elderly population. The Journal of Applied Gerontology, 7 (4), 514-529.

Jackson, O.S. (Ed.). (1989). Physical therapy of the geriatric client. New York: Churchill Livingstone.

Joesph, A.E. & Fuller, A.M. (1991). Towards an integrative perspective on the housing, services and transportation implications of rural aging. Canadian Journal on Aging, 10 (2), 127-148.

Kaufman, S.R. (1994). In-depth interviewing. In J.T. Gubrium & A. Sankar (Eds.) Qualitative methods in aging research, (pp. 123-136). Newbury Park, CA: Sage Publications.

Kirby, S. & McKenna, K. (1989). Experience, research, social change: Methods from the margins. Toronto: Garamond Press.

Kramer, M.S. (1988). Clinical epidemiology and biostatistics: A primer for clinical investigators and decisions-makers. Berlin, Germany: Springer Publishing.

Law, M. (1991). Muriel Driver Memorial Lecture - The environment: A focus for occupational therapy. Canadian Journal of Occupational Therapy, 58, 171-179.

Ladd, F. (1970). Black youths view their neighbourhood: Neighbourhood maps. Environment and Behavior, 2 (1), 74-99.

Lawton, M.P. (1986). Environment and aging. Albany, New York: Centre for the Study of Aging.

Letts, L., Fraser, B., Finlayson, M. & Walls, J. (1993). For the health of it: Occupational therapy within a health promotion framework. Toronto: C.A.O.T. Publications ACE.

Liben, L.S. (1981). Spatial representation and behavior: Multiple perspectives. In L.S. Liben, A.H. Patterson & N. Newcombe (Eds), Spatial representation and behavior across the life span, (pp. 3-36). New York: Academic Press, Inc.

Manitoba, Division of Research, Planning and Program Development. (1973). Aging in Manitoba: Needs and resources, 1971 (10 volumes). Winnipeg, Manitoba: Manitoba Department of Health and Social Service Development.

Manitoba Health. (1993-94). Annual report. Winnipeg, Manitoba: Government of Manitoba.

Manitoba Council on Aging. (1993). Manitoba senior citizens' handbook. Winnipeg, Manitoba: Manitoba Health.

Manitoba Highways & Transportation, Driver and Vehicle Licensing. (1993). Driver, vehicle and traffic collision statistics report. Winnipeg, Manitoba: author.

Manitoba Telephone System. (1994). City of Winnipeg telephone directory. Winnipeg, Manitoba: author.

Manitoba Telephone System. (1994). City of Winnipeg yellow pages. Winnipeg, Manitoba: author.

Manitoba Telephone System. (1994). The who called me? directory. Winnipeg, Manitoba: author.

Marshall, C. & Rossman, G.B. (1989). Designing qualitative research. Newbury Park: Sage Publications.

Marshall, V.W., McMullin, J.A., Ballantyne, P., Daciuk, J.F. & Wigdor, B.T. (1994). Contributions to independence over the adult life course. Toronto, Ontario: Centre for Studies of Aging, University of Toronto.

McDowell, I. & Newell, C. (1987). Measuring health: A guide to rating scales and questionnaires. New York: Oxford University Press.

McGhee, J.L. (1983). Transportation opportunity and the rural elderly: A comparison of objective and subjective indicators. The Gerontologist, 23 (5), 505-511.

McLaren, M.L. & Fleming, M.S. (1985). Special needs in public transportation: Some survey results. (Research Report # 1985/02). Ottawa: Canadian Transportation Commission.

Merriam-Webster, Incorporated. (1993). Merriam-Webster's collegiate dictionary, tenth edition. Markham, Ontario: Thomas Allen & Son Limited.

Moeser, S.D. (1988). Cognitive mapping in a complex building. Environment and Behavior, 20 (1), 21-49.

Moore, G.T. & Golledge, R.G. (1976). Environmental knowing: Concepts and theories. In G.T. Moore & R.G. Golledge (Eds), Environmental knowing: theories, research, and methods, (pp.3-24). Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross, Inc.

Morse, J.M. (Ed.). (1992). Qualitative health research. Newbury Park, CA: Sage Publications.

Multiple Sclerosis Society of Canada, Ontario Division. (1993). Social action handbook. Toronto, Ontario: author.

Novak, M. (1988). Aging and society: A Canadian perspective. Scarborough, Ontario: Nelson Canada.

Paaswell, R.E., Weinstein, E. & Nalepa, M. (1982). Housing location and transport for the elderly. In N. Ashford, W.G. Bell & T.A. Rich (Eds.). Mobility and transport for elderly and handicapped persons, (pp. 57-64). New York: Gordon and Breach Science Publishers.

Patterson, A.H. (1985). Fear of crime and other barriers to the use of public transportation by the elderly. Journal of Architectural Planning Research, 2, 277-288.

Persson, D. (1993). The elderly driver: Deciding when to stop. The Gerontologist, 233 (1), 88-91.

Regnier, V. (1983). Urban neighborhood cognition: Relationships between functional and symbolic community elements. In G.D. Rowles & R.J. Ohta (Eds), Aging and milieu: Environmental perspectives on growing old, (pp. 63-95). New York: Academic Press.

Rovine, M.J. & Weisman, G.D. (1989). Sketch-map variables as predictors of way-finding performance. Journal of Environmental Psychology, 9, 217-232.

Rowles, G.D. (1983). Geographical dimensions of social support in rural Appalachia. In G.D. Rowles & R.J. Ohta (Eds.). Aging and milieu: Environmental perspectives on growing old, (pp.111-130). New York: Academic Press.

- Sherlock Publishing Ltd. (1993). Sherlock's city map: Winnipeg. Winnipeg, Manitoba: author.
- Smith, G.C. (1991). Grocery shopping patterns of the ambulatory urban elderly. Environment and Behavior, 23 (1), 86-114.
- Smith, G.C. (1984). Spatial aspects of of the shopping patterns of the urban elderly. Canadian Journal on Aging, 3, 133-146.
- Smith, B.W. & Hiltner, J. (1988). Who are the elderly users of public transportation? A case study in Toledo, Ohio. The Journal of Applied Gerontology, 7 (4), 504-513.
- Stake, R.E. (1994). Case studies. In N.D. Denzin & Y.S. Lincoln (Eds.). Handbook of qualitative research. Newbury Park, CA: Sage Publications.
- Statistics Canada. (1993). Profile of urban and rural areas - Part A. Canada, provinces & territories. Cat.# 93-339. Ottawa, Ontario: Minister of Supply and Services Canada.
- Statistics Canada. (1991). Winnipeg census tracts - Part A. Cat.# 95-360. Ottawa, Ontario: Minister of Supply and Services Canada.
- Statistics Canada. (1989). The health and activity limitation survey, sub-provincial data for Manitoba. Cat.# 82-609. Ottawa, Ontario: Minister of Supply and Services Canada.
- Stewart, D.W. & Shamdasani, P.N. (1990). Focus groups: Theory and practice. Newbury Park, CA: Sage Publications.
- Strauss, A. & Corbin, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park: Sage Publications.
- Townsend, E. (1993). Muriel Driver Memorial Lecture - Occupational therapy's social vision. Canadian Journal of Occupational Therapy, 60 (4), 174-184.
- Trombly, C. (1995). Occupational therapy for physical dysfunction, fourth edition. Baltimore: Williams and Wilkins.
- Walsh, D.A., Krauss, I.K. & Regnier, V.A. (1981). Spatial ability, environmental knowledge, and environmental use: The elderly. In L.S. Liben, A.H. Patterson & N. Newcombe (Eds.). Spatial representation and behavior across the life span: Theory and application. New York: Academic Press.

Weisman, J. (1982). Developing man-environment models. In M.P. Lawton, P.G. Windley, & T.O. Byerts (Eds), Aging and the environment: Theoretical approaches, (pp. 69-79). New York: Springer Publishing Company.

Whyte, W.F. (1984). Learning from the field: A guide from experience. Newbury Park, CA: Sage Publications.

Wood, D. & Beck, R. (1989). Janine Eber maps London: Individual dimensions of cognitive imagery. Journal of Environmental Psychology, 9, 1-26.

Wordperfect Corporation. (1994). WordPerfect version 6.0a for windows. Orem, Utah: author.

Yeates, M. (1979). The need for environmental perspectives on issues facing older people. In S.M. Golant (Ed), Location and environment of elderly population, (pp.71-80). Washington, DC: V.H. Winston & Sons.

Yeatts, D.W., Crow, T. & Folts, E. (1992). Service use among low-income minority elderly: Strategies for overcoming barriers. The Gerontologist, 32 (1), 24-32.

**APPENDIX 1: STUDIES THAT IDENTIFY FACTORS
THAT INFLUENCE COMMUNITY MOBILITY**

	Sample	Primary Method	Objectives or Questions	Significant Mobility Influencers: Personal Factors	Significant Mobility Influencers: Structural Factors
Cutler (1972)	Random sample. N=170. Small town.	Structured interview	To explore the relationship between transportation availability and life satisfaction.	Health, income	Housing location
Cutler & Coward (1992)	Stratified random sample selected from USA census data. N=239,329. Urban & rural mixed.	Secondary data analysis	To explore the relationships between age, gender and area of residence in relation to availability of personal transportation	Age, gender	Housing location
Doyle (1988)	n/a - narrative article. Focuses on urban issues.	Narrative article - refers to some secondary data	To describe and explain transport handicap	Age, gender, income, living situation, being able to drive	
Eisenhandler (1990)	Stratified random sample of 50 people (31 women), 60+. Small town.	Semi-structured interviews	To explore old age and identity	Age, health, being able to drive	Daylight, weather, traffic

Gant & Smith (1988)	Census of older people and people with disabilities in a pre-defined area. N=498. Small town & rural mixed.	Structured interviews	To analyze journey patterns among independent households and dependent households	Age, health, gender, income, being able to drive	Housing location, bus scheduling
Grant & Rice (1983)	Random sample from 8 rural municipalities. 1,675 returns (87% response rate). Small town & rural mixed.	Mail-out surveys	To assess the transportation needs of seniors living in rural Saskatchewan	Health, gender, income, living situation, being able to drive	Housing location
Golant (1984a)	Random sample of 400 persons aged 60+ living in a middle class community. Urban.	Structured interviews	To assess the individual and environmental constraints which influence the frequency of older people's nighttime activity	Health, gender, education, fear, being able to drive	Weather
Golant (1984b)	Random sample of 400 persons aged 60+ living in a middle class community. Urban.	Structured interviews	To assess the individual and environmental constraints that influence where older people carry out their daily activities	Health, income, living situation, being able to drive	

Iutovich & Iutovich (1988)	Multi-staged cluster sampling resulting in 2,048 randomly selected, non-institutionalized older adults aged 60+. Urban & rural mixed.	Structured interviews	To determine the factors that distinguish between individuals expressing need for transportation versus those who do not, and between those using public transportation and those that do not.	Age, health, gender, income, living situation, being able to drive	Housing location
McGhee (1983)	Random selection of individuals from randomly selected clusters. N=231 (71% women). Rural.	Structured interview	To compare the ability of selected personal characteristics to distinguish between people who are transportation independent versus dependent	Age, health, gender, income, education, living situation, being able to drive	
McLaren & Fleming (1985)	Included people 15+ from the 10 Canadian provinces. N=39,000. Urban & rural mixed.	Structured interview. Six questions added to the Statistics Canada Labour Force Survey.	To determine the size of the handicapped community by various forms of transportation, and to identify travel barriers	Age, health	Bus seating and design
Paaswell et al. (1982)	1970 surveys distributed in one apartment block. 147 returns. Urban.	Self-completed survey questionnaire	To establish the severity of transportation problems among elderly people who had recently moved to a suburban area	Income, fear	Housing location, weather, bus scheduling and design
Patterson (1985)	Survey distributed to eleven seniors centres. 225 surveys returned. Urban.	Self-completed survey questionnaire	To identify psychological and physical barriers to the use of public transportation by the elderly	Age, gender, fear	Bus scheduling, seating and design

Smith & Hiltner (1988)	Original study included 150 randomly selected people aged 60+. Urban.	Secondary data analysis.	To describe the demographic attributes of users and non-users of public and agency transportation in Toledo, Ohio.	Age, gender, living situation, being able to drive	
------------------------	---	--------------------------	--	--	--

APPENDIX 2: DEVELOPMENT OF THE THESIS TOPIC

Employing the term *community mobility* is particularly useful if one comes from a disciplinary background which utilizes a client-centred model of service delivery. As a result of using such as model within my own training and practice as an occupational therapist, this thesis grew, developed and came to fruition over approximately six years. Understanding the history of this work is important for the reader as it provides a context in which the practice implications in the final chapter can be fully appreciated.

Occupational therapists³⁰, like me, work to enable their clients to perform everyday activities of daily living as independently as possible given physical, mental, social and environmental challenges (CAOT, 1991). In fulfilling this function, occupational therapists offer a range of services including, but not exclusive to, physical and cognitive rehabilitation, counselling, provision of assistive devices, and environmental modification (Trombly, 1995). Therapy is provided through individual

30

"Occupational therapy is the art and science which utilizes the analysis and application of activities specifically related to occupational performance in the areas of self-care, productivity and leisure. Through assessment, interpretation, and intervention, occupational therapists address problems impeding functional or adaptive behaviour in persons whose occupational performance is impaired by illness or injury, emotional disorder, developmental disorder, social disadvantage, or the aging process. The purpose is to prevent disability; and to promote, maintain or restore occupational performance, health and spiritual well-being. Furthermore, occupational therapy services can be directed through health, educational and social services systems." (CAOT, 1983, p.xvi)

and group sessions and most often within a multi-disciplinary team situation in institutional and community settings.

In Canada, occupational therapy practice is based on a client-centred model (CAOT, 1991). This model, and the training of occupational therapists in general, emphasizes that active engagement in activity, regardless of its form or role, can positively effect health and quality of life. For occupational therapists, task engagement is broadly conceptualized as occupational performance, and it is seen to have three areas - self-care, productivity and leisure. Success in these three areas is dependent upon the individual's physical, mental, spiritual and socio-cultural performance, as well as the way in which interaction with the social, cultural and physical aspects of the environment occurs. In this way, the client is viewed as an active participant in the therapeutic relationship and as an "integrated being in which no area of function can be isolated as a separate entity." (CAOT, 1983, p.8).

It is upon this philosophical and practice base that this research project developed and was completed. Having practiced as an occupational therapist since 1987, primarily in the field of gerontology, I have been continuously challenged to consider, understand and work to intervene on the factors having an impact on the occupational performance, and ultimately, the health and functioning of the people I have served. Over the years, the scope of the factors that I have considered has grown tremendously. Initially, working on individual factors such as strength, standing tolerance, and flexibility appeared to be adequate. But over time, it became apparent that broader issues were in play and that structural factors, such as the physical and

service system environments, were just as important to the occupational performance of the clients I served. This process of increasing awareness was a key factor leading to this research project. The story of the process is described in the following paragraphs.

From 1988 to 1991 I was employed as an occupational therapist on a geriatric psychiatry unit at a local Winnipeg hospital. In the scope of this position I provided occupational therapy services primarily to older women with depression and anxiety. Although most of these women were discharged to their homes, they frequently returned to the hospital after short stays in the community. Some women were eventually able to maintain themselves at home with supportive services while others were admitted to personal care homes.

A common theme which I observed in these repeat clients, regardless of their final residence after discharge, was problems moving around in the community - either on foot, by car or by public transportation. The reasons for this mobility problem varied and included factors such as generalized anxiety, lack of family support, poor physical health and lack of knowledge (e.g., had never used the transit system). Although the treatment team with which I worked would try to address issues around community mobility, they tended to take a back seat to organizing home care services, setting up medications, or referral to a day hospital. The treatment team rarely, if ever, discussed the role that community mobility might be playing in the isolation, depression and repeat admissions of some of our clients.

In 1991 I began working for the Canadian Association of Occupational Therapists on a two year seniors' health promotion project³¹. In this position, I worked with groups of older, community-dwelling people throughout the province helping them identify potential barriers to their continued health and independence. Once the barriers were identified, we continued to work together forming plans to address these barriers. These plans included such activities as health education sessions, leadership training and developing resource linkages.

In the early stages of the project, both the Newfoundland Pilot Coordinator and I found that transportation was seen by many older people, particularly women, as a potential barrier to their continued health and independence. Although the Newfoundland Coordinator worked on the transportation issue throughout the two year project, I felt ill-equipped to deal with it (e.g., where would you start in the scope of a two year project?), and therefore transportation was never explored or dealt with directly in the Manitoba Pilot.

Through these two work experiences, one in an institutional setting and the other in the community, I became intrigued by the importance and impact that community mobility appeared to have on older people, particularly women. As a

31

The CAOT Seniors' Health Promotion Project operated from October 1990 to March 1993. It was sponsored by the CAOT and funded through the Seniors' Independence Program of Health & Welfare Canada (now Health Canada). The Project had two pilot sites, one in Winnipeg, Manitoba and a second in St. John's, Newfoundland. The Project's basic objective was to develop, demonstrate and evaluate the role of occupational therapy in health promotion with the well-elderly. For more details about the Project, refer to Letts, Fraser, Finlayson & Walls, 1993.

result, I chose to explore this area in greater depth and focus my thesis research on the community mobility of older, community-dwelling women.

APPENDIX 3: THE METHOD OF COGNITIVE MAPPING

Cognitive mapping is a research method that is familiar to environmental psychologists, human geographers and architects, but is relatively unknown in other fields and disciplines. As a research method, cognitive mapping has been described as a principle way of eliciting information on an individual's environmental perceptions (Blades, 1990). It has been used by both qualitative and quantitative researchers, and is used to answer a variety of research questions in studies of person-environment relations. (Table 3.A).

The use of cognitive mapping is based on theories of environmental cognition (Moore & Golledge, 1976) and therefore in using mapping to access a person's perception of the environment, space is considered to be relative, "...that is, as an expression of a set of relationships among objects. Under this view, space changes with alterations in the position of objects and of the observer" (Liben, 1981, p.4).

Table 3.A: Studies that Have Used Cognitive Mapping:

Reference	Sample	What was mapped?	Question Addressed through Mapping	Map Analysis Technique
Moeser (1988)	10 first-year and 10 third-year female nursing students from Memorial University in Newfoundland	The hospital in which the students worked	How do simple mapping representations become more detailed with experience?	Comparing maps to floor plans of building - one point for each label placed correctly
Holahan & Dobrowolny (1978)	104 students from a psychology course at University of Texas	University campus on which the students attended classes	Do features & distortions included on a map reflect personal &/or collective behavior?	Size exaggeration score; centrifugal distortion score; identification of spatial zones
Rovine & Weisman (1989)	45 university students ranging in age from 17-41; 21 males and 24 females	The route taken on a guided tour through the downtown area of an unfamiliar town	What measures are the best predictors of way-finding performance? (e.g., accuracy of map; visualization; orientation, etc.)	Frequencies of landmarks, path segments, and path intersections; complexity of maps; categorized as a spatial or sequential map; accuracy of map.
Gärling (1989)	84 undergraduates from the University of Umeå, Sweden	Students had to map the shortest route based on information provided (four combinations which varied pictures, distances, directions) * Lab. experiment	What role does spatial representation play in minimizing travel distance? (e.g., the problem of the travelling salesman?)	Accuracy of drawings measured by correlating actual distances and that presented on the drawing

Gale, Golledge, Pellegrino & Doherty (1990)	16 children - 8 males, 8 females - with one of each gender for each of the following ages - 9, 10, 11 and 12 years	Route through an unfamiliar neighbourhood after five learning trials. Half the group had actual field learning, other half learned route by videotape	How does the medium of experience affect the acquisition of knowledge about the environment?	Measures of orientation (correct vs not), segmentation (number on map) and features (type and number)
Wood & Beck (1989)	One 17 year old female student	Student drew a daily map of the city which she was visiting while on a trip to Europe	What are the developing images and aspects of the places the student visited? How did her spatial understanding of the cities change over time?	Maps were drawn using the Environmental A protocol; analysis involved grid transformations to measure accuracy, types of distortion/error, presence of linkages between areas; changes from map to map
Blaut, McCleary & Blaut (1970)	107 children, ages 5, 6 & 7, from first grade classes in Massachusetts; 20 children of comparable ages from Puerto Rico. Note: only 19 children did the mapping part of the experiment (which group of children is not specified)	Child given an aerial photograph, asked to trace roads and houses on to an acetate, photograph removed - child asked to map a route (non-linear) between two houses on the tracing * Laboratory experiment	Do North American and Puerto Rican children of school-entering age interpret and utilize an environmental map without training or prior exposure to a map?	Routing was considered correct if the mapped route did not 'deviate seriously' from the traced roads. No scoring schema presented.

Appleyard (1970)	75 respondents from 4 regions of the same city in Venezuela; based on quota sampling which stratified for age, sex and education; exact numbers for each cell not provided	Respondents asked to draw a map of the whole city, as well as a map of their local area in the city	How do people relate different part of the city to each other? How do they 'place' themselves within the urban environment? How do they mentally structure the city?	Categorized maps into two primary types based on the primary elements used, and then into subtypes - sequential (fragment, chain, branch & loop, network) or spatial (scatter & cluster, mosaic, link, pattern); researchers then compared the collections of maps between subject groups
Ladd (1970)	60 adolescent black boys from low income backgrounds; age range from 12-17 years; selected on the basis of socio-economic indices	Boys were asked to draw a map of their neighbourhood	How to urban adolescent black boys subjectively define their neighbourhoods through graphic representations? What are the socially & psychologically significant aspects of the contents of their maps?	Categorized maps into four types - pictorial, schematic, resembling a map, resembling a map with other identifiable landmarks; also assessed the size of neighbourhood as represented, number of landmarks, number of streets, map organization, position of subject's residence, accuracy

Regnier (1983)	100 residents of Westlake community in Los Angeles; all respondents over 60 (mean age of 71.3); 47% were male, 53% were female; average # of years in community was 17	Respondents were asked to draw a map of their neighbourhood	Are the maps constructed by planners similar or different from maps elicited from older community residents? What relationships exist between consensus image maps of older adults and the services they use? Do the maps reflect symbolic, functional or civic influences?	A single consensus map was created from the maps obtained from respondents - done by counting places and paths placed on respondents maps, and ranking degree of consensus, for places to be included on consensus map they had to be marked on at least five respondents' maps
-------------------	--	---	---	---

By asking people to draw a map of their area of the city, marking on it the places of importance to them, authors believe that they will be able to get a sense of how their participants define their respective areas and the relative size of it (Holahan & Dobrowolny, 1978; Ladd, 1970). Ladd (1970) observed that the size of the map drawn by the boys in her study appeared to be related to the range of their activity sites, and the degree of independence they exhibited overall. Holahan and Dobrowolny (1978), by using both cognitive and behavioral mapping³² exercises with University students, found that students tended to only map those areas that they most

32

According to Holahan & Dobrowolny (1978), behavioral mapping involves "behavioral observations of collective activity patterns of all person in selected parts of the setting and self-reports from individuals of personal behaviour patterns in the area" (p.319).

frequently used on the campus. Areas to which they did not travel were absent, vaguely marked, or unconnected to other locations on their maps.

In general, sketch maps produced by participants in the studies identified in Table 3.A fall into two broad categories - places with which they were familiar and places with which they were not. The category of unfamiliar places includes laboratory experiments in which participants mapped a route or space which was "created" by the researcher for the purpose of the study (Blaut et al., 1970; Gärling, 1989). The familiar places which participants mapped ranged from buildings (Moeser, 1988) to university campuses (Holahan & Dobrowolny, 1978) to the neighbourhood in which he/she lived (Appleyard, 1970; Ladd, 1970; Regnier, 1983).

In reviewing the research questions that were asked in the studies using cognitive mapping, it is important to keep in mind that most of them also used other methods. For example, Appleyard (1970), Ladd (1970), Moeser (1988) and Regnier (1983) used maps in conjunction with an interview component in order to access and probe the social and psychological aspects of participants' perceptions of the environment. Gale et al. (1990) utilized videotape and on-foot touring to familiarize the children in their study with an unfamiliar neighbourhood. Touring participants through the unfamiliar neighbourhood was also used by Rovine and Weisman (1989). Wood and Beck (1989) supplemented their data by having their subject complete daily diaries of her impressions of the environments to which she was exposed.

The analysis techniques used by the various researchers for the sketch maps range in complexity and "quantitative-ness". Although most studies used some form

of accuracy measure in analyzing the sketch maps, the level of sophistication of these measures varied. Accuracy measures represented in these studies provided nominal data (Moeser, 1988) through to interval data (Gärling, 1989; Wood & Beck, 1989). Many studies used descriptions of the form of the sketch maps in the analysis write-ups. These descriptions used terms such as sequential, spatial-mosaic, spatial-linked, pictorial, branch and loop, etc. (Ladd, 1970; Moeser, 1988; Rovine & Weisman, 1989; Wood & Beck, 1989). Unfortunately, none of these articles clearly defined these terms as they relate to the construction of a sketch map. In addition to using these descriptive terms, the authors of quantitative studies also tend to provide complexity ratings and ratio estimations of distances. As a result of these various types of measures from the single technique, data on the reliability of sketch maps is equally broad.

Blades' (1990) study asked 109 psychology students ranging in age from 18 to 42 to draw a map of a common route in their community. The participants drew the same route on two occasions which were one week apart, and were also asked to rate their familiarity with the route being represented. On both occasions, participants were allowed to use any drawing instrument they wished, and were allowed as much time to complete the task as they required. On the completion of the first trial, participants were not told that they would be asked to repeat the drawing in a week's time.

Scoring of the maps included three measures: number of road names, number of landmarks named, and the number of road segments. The results of the study found

that all participants were able to produce some sort of drawing, and the details on the map depended on the individual's familiarity with the route. Although some of the maps had landmarks incorrectly placed, street names "were nearly always applied correctly" (Blades, 1990, p.331). All maps followed cartographic formats. There were no sex or age differences found in the results.

The correlations between the three map measures taken a week apart ranged from 0.74 to 0.86 and all were significant at the $p < .001$ level. This finding supports strong stability or test-retest reliability of the sketch maps over the one week time frame. This finding remained the same when the participants' familiarity with the route was taken into account, although some of the significance levels dropped to $p < .05$.

Blades (1990) concludes that the high correlations between maps in both conditions, plus the ability of the judges to match the maps drawn by the same individual, provide evidence for the stability reliability of sketch maps over a short period of time. He further identified that the familiarity which a participant has of the route is a strong influence on the amount of detail provided on a sketch map.

Three other studies which had participants produce a sketch map provide statistics for inter-rater reliability. Although the scoring techniques and complexity varied across studies, the range of inter-rater correlation was between .55 to .71 in Rovine's and Weisman's (1989) study, to .91 in Moeser's (1988) study. Although Ladd (1970) does not provide correlation coefficients for the inter-rater reliability in

her study, she states: "There was agreement among at least four of the judges [of five] on 43 (or 62%) of the sixty maps" (p.83).

In summary, cognitive mapping is a method which has been used for a variety of research purposes ranging from understanding an individual's perception of their environment (Appleyard, 1970; Regnier, 1983; Wood & Beck, 1989) to how children learn routes (Blaut et al., 1970; Gale et al., 1990) to how groups of people use space (Holahan & Dobrowolny, 1978; Moeser, 1988). It was chosen as a method for this project because it has been described as a principle way of eliciting information on an individual's environmental perceptions (Blades, 1990). This technique was considered important to the study since some authors feel that the way in which an older person perceives their environment may influence how, when and where they are willing to travel (Berghorn et al., 1978; Blades, 1990; Golant, 1984a).

APPENDIX 4: STATEMENT OF INTRODUCTION USED FOR THE INTERVIEW

Read to Participant at start of interview:

The research that I am doing, and which our discussion today is about, is for my Master's degree in Community Health. My research project is entitled "Exploring the Process of Community Mobility in the Lives of Older, Community-Dwelling Women in Winnipeg." By community mobility I mean how a person moves around in the community in which they live. I am interested in learning more about how older women get around in the communities they live, and what this mobility means to them. I am also interested in finding out what things make it easy or difficult for older women to move around in their communities. One of the factors that I am particularly interested in is whether or not how we think about our neighbourhood, or picture it in our mind, influences how and when we move around.

Go through the study information sheet and explain it to the participant. Then review these highlights:

- a) You have the right to refuse to answer any questions that you think are too personal, or that you are uncomfortable answering.
- b) It is important to remember that there are no right or wrong answers for any of the questions that I will be asking you. I am only interested in your ideas, opinions and feedback.
- c) Everything that you tell me will be kept confidential. Your name will not be used on any of my papers, rather they will be coded.

Explain the consent form:

Although you have verbally agreed to talk to me, I need a record that you agreed. This record is a consent form. It says that you agreed to talk to me, that I explained the study to you, and that I promise to keep the things that you tell me confidential. I would like you to read through this form and ask me any questions you have before we start. We will each sign two copies. I will keep one and you will keep one.

- a) Do you have any questions?
- b) Are you still comfortable with being a part of this study?
- c) Sign consent form.

Administer Interview and Mapping exercise

APPENDIX 5: STUDY INFORMATION SHEET³³

Investigators: Marcia Finlayson will be doing the research. She is a graduate student in the Department of Community Health Sciences, Faculty of Medicine, University of Manitoba, 750 Bannatyne Avenue, Winnipeg, Manitoba, R3E 0W3. Ph: (204) XXX-XXXX. Dr. Joseph M. Kaufert, Department of Community Health Sciences, is supervising the research. Ph: (204) XXX-XXXX.

Purpose of Study: Through this study, I hope to learn about how older women describe and talk about what it means to them to be able to move around the city, and what happens to them when they cannot. I believe that this learning can help health care professionals and people who work with seniors to understand how the features of a community may be influencing the independence of older people.

How the Study will Work: During this study I will be talking to a number of older women who live in the City of Winnipeg. The women being asked to take part in this study are selected because they are over 65 years of age, because they do not live in a hospital or personal care home, and because of the services and resources that are present in their neighbourhoods.

Women who volunteer to join will be interviewed by me. The interview will be held at a place and time convenient to both of us. If you decide to volunteer, it is important to remember that there are no right or wrong answers during the interview. I am simply interested in your ideas, opinions and experiences. With your permission, I will tape record your interview. I want to tape record it for two reasons. First, the

33

For the participants this information sheet was printed using a 14 point font and 1.3 line spacing.

results will be more accurate if I have your actual words rather than just a summary of what you said. Second, I cannot write as fast as people talk and things will go more smoothly and take less of your time if it is recorded.

The Interview: Women who volunteer to be interviewed will meet with me at an agreed upon time and place. I expect that the interview will take around one to one-and-a-half hours. First, I will be asking questions about your background. For example, I will be asking you such things like if you drive, if you live with other people, how long you have lived in your neighbourhood, your level of education, and your sources of income. I will also be asking you how you usually get around in the city, and about the things that make this easy or hard for you. We will talk about how you feel when you cannot get to where you want to go, and what your ideas are about making it better for seniors to move around in the city.

When the interview is finished, I will give you some paper and a pencil. I will ask you to draw a map for your neighbourhood. Your map will help me to learn about how you think about the neighbourhood around you. It is not important if your map is accurate. I am only interested in what you think is important to put on your map.

Confidentiality: Records of the interviews will be coded only with a number and not any names. This way records can only be identified by me or my supervisor. No other person will be given any of the interview records. The consent forms will be the only record with your name on it. Any reports written about this project will neither mention your name or provide any description that could potentially identify you. I will treat the tape-recording of the interview in the same confidential way. A secretary may type up the interview, but she will not know who you are.

Participation: Being involved in this research is completely up to you. I hope that you will volunteer, but you are under no obligation to do so. You can decide not to join

the study or to drop out at any time, even while we are talking. If you decide not talk to me, this will not affect any services that you now receive in the community. I am not working for any community seniors' service and this project is not being done for one.

You will be asked to give your consent once you agree to participate and sign a paper that says that you have agreed. I will also sign this paper and promise to answer your questions and keep your information confidential. You will get a copy of this agreement.

Risk and Discomfort: In all research projects carried out by the University, the person doing the project must point out any risks or discomforts to you as a participant. I do not think that this study will cause any problems for you other than taking your time to answer questions. If any of the questions that are asked of you are too personal, you may refuse to answer them. Just let me know if you would like to skip any questions.

Benefits: All University projects must also point out if there are any benefits to you if you participate. During the interview, some women may learn about community services that they did not know about before. This will not happen for everyone. You will not receive payment for taking part in this study. When completed, this research should help health professionals and community workers to understand the concerns that older women have about moving around in their community. This information may be helpful in program and service development.

For More Information: If after the interview you have any further questions about the study, please feel free to contact me, Marcia Finlayson. My telephone number is XXX-XXXX. There is an answering machine at this number, so if I am not there please leave a message and I will call back as soon as I am able. I would also be pleased to provide you will a summary of the study findings if you are interested.

APPENDIX 6: CONSENT FORM³⁴

Participant Code: _____

I, _____, voluntarily agree to participate in a study exploring the nature and importance of community mobility in the lives of older women, the factors which influence this mobility, and how perceptions of the neighbourhood impact on the overall mobility of older women within their community.

The study has been explained to me, and I understand that there are no right or wrong answers because Marcia is just interested in my opinions and experiences. I understand that in giving my consent to participate in this study, I will be interviewed by Marcia.

I understand that after I am interviewed, I can volunteer to be involved in a follow-up interview. I understand that this follow-up may take the form of a discussion group with other women who Marcia has interviewed. I understand that in both situations, the discussion will be recorded on tape, and that all the information I provide will be kept completely confidential. Should I volunteer to be involved in a group discussion during the follow-up, I understand that I must keep the information provided by other women confidential and that they have been asked to do the same with the information I provide.

I have been told that the information I share will be identified by code rather than by name, and that the master list of names and codes will be destroyed when all the

34

For the participants the consent form was printed using a 14 point font and 1.3 line spacing.

research is completed. Also, I have been assured that the names of individuals will not be used in any reports of the study's findings. I would like a brief summary report of the study when it is completed:

YES

NO

I would be willing to be contacted for other similar research by Marcia in the future.

YES

NO

Signature of Informant:

Witness:

Date:

I have fully explained to _____ the nature and the purpose of this research as described on the information sheet which has been given to the participant. I have asked the participant if she has any questions about the study, and have answered these questions to the best of my ability. I will ensure during the course of this research that all records are kept confidential.

Signature of Investigator:

Date:

APPENDIX 7: SCREENING INTERVIEW

1) Are you 65 or older?

1 - yes

2 - no

If no, stop the interview and explain that this study is only interested in women who are 65 and over. Thank her for her interest.

● If yes, what is your age? _____

2) Did you have any difficulty reading the letter or the study information sheet sent to you?

1 - yes

2 - no

● If yes, why?

a - visual impairment

b - language barrier

c - literacy level

● If yes, take time to answer any questions or explain the study

3) Do you currently drive a car?

1 - yes

2 - no

● When was the last time that you drove?

● Do you drive your car all year around?

1 - yes

2 - no

4) How do you normally get to the grocery store?

I - By car - drive self

I - Bus

I - Taxi

I - Walk

I - Bicycle

L - Handi-transit or private handi-van service (including grocery vans)

L - By car - family member or friend drives; volunteer driver service

Other (e.g. delivery)

● Is this normal way of getting the grocery store different in the winter?

1 - yes

2 - no

● How is it different?

I - By car - drive self

I - Bus

I - Taxi

I - Walk

L - Handi-transit or private handi-van service

L - By car - family member or friend drives; volunteer driver service

Other (e.g. delivery)

5) How do you normally get out to pay your bills?

I - By car - drive self

I - Bus

I - Taxi

I - Walk

I - Bicycle

L - Handi-transit or private handi-van service

L - By car - family member or friend drives; volunteer driver service

Other (e.g. mail or phone)

● Is this normal way of getting to pay your bills different in the winter?

1 - yes

2 - no

● How is it different?

I - By car - drive self

I - Bus

I - Taxi

I - Walk

L - Handi-transit or private handi-van service

L - By car - family member or friend drives; volunteer driver service

Other (e.g. mail or phone)

- L - Handi-transit or private handi-van service
- L - By car - family member or friend drives; volunteer driver service

Other

8) Do you have any difficulty walking out-of-doors?

1 - yes 2 - no 3 - depends

◆ Do you ever use any type of walking aid?

◆ Do you use it all year around?

◆ If depends, what does it depend on?

Total I codes = _____

Total L codes = _____

10) Which of these statements would you agree with when you think about your ability to get around in the city?

I am independent in my ability to get around - I can get everywhere I need to go on my own

I am limited in my ability to get around - I need some help to get to some of the places that I need to go.

Note:

Independent Mobility is defined as 3 or 4 "I" codes on the first part of questions 4-7 on the screening interview, plus at least one "I" code on the second part of these same questions.

Limited Mobility is defined as 2 or more "L" codes on the first part of questions 4-7 on the screening interview, or 2 or more "L" codes on the second part of these same questions.

APPENDIX 8: INTERVIEW GUIDE

⇒ To begin, I would like to ask you some questions about your background. I will be using this information to help me to describe all of the women in my study and to look at how each of you are the same or different.

BACKGROUND INFORMATION:

1) What is your age?

2) In what country were you born?

● If you were not born in Canada,
what year did you come here?

3) How many years of schooling do you have?

● What is the highest level you completed?

1 - No formal schooling

2 - Some primary school

3 - Finished primary school

4 - Some secondary/high school

5 - Completed secondary/high school

6 - Some community college or technical college, CEGEP, or nursing
program

7 - Completed community college or technical college, CEGEP, or
nursing program

8 - Some university

9 - Bachelor's degree

10 - Master's degree

11 - PhD

12 - Other

4) Did you ever work outside of the home?

YES

NO

● If yes, for how many years?

● What type of job did you have?

5) Are you working for a salary now?

YES NO

● If yes, how much time (e.g., part-time, full-time) and where?

.....

6) What is your marital status? (circle one)

Married

Widowed

Never Married

Separated or Divorced

7) Are you currently sharing your accommodate with another person (including a spouse)?

YES

NO

● Does this person drive AND have access to a car?

YES

NO

8) What type of dwelling do you live in? (circle one)

House

Apartment (age-integrated)

Apartment (age-segregated)

Other:

9) How would you rate your health compared to other people your age? (circle one)

Excellent

Good

Fair

Poor

Bad

10) Can you tell me how well you think your income and assets (including that of your spouse if applicable) currently satisfy your needs? (circle one)

Very well

Adequately

With some difficulty

Not very well

Totally inadequate

● What are your current sources of income? (circle those that apply)

Old Age Security

Guaranteed Income Supplement

Canada Pension

Personal Savings

Private Work Pension

Widows Pension

Personal Retirement Savings (RRSPs, GICs, etc)

Other (eg. income from rental properties, salary):

● At the end of the month, do you usually have money left over to purchase or do things that you want?

YES

NO

● If yes, what kinds of things might this include? (circle)

household items

house repairs

food

clothing

transportation

holiday

medical or health needs (specify - eg., prescriptions, dental)

recreational and/or social activities (specify)

other (eg., rent)

⇒ Now I would like to move on to talk about how you move around in the city. I would like to start by getting an idea of just how much you get out and where it is that you usually go.

NATURE OF MOBILITY:

11) How much to you do you get out of your home in a typical day? a typical week?

● What kinds of activities do you go out for?

- self care - e.g., grocery shopping, medical appointments, paying bills, hairdresser, etc.

- productivity - e.g., volunteer work, paid work, babysitting grandchildren, caregiving for other relatives, etc

- leisure/social contacts - e.g., seniors' group, church, visiting friends or family, walking, window shopping, etc

● How do you normally get to some of these places?

probe: by car - drive self; bus, taxi, walk, bicycle, handi-transit or private handi-van service, by car - family member or friend drives or volunteer driver service

● Are you generally happy with the amount that you are able to get out? Why or why not?

probe - if you are not happy with the amount that you get out, how much more would you like to get out? where would you want to get out to?

12) How have your activities changed as you have grown older?

● different activities? different locations? different amount of participation? going out more or less?

MOBILITY INFLUENCERS:

13) Do you feel that there is any connection between the change in your activities and your ability to get around? Please elaborate.

• How do you account for this change/lack of change?

- probes -
- a) personal factors: your health and/or physical abilities, change in your living situation (e.g., death of spouse who drove)
 - b) environmental factors: changes in the neighbourhood (e.g., busier streets, less safe)
 - c) socio-political/structural factors: changes in the city (e.g., bus routes and scheduling, handi-transit priorities).

14) In your current travels through the city, what are some of the things that make it easy or difficult for you to get around? Please explain.

- probes -
- a) personal factors (see above)
 - b) environmental factors (see above)
 - c) structural/Social factors (see above)

15) Do you think that any or all of these things that you have mentioned (repeat some of them) are related to the fact that you are a senior and/or a woman?

16) Do you think that these things are different for the senior men that you know? Why?

17) Are you generally happy with the way in which you travel around the city? Why or why not? What would be a better alternative? Please explain.

18) Do you think that city officials consider the needs of seniors when making transportation plans and policies? Why do you think that this is the case?

19) If you were invited to be on a seniors transportation committee for the City of Winnipeg, what kinds of things would you recommend to make the city more accessible? What would you see as priorities? Why?

- If this invitation was real, would you accept? Why or why not?

IMPACT AND MEANING OF MOBILITY:

⇒ At this point, we have talked about where you travel to, and what things make that travel easy or difficult. I'd like to shift the questions a bit now and talk about what impact mobility has on your life. In other words, what mobility means to you and your ability to carry on your life in a manner which you desire.

20) If you want to get somewhere, and your usual mode of travel is unavailable (use examples if necessary - car not working, friends out of town, bus routes changed due to construction), what do you do?

probe - not go, find an alternative mode of travel, find an alternative way of doing task (e.g., have groceries delivered),

21) Have you ever had the experience of being unable to get where you wanted or needed to go?

- Tell me about it.
- How do you feel when you cannot get out to do the things that you want or need to do?

probe - dependent on others, lonely, useless, helpless, angry, etc

- What happens to you when you have these feelings?

probe: don't take good care of myself, eat poorly, miss or cancel appointments, stay home alone, do something else to distract myself

- Of all of the places that you go to in the city, which one makes you feel the worst when you can't get there? Why?

22) Do you feel that you are the one who makes the decisions about where and when you travel around the city?

● If you are not making these decisions, who (or what) is?

probes: family, friends, type of transportation, safety issues, health , weather

● If you are not making these decisions, do you feel that you can influence them in your favour?

23) On a scale of 1 to 10, 10 being the most important to maintain your independence, where would you rank the importance of being mobile within the city? Why? What is it that makes getting out that important/unimportant?

24) What do you think about this statement - Accessible transportation is a right not a privilege? Please elaborate.

SUMMARY AND CLOSING QUESTIONS:

⇒ I just have a few last questions to ask you to wrap up this interview.

25) How long have you lived in your neighbourhood? (circle one)

Less than 2 years - specify number of months

3-5 years

6-10 years

10-20 years

More than 20 years

● If you have lived in your neighbourhood for less than 2 years, where did you live before you moved here? What factors were involved in your decision to move here?

OR

● If you have lived in your neighbourhood for more than 10 years, what makes you stay here?

26) Do you feel the area in which you live has all of the basic services (e.g., grocery store, bank, etc) that you require on a regular basis?

NOTE: If under 2 years in this location, ensure participant is answering question on current location

● If YES, in your mind what are those basic services?

● If NO, what do you feel is missing?

27) We have talked about a lot of different issues in terms of your experiences in moving around in this city. Would you be willing to talk about some of these things with a group of other women who I have interviewed?

28) Do you have any other thoughts that you would like to share with me about what it is like for you to move around in the city?

APPENDIX 9: COGNITIVE MAPPING INSTRUCTIONS

To be read to the interviewee upon the completion of the interview:

"Here is a piece of paper and a choice of things with which to write. After you choose what you would like to write with, I would like you to draw a map of your area of the city. That is, the area where you live, places you are familiar with and use regularly.

Please mark your home on your map, and those places in your area of the city that you regularly use or visit, and are important to you.

You can use as many pieces of paper as you wish, and you can erase or start over if you feel that it is necessary.

Do not worry if your map is not exactly right. You can tell me what you are drawing as you work if you want, or I can ask questions if I do not understand your map.

Take your time, there is no time limit.. Remember, draw a map of your area of the city, that is, the area where you live, places you are familiar with and use regularly. Mark your home on your map, and those places that you regularly use or visit, and are important to you"

In case of visual impairment, use the same instructions and consider using one of the two following options:

- A)
- 1) Provide a larger piece of paper for the task (11 x 17 rather than 8.5 x 11);
 - 2) Mount this paper on a larger sheet of black construction paper or bristol board in order to provide a contrasting edge and a definable end to the map;
 - 3) Include a wide black marker among the choice of writing utensils offered to the woman and ensure that this particular choice is specifically pointed out to her; and
 - 4) Provide assistance in drawing the map by marking on specific locations described by the woman if requested.

OR

- B)
- 1) Omit the mapping task from the interview if it is apparent that the woman will be unable to complete the map or she states she cannot complete the map due to visual impairment.

APPENDIX 10: COGNITIVE MAPPING ANALYSIS SUMMARY

Cognitive mapping was chosen as the method to use in this study to access the women's perceptions of their neighbourhoods. Aspects of these neighbourhoods that were of specific interest were the places that they went to regularly or that were important to them. The women were given standard instructions and no time limit. Although some previous studies (see Appendix 3) have used elaborate analysis strategies for cognitive maps, I chose to use a modified content analysis approach. This choice was made because my interests in the maps were what places were marked, and the scope of mobility represented on them. Furthermore, the maps were used to supplement the interview data, rather than being the primary data source.

Process of Map Analysis:

In order to analyze the maps which were drawn by the women, I set up a spread sheet in Quattro Pro version 5.0 for Windows (Borland International, 1993) with each row representing a participant, and each column representing a feature of the maps. The features which I identified reflected the definitions of resource-rich and resource-poor from my study, and the neighbourhood services identified through references in my literature review (e.g., CARNET, 1993; Gant & Smith, 1988).

The features represented in the columns included - grocery, bank, bus stop, a place to pay bills, pharmacy, medical centre, post office, library, seniors' centre, park, friends, family, number of streets, out-of-town locations and other. The first 12 of these features are directly from my proposal or the references. The last three features were ones that I added in order to reflect the size of the maps and travel outside of the

perimeter. The "other" category was initially designed to catch everything else on the maps.

Once the spreadsheet was set up, I went through each of the maps and recorded their content on the spread sheet. I quickly found that the features "bank" and "place to pay bills" were the same. In addition, I found that the "other" category was becoming quite full. Nevertheless, I completed this first round of content recording in order to analyze it more carefully and determine patterns in the data.

Upon reviewing this first spreadsheet, I found a number of repeating features in the "other" category, for example - malls, clothing and department stores, and church. As a result, I decided to form a second spreadsheet and separate the "other" category into more detail. The features that I identified for this second spread sheet included: malls, clothing and department stores, church, hospital, hairdresser, other health, gas station, landmarks, schools, restaurants, recreation/volunteer, and other services. Again, once the spreadsheet was set-up, I proceeded to go through and record the information from each of the maps.

At this point, I had two spread sheets - one with the basic features identified prior to me starting my study, and a second with additional features that the women marked on their maps. In some of these columns there were only one or two women who had marked the particular feature on their map (e.g., Helen (RP/I, D, G) was the only participant to have marked "chiropracist" on her map which I categorized as "other health"). Therefore, I decided to reorganize my features and collapse together those that reflected the similarities. The result was that:

a) some features were maintained because a large number of women marked them on their maps. These included:

grocery, bank, malls, clothing and department stores

b) some features were collapsed together. These included:

medical centre, pharmacy, hospital and other health became "health services"

bus stops and gas stations became "transportation"

river, schools, specific buildings became "neighbourhood landmarks"

pool, out-of-town, library, parks, restaurants, seniors' centers became "recreation/volunteer"

friends and family were collapsed into one category called "friends/family"

c) some features were maintained because they did not fit together, or because they represented something unique. These included:

church (unique in that it has spiritual representation), hairdresser, post office, number of streets on the maps

d) the feature of "place to pay bills" was dropped because the women who talked about going out for this purpose talked about going to the bank.

With these new features representing one column each (grocery, bank, malls, clothing and department stores, church, health services, transportation, neighbourhood landmarks, hairdresser, post office, recreation/volunteer, friends/family, other services) a third spread sheet was created. This final spread sheet also organized so that the women in each of the four sampling groups were grouped together. See Table 10.A for the content details of the cognitive maps produced by the women.

In summary, the cognitive maps were analysed using a modified content analysis approach. The findings supplemented the interview data with respect to the nature of the women's community mobility. In addition, data from the maps provided visual information on the scope of the women's mobility and on how they defined their area of the city.

Table 10.A: Details of Cognitive Map Contents, by Individual Participant

Neighbourhood Resource Level & Mobility Level	Participant	# of Grocery Stores	# of Banks	# of Malls	# of Clothing or Department Stores	# of Churches
RR/I	Freda	1	-	1	2	-
	Fay	1	1	1	-	-
	Sara	1	2	-	-	-
	Tannis	2	1	-	2	-
	Diane	-	1	1	-	1
	Rose	3	1	1	1	-
RR/L *	Sylvia	2	1	-	-	-
	Yvonne	-	-	-	-	-
	Catherine	3	1	-	-	-
	Wilma	-	-	1	-	-
RP/I	Helen	1	2	2	-	-
	Connie	-	1	-	-	1
	Sally	3	-	-	2	-
	Jane	2	-	1	-	1
	Louise	1	1	1	1	1
	Mary	2	-	-	2	1
	Linda	1	1	-	-	-
	Stella	-	-	3	-	-
RP/L +	Margaret	-	-	1	1	-
	Teresa	2	-	1	2	1
	Betty	-	1	-	-	-

Table 10.A: cont'd

Neighbourhood Resource Level & Mobility Level	Participant	# of Health Related Services	# of Transportation Sites	# of Neighbourhood Landmarks	# of Hair-dressers	# of Post Offices
RR/I	Freda	-	-	-	-	-
	Fay	1	-	1	-	-
	Sara	-	2	1	-	-
	Tannis	1	-	-	-	-
	Diane	-	1	-	-	-
	Rose	-	1	-	-	1
RR/L *	Sylvia	-	-	-	-	1
	Yvonne	-	-	1	-	-
	Catherine	1	-	-	-	1
	Wilma	-	-	1	-	-
RP/I	Helen	3	1	1	1	1
	Connie	-	2	3	1	-
	Sally	2	-	-	-	-
	Jane	-	-	1	-	-
	Louise	1	3	1	-	-
	Mary	-	-	-	-	-
	Linda	-	-	1	1	-
	Stella	1	-	-	-	-
RP/L +	Margaret	1	-	-	-	-
	Teresa	1	-	-	-	-
	Betty	-	-	1	1	1

Table 10.A: cont'd

Neighbourhood Resource Level & Mobility Level	Participant	# of Recreation and/or Volunteer Sites	# of Friends or Family	# of Streets Marked	Other Services
RR/I	Freda	3	-	9	-
	Fay	2	1	10	airport
	Sara	3	1	5	-
	Tannis	1	-	2	liquor store
	Diane	-	-	2	-
	Rose	-	-	3	card shop
RR/L *	Sylvia	-	-	4	-
	Yvonne	1	-	2	-
	Catherine	-	-	9	2 book stores, vet clinic, cleaners, antique store
	Wilma	2	1	5	-
RP/I	Helen	4	4	4	-
	Connie	1	2	7	7-11 store
	Sally	2	-	14	
	Jane	1	1	2	1
	Louise	2	6	13	-
	Mary	4	2	2	-
	Linda	-	-	3	travel office
	Stella	-	-	8	-
RP/L +	Margaret	-	1	3	-
	Teresa	-	-	7	-
	Betty	-	1	7	-

* Brenda did not draw a map at the end of her interview because she said that she did not go anywhere
+ Gertrude was unable to draw a map because of a severe hand tremor

APPENDIX 11: THE PARTICIPANTS

In total, 23 women participated in this study and were interviewed in their homes. At the beginning of each interview, information was collected on the woman's background, including her age, education and work history, living situation, and health and financial status. Since the study included four different sampling groups, depending on the resource neighbourhood and the mobility status of each woman, this summary of the demographic data contains this framework within it.

AGE, MARITAL STATUS, HOUSING & BIRTH PLACE

Some of the studies cited in the literature review suggest that age, having a spouse that drives, and living in a familiar area can influence an older person's community mobility (Appendix 1). Therefore, information on this combination of personal (e.g., age) and structural (e.g., housing) factors was gathered. Although birth place has not been suggested as a factor that influences community mobility, it was felt that having this data would provide additional contextual information about the women and their life experiences, and therefore it was also included in the data collection. A narrative description of each of these four variables is provided below, by sampling group. In addition, the information is summarized on Table 11.A.

Table 11.A: Summary of Age, Marital Status, Housing & Birthplace, by Sample Categories and Number of Respondents

	RR/I	RR/L	RP/I	RP/L	Overall Total
Age Groups	75.7	78.4	73.8	77	75.9 (group mean)
Marital Status:					
Married	1	1	4*	4	10
Widowed	2	2	3	-	8
Separated/Divorced	2	-	-	-	2
Never Married	1	1	1	-	3
Housing:					
House	3	3	8	2	16
Age-Integrated Apt	3	-	-	1	4
Age-Segregated Apt	-	2	-	1	3
Birthplace:					
Canada	4	5	4	4	17
Other	2	-	4	-	6
Total Women/Group	6	5	8	4	75.7

* includes one common-law union

Resource-rich neighbourhood, Independent mobility:

The 6 women in this group had an average age of 75.7, with a range from 70 to 81 years. Two of the women are widowed and another has never been married. One has been separated from her husband for 41 years, and the youngest woman of this group was divorced for 20 years. The oldest woman was married. Three of the women live in single-dwelling houses, while the other three reside in age-integrated apartment buildings. Two of these women had immigrated to Canada at a young age, one from

India (her parents were missionaries) and one from Russia. The remaining four were raised in Canada.

Resource-rich neighbourhood, Limited mobility:

The average age of the five women in this group was 78.4 years, with a range from 69 to 85 years. The three oldest women in this group were widowed and living alone. Of these widows, two of them are living in single-dwelling houses, while the one who has been widowed the longest (16 years), lives in an age-segregated apartment building. The two widows living in houses had both been widows for less than a year at the time of the interview. Of the two remaining women in this group, one is married and lives with her husband in a house. The other has never been married and lives alone in an age-segregated apartment building. Four of the women were born and raised in rural communities in either Manitoba or Saskatchewan, and one has lived her entire life in Winnipeg.

Resource-poor neighbourhood, Independent mobility:

The eight women making up this group had an average age of 73.8, with a range from 70 to 80 years. Four of them are married (one common-law) and live in single-dwelling houses with their husbands. Three others have been widowed for less than 15 months each, and each live alone in single-dwelling houses. The remaining woman has never been married, and lives alone. Two of the women were born and raised in England, one in Latvia, and one in the southern United States. Of the four remaining women, three were born and raised in Winnipeg, and the other came here from Ontario.

Resource-poor neighbourhood, Limited mobility:

The average age of the four women in this group was 77 years, with a range from 69 to 88 years. All of the women were married, although one of them lives alone in an age-segregated apartment building because her husband is in a personal care home. Of the remaining three, two live in houses, and one lives in an age-integrated apartment building. All of the women were born and raised in a rural area, three in Manitoba and one in Ontario.

MODE OF TRANSPORTATION

Having a flexible mode of transportation has been shown to positively influence community mobility (Appendix 1). The most flexible mode is considered to be driving one's own automobile. Walking is considered to be the least flexible mode since it places the greatest limitation on the distance that can be travelled. The modes of transportation used among the women in each of the sampling groups is described in the paragraphs which follow, and is summarized on Table 11.B.

Table 11.B: Summary of Mode of Transportation, by Sample Categories and Number of Respondents

	RR/I	RR/L	RP/I	RP/L	Overall Totals
Drives Self	3	-	2	1*	6
Bus	-	-	1	-	1
Mixed - Drives & Bus	-	-	2	-	2
Mixed - Bus & Walks	3	-	3	-	6
Family	-	3	-	2	5
Mixed - Family & Handi-Transit	-	2	-	1	3
Total women/group	6	5	8	4	23

*looking for an alternative mode of transportation at the time of the interview

Resource-rich neighbourhood, Independent mobility:

Three of these women drive their own cars, while two of them are former drivers. Only one has never driven a car. Each of the three women who do not currently drive primarily use the bus to move around in the city. They also walk to some local destinations, and get a few rides from family or friends, particularly in the evenings.

Resource-rich neighbourhood, Limited mobility:

None of the women in this group currently drive a car, although two of them are former drivers. One has chosen not to drive because her husband is now retired and is available to drive her around where she wants to go, the other lost her license three years ago. As a result, all five women in this group depend on some other person

or service for their community mobility. Three of them receive most of their rides from their daughters, and one goes with her husband. The remaining woman rarely goes out, but when she does, she is most likely to go with a sibling. Although two of these five women have handi-transit cards, only one of them uses it regularly to go for medical and dental appointments. The other chooses not to use her card because of a previous bad experience with the service.

Resource-poor neighbourhood, Independent mobility:

Four of these eight women are drivers, although two of them also use the bus, particularly to travel downtown. The other four women all use the bus as their primary mode of community mobility, although three of them also do a substantial amount of walking in their local area. Only one of the non-drivers is a former driver, and she is not sure why she stopped. Another of the non-drivers hires a private driver to take her grocery shopping in the winter.

Resource-poor neighbourhood, Limited mobility:

Only one woman in this group has never driven a car, while two of them still have active driver's licenses. Although one woman has given up her driver's license because of health problems, both women with active licenses feel that they should not be driving due to deteriorating health. As a result, all four of the women in this group depend to some degree on obtaining rides from other people, two of them go with their husbands, and one travels with her daughter, handi-transit or by taxi. One woman was still driving at the time of the interview, although as little as absolutely possible. She

was actively seeking an alternative means of getting around since she planned to stop driving once the winter arrived.

HEALTH

Poor health is viewed as both a barrier to as well as a result of limited community mobility (Appendix 1). Good health is seen to facilitate community mobility. As a result, understanding the self-perceived health status of the participants was felt to be critical to understanding their varying levels and experiences of community mobility. Participant's were asked to rate their health and base their rating by comparing their health to other people their age. The health of the participants within each sampling group is described below, and a summary is provided on Table 11.C.

Table 11.C: Summary of Health Status, by Sample Category and Number of Respondents

	RR/I	RR/L	RP/I	RP/L	Totals
Self-Rated Health Status:					
Excellent	-	1	3	-	4
Good	4	3	3	-	10
Fair	2	1	2	3	8
Poor	-	-	-	-	0
Bad	-	-	-	-	1
Walking Aid		4		2	6
Total Women/Group	6	5	8	4	23

Resource-rich neighbourhood, Independent mobility:

Four of the women described their health as good, and qualified their responses with comments about arthritis and/or high blood pressure. The two women who described their health as fair have both had open heart surgery in the past five years. None of the women required any form of walking aid at any time of the year.

Resource-rich neighbourhood, Limited mobility:

Only one woman in this group who described her health as excellent. Of the remaining four, three chose the descriptor "good", while one described her health as fair. Each of these four women use a walking aid to walk out of doors, and one required a walking aid at all times.

Resource-poor neighbourhood, Independent mobility:

Three women described their health status as excellent, and one said that her health was between excellent and good³⁵. Of the four remaining women in this group, two described their health as good, and two said fair. None of the women required any form of walking aid at any time of the year.

Resource-poor neighbourhood, Limited mobility:

Three women described their health as fair and each cited health problems such as arthritis and/or high blood pressure. One woman described her health as bad because of the difficulties she has managing her diabetes. None of them are regularly

³⁵ This woman is recorded as "good" for the purposes of summaries and tables.

using a walking aid, although two of them noted that they sometimes use a cane in the winter time.

EDUCATION AND WORK

Older people who continue to work, as well as those who have higher levels of education, tend to move around in their communities with greater frequency than those who are not working or who have less education (Golant, 1984a). Gathering this information was therefore felt to be important. The summaries of the participant's work and education history is described below, and is provided on Table 11.D.

Table 11.D: Summary of Education and Work, by Sample Categories and Number of Repondents

	RR/I	RR/L	RP/I	RP/L	Totals
Educational Level Achieved:					
Less than Grade 6	-	-	-	1	1
Some secondary school *	2	1	2	2	7
Finished High School #	2	2	2	-	6
High School & Vocational Training +	1	1	-	1	3
High School & University	1	1	4	-	6
Worked Outside the Home	6	4	8	4	22
Total Women/Group	6	5	8	4	23

* For this purpose, some secondary school refers to completion or partial completion of Grades 7 through 10.

Includes Grades 11 and 12 since all of the women who finished Grade 11 indicated that at the time they attended school, completing Grade 11 was considered to be completing high school. Grade 12 was optional.

+ Including teacher's training at "Normal School"

Resource-rich neighbourhood, Independent mobility:

All of the women in this group had worked outside of the home in their pre-retirement years. Two had worked for 45 years, one for 31 years, and two others for approximately 20 years. One of the women had worked as a substitute teacher and was unable to indicate for how many years she had worked in this capacity. Besides the teacher, the primary occupations of these women included accounting clerk (2), health care aide, waitress and secretary.

Two of the women had completed Grade 10 and had some additional, short-term vocational training. As a result, they had the lowest education in this group of women. One woman had completed a Bachelor's degree, and the remaining three all completed high school³⁶ plus some form of vocational training. None of the six women were working at the time of the interview.

Resource-rich neighbourhood, Limited mobility:

The educational level of these five women ranged from Grade 7 to a nearly complete Bachelor's degree, and four of them had worked outside of the home. The oldest woman in the group worked part-time until she was 70 years old. The primary occupations of the women who had worked included hospital cook, dental assistant, librarian and teacher. For two of these four women their secondary occupation was as

36

For two of these women, completing high school meant completing Grade 11 versus Grade 12.

a clothing store clerk. Only one woman in this group has not worked outside of the home, but rather has been a homemaker for her entire life.

Resource-poor neighbourhood, Independent mobility:

The educational level of this group of women ranged from Grade 8 (2 women) to a completed University degree plus teacher's training. All of the women had worked outside of the home at some point in their lives, but all seven³⁷ who had chosen to marry never worked for a salary after their marriages. The only single woman in the group had also worked the longest, a total of 35 years. The occupations of the women included teacher, clinical dietician, secretary (2), seamstress, switchboard operator, bookbinder, and cook.

Resource-poor neighbourhood, Limited mobility:

The education of these four women ranged from Grade 5 to Grade 12 plus teacher's training. All of the women had worked outside of the home at some point, although two of them chose not to work after they married. One was a teacher and the other a waitress. The other two women continued to work after marriage. One of them worked in a poultry plant for a number of years before marriage, after which time she worked in her husband's transportation business. The final woman has held a variety of jobs in her life ranging from doing housework to working as a health care aide.

³⁷ Includes the one woman living in a common-law marriage

FINANCES AND INCOME

Greater income often provides greater flexibility in transportation options, particularly with respect to being able to afford to hire taxis or private drivers. Less income can result in people having to give up their vehicles because of the expense of fuel, insurance and ongoing maintenance (Appendix 1). Having an understanding of income therefore can place transportation options in context. The finances and income of the women interviewed is described in the paragraphs which follow. Table 11.E provides an additional summary.

Table 11.E: Summary of Finances and Income, by Sample Categories and Number of Respondents

	RR/I	RR/L	RP/I	RP/L	Totals
Income Sources:					
Canada Pension Plan*	6	5	4	4	19
Old Age Security	6	5	8	4	23
Guaranteed Income Suppl.	1	-	1	1	3
Private Pension+	4	1	2	2	9
Income rating:					
Very Well	2	2	3	1	8
Adequately	3	3	4	2	12
With Difficulty	1	-	1	1	3
Total Women/Group	6	5	8	4	23

* Including husband's CPP or a portion thereof

+ Including husband's private work pension or a portion thereof

Resource-rich neighbourhood, Independent mobility:

All of the women in the group collect Old Age Security and Canada Pension. Only one woman collects the Guaranteed Income Supplement, and she was also the

only woman who indicated that her current income was meeting her needs with difficulty. Two women collect private work pensions, and both of the widows receive pensions from their husbands' employers. Three of the women described their financial status as adequate, while two others felt that their income was meeting their needs very well.

Resource-rich neighbourhood, Limited mobility:

All of the women collect Old Age Security, and none receive the Guaranteed Income Supplement. Three of the women receive their own Canada Pension, while two others receive a portion of their husband's pension. One of these two women also receives her husband's private work pension. Two women indicated that their income was meeting their needs very well, and the other three described their financial well-being as adequate.

Resource-poor neighbourhood, Independent mobility

All of the women in this group collect Old Age Security, but only one of them collects a Canada Pension as a result of her previous work. Three of the widows collect a portion of their husband's Canada Pension, and two of them also collect a portion of their husband's private work pension. One woman receives the Guaranteed Income Supplement, and another one thought she did but was not certain. In terms of their ratings of their financial status, three women described their income as meeting their needs very well. Three others described it as adequate. One woman noted that her income was meeting her needs with difficulty.

Resource-poor neighbourhood, Limited mobility:

All of the women collect Old Age Security, and all of their husbands receive a Canada Pension. Two of the women's husbands receive private work pensions. One woman and her husband receive the Guaranteed Income Supplement. Only one woman in this group felt that her income was meeting her needs very well. Two others described their income as adequate, but were concerned about how long their finances would last. One of these women anticipates difficulties in the next few years because of having to pay rent for her apartment as well as the per diem for her husband's personal care. The final woman describes her income as meeting her needs with difficulty, and is concerned that she and her husband may not be able to maintain their home much longer.

CONCLUSION

The women who participated in this study ranged in age from 69 to 88, and the overall mean age was 75.9 years. Background information was collected from each woman at the beginning of her interview, and the variables of interest were based on the review of the literature (Appendix 1). Although statistical analysis was attempted using chi-squared tests, empty cells and small numbers per cell made the value of the results highly questionable. As a result, this summary is provided for descriptive purposes only.

**APPENDIX 12: INDIVIDUAL PARTICIPANT
CHARACTERISTICS CHARTS**

Table 12.A: Women Who Live in a Resource-Poor Neighbourhood and have Limited Mobility

NAME	AGE	MODES	NATURE OF AVERAGE WEEKLY OUTINGS	SELF-RATED HEALTH	LIVING SITUATION
MARGARET	88	Mode of mobility is quite variable. Has a handi-transit card, goes with her daughter, and sometimes takes a taxi. In good weather will walk across the street to visit her husband.	4-5 outings - groceries, visiting husband in PCH	Fair	Lives alone in an age-segregated apartment
GERTRUDE	80	Mode of mobility is in transition. Is a driver but is in the process of giving it up because of health problems. Has no alternative mode yet arranged.	2 outings - groceries, hairdresser	Fair	Lives in an age-integrated apartment with her husband
TERESA	71	Is a driver but drives only when absolutely necessary. Husband does the driving.	3-4 outings - groceries, shopping, meals out, church	Bad	Lives in a house with her husband
BETTY	69	A former driver who gave up her license for health reasons; now gets all rides from her husband.	2-3 outings - hairdresser, shopping, visiting mother-in-law in PCH	Fair	Lives in a house with her husband

Table 12.B: Women Who Live in a Resource-Poor Neighbourhood and have Independent Mobility

NAME	AGE	MODES	NATURE OF AVERAGE WEEKLY OUTINGS	SELF-RATED HEALTH	LIVING SITUATION
HELEN	72	A driver who uses the bus when her car is in for repairs.	4-6 outings - groceries, hairdresser, volunteering, out with friends	Between excellent and good	Lives alone in house (widowed 1.5 years).
CONNIE	77	A former driver who now uses the bus, walks or goes with friends. Is not sure why she stopped driving.	4-5 outings - groceries, babysitting grandchildren, club activities	Excellent	Lives in house with husband
SALLY	70	A non-driver who walks or takes the bus when the weather is good, and hires a private driver in the winter.	4-5 outings in summer - groceries; only 1 per month in winter	Fair	Lives in house with husband
JANE	80	A driver who takes the bus to go downtown or across the city, and chooses not to drive in the winter.	4-6 outings - groceries, Tai Chi, shopping, lunch with friends; visits husband's grave & visits sister in PCH monthly	Good	Lives alone in house (widowed less than 1 year).
LOUISE	75	A non-driver who takes the bus, walks or goes with friends.	5-6 outings - 4 volunteer, groceries, country drives	Excellent	Lives alone in house.
MARY	70	A non-driver who takes the bus or walks.	4-5 outings - groceries, out with friends	Good.	Lives alone in house (widowed 1 year)
LINDA	75	A driver who can't remember if she has ever used the bus.	5-6 outings - groceries	Excellent	Lives in house with husband.

STELLA	73	A driver who takes the bus to go downtown.	1 outing - groceries. Is a hobbyist astrologer who attends monthly meetings	Fair	Lives in house with common-law husband.
--------	----	--	---	------	---

Table 12.C: Women Who Live in a Resource-Rich Neighbourhood and have Limited Mobility:

NAME	AGE	MODE	NATURE OF AVERAGE WEEKLY OUTINGS	SELF-RATED HEALTH	LIVING SITUATION
BRENDA	71	A former driver who lost her license. Has handi-transit but will not use it. Refuses rides from friends.	Does not get out of her apartment building for months at a time.	Fair	Lives alone in an age-segregated apartment building. Never married.
SYLVIA	80	A non-driver who gets rides from friends or family, and takes a cab if necessary.	2-3 outings - groceries, hairdresser, church	Good	Lives alone in house (widowed 16 years).
YVONNE	85	A non-driver who uses handi-transit, goes with her daughter or uses the apartment-run free van service.	1-2 outings - with daughter, walks around building	Good	Lives alone in an age-segregated apartment building (widowed 5 years).
CATHERINE	82	A non-driver who goes with her daughter or takes a taxi.	1-2 outings - with daughter	Good	Lives alone in house (widowed less than 1 year)
WILMA	74	A former driver who stopped driving when her husband retired. He does all driving now, and she is reluctant to go on the bus alone.	1-2 outings - with husband	Excellent	Lives in house with husband

Table 12.D: Women Who Live in a Resource-Rich Neighbourhood and have Independent Mobility

NAME	AGE	MODE	NATURE OF AVERAGE WEEKLY OUTINGS	SELF-RATED HEALTH	LIVING SITUATION
FREDA	73	A non-driver who uses the bus or walks.	4-5 outings - bowling, carpet bowling, errands	Good	Lives with sister in house. Separated 41 years.
FAY	73	A driver who uses the bus when her car is in for repairs.	5-6 outings - groceries, swimming, visiting sister	Good	Lives with sister in house. Never married.
SARA	77	A former driver who can't remember why she stopped. Now takes the bus or walks.	4-5 outings - groceries, meeting with friends	Fair	Lives alone in house (widowed 10 years)
TANNIS	70	A former driver who gave up her car for financial reasons. Now uses the bus, goes with family or walks.	3-4 outings - groceries, visiting children, shopping	Fair	Lives alone in age-integrated apartment building. Divorced 20 years
DIANE	80	A driver who is unable to walk more than one block or take the bus because of arthritis.	3-4 outings - groceries, church activities, visiting children	Good	Lives alone in an age-integrated apartment building (widowed 20 years).
ROSE	81	A driver who cannot remember the last time she used the bus.	4-5 outings - groceries, going out for lunch, takes friend shopping	Good	Lives with husband in an age-integrated apartment building