

Title: National Evaluation of Policies Governing Funding for Wheelchairs and Scooters in Canada

Emma M. Smith, MScOT, PhD Candidate^{1,2,3,4}, Lynn Roberts⁵, MaryAnn McColl, PhD⁵, Kathleen Martin Ginis, PhD⁶, William C. Miller, PhD, FCAOT^{2,3,4,7}

¹Graduate Program in Rehabilitation Sciences, Faculty of Medicine, University of British Columbia, Vancouver, BC, Canada; ²GF Strong Rehabilitation Research Lab, Vancouver, BC, Canada; ³Rehabilitation Research Program, Vancouver Coastal Health Research Institute, Vancouver BC, Canada; ⁴International Collaboration on Repair Discoveries, Vancouver, BC, Canada; ⁵Faculty of Health Sciences, Queens University, Kingston, ON, Canada; ⁶ Department of Kinesiology, McMaster University; ⁷Department of Occupational Sciences and Occupational Therapy, Faculty of Medicine, University of British Columbia, Vancouver BC, Canada

Publication Date: March 5, 2018

Abstract

Background. Wheelchairs, scooters, and related equipment are essential for the well-being of individuals with limited mobility and impact participation, health, and quality of life. **Purpose.** Our objective was to identify and evaluate policies governing equipment funding for Canadian adults. We reviewed funding legislation and program documentation for adult Canadians (≥ 18 years of age) covered by their provincial, territorial, or federal health care plan. Documents were obtained online or through administrative staff. Policy evaluation was guided by the Disability Policy Lens from the Canadian Disability Policy Alliance. **Key Issues.** Coverage ranges from full funding for all individuals within the jurisdiction to programs limited by strict eligibility criteria. Each jurisdiction defines ‘disability’ or ‘basic/essential need’ differently, contributing to further funding disparities. **Implications.** Funding policies differ substantially across Canada, resulting in unequal access to equipment dependent on province or territory. We identified eligibility, funding, definitions of mobility, repair and replacement, and prescriber requirement benchmarks that represent policy targets for improved access.

Key Words

wheeled mobility; disability; *health policy; *disability; funding

1 Introduction

2 The United Nations Convention on the Rights of Persons with Disabilities
3 (UNCRPD) outlines eight general principles to promote full inclusion of individuals with

4 disabilities through participation in society “on an equal basis with others” (United
5 Nations, 2006). These principles recognize the importance of individual autonomy and
6 independence, non-discrimination, participation and inclusion, equality of opportunity,
7 and accessibility (United Nations, 2006). Signatories, of which Canada is one, are called
8 upon to take any measures, including relevant legislation, to bring these principles into
9 force and to “promote availability and use of new technologies including... mobility aids,
10 devices, and assistive technologies...” (United Nations, 2006). Article 20 speaks
11 specifically to the right to personal mobility and independence by facilitating access to
12 mobility devices at an affordable cost (United Nations, 2006).

13 Wheeled mobility equipment is critical to the well-being of individuals with limited
14 mobility and enhances participation, health, and quality of life. These devices, including
15 manual wheelchairs, powered wheelchairs, and scooters, and related equipment,
16 including cushions, backrests, and customized positioning products, provide access social
17 participation that would not otherwise be possible and may have implications for overall
18 health (Brandt, Iwarsson & Ståhle, 2004; Lofqvist, Pettersson, Iwarsson, & Brandt, 2012;
19 Salminen, Brandt, Samuelsson, Töytäri, & Malmivaara, 2009). The timely provision of
20 wheelchairs, scooters, and related equipment (wheeled mobility equipment) that meets
21 the needs of individuals with mobility limitations may also provide opportunities for risk
22 reduction through fall prevention and appropriate postural support. Unfortunately, access
23 to this basic right is often constrained by a number of factors related to funding
24 challenges, including difficulty accessing necessary equipment, both in Canada and
25 globally. Funding is a critical step in the wheelchair service delivery process and is

26 identified by the World Health Organization as a critical barrier for access to wheeled
27 mobility equipment (2012).

28 In order to address the conditions of the UNCRPD and ensure these basic rights are
29 met, it is incumbent on state entities to provide funding to cover these costs (World
30 Health Organization, 2012). In Canada, there are approximately 288,800 community-
31 dwelling individuals that currently use a wheelchair or scooter (Smith, Giesbrecht,
32 Mortenson, & Miller, 2016). This estimate does not include any individuals that may be
33 living in group arrangements, including residential care facilities, where it estimated that
34 as many as one in two residents require support from a mobility aid (Shields, 2004). In
35 addition, recent estimates suggest that as many as one in six community-dwelling
36 Canadians that have mobility limitations do not have access to the device they require
37 (Giesbrecht, Miller, & Smith, 2014). The mean cost of a wheelchair or scooter ranges
38 from several hundred (US) dollars for a basic manual wheelchair to several thousand
39 (US) dollars for a powered wheelchair (Hubbard et al., 2007). For those with the highest
40 physical needs, this cost can reach higher than \$25,000 (USD) for a powered wheelchair
41 with all necessary accessories (Hubbard et al., 2007). Considering the median individual
42 income in Canada was just over 32,000 (CAD) in 2013 (Statistics Canada, 2015), these
43 costs are often impossible for an individual to manage without assistance from
44 government funding.

45 The importance of context in the evaluation of funding in any particular jurisdiction
46 cannot be underestimated. For example, in the UK, funding differences between
47 jurisdictions resulted in a disparity in access to these important devices (White &
48 Lemmer, 1998). Canada is a federation that governs according to federal and provincial

49 legislation in a total of fourteen jurisdictions: federal, 10 provinces, and 3 territories. To
50 date, Canada has not adopted any specific legislation pertaining to persons with
51 disabilities, although there has been recent movement towards the development of federal
52 accessibility legislation which may help to further inform these discussions. While there
53 are certain rights protected under the Canadian Charter of Rights and Freedoms, the
54 inclusion of individuals with disabilities is addressed only in the context of equal
55 protection of the law. It does not specify the inclusion of individuals with disabilities
56 within their communities or the mechanisms to achieve full inclusion and participation.

57 For health related matters, Canada operates a national health insurance program
58 governed by the Canada Health Act (CHA) (1985). The objective of the CHA is to
59 “protect, promote and restore the physical and mental well-being of residents of Canada
60 and to facilitate reasonable access to health services without financial or other barriers”
61 (1985, c.6, s3). As specific funding for health care falls under provincial jurisdiction
62 according to the Constitution Act of 1867, this is facilitated by a series of health transfer
63 payments from the federal government to the provinces and territories for allocation
64 according to the principles of public administration, comprehensiveness, universality,
65 portability, and accessibility (Canada Health Act, 1985). The principle of
66 comprehensiveness ensures that costs for medically necessary services (those provided by
67 hospitals and medical practitioners) are covered, but it leaves the services of associated
68 health care providers and other costs up to the provincial governments to determine
69 (Canada Health Act, 1985). As a result, the provision of health services varies widely
70 across jurisdictions, and there is no requirement in the federal legislation to provide

71 funding for community-based services or to cover the cost of assistive devices, including
72 wheeled mobility equipment.

73 There has been minimal attention in the scientific literature to the funding for
74 wheeled mobility equipment despite the potential of funding issues to impact every step
75 of the service delivery process (Eggers et al., 2009). A survey conducted in Australia of
76 powered wheelchair and scooter users found that the purchase of over two thirds of
77 devices are self-funded, with approximately 15% funded through government-based
78 programs in combination with fees from users (Edwards & McCluskey, 2010), while the
79 remaining are funded by government or private health insurance plans. A similar review
80 of provision of wheeled mobility equipment by the National Health Service (UK) found
81 that the lack of funding for outdoor powered wheelchairs challenges users who required a
82 powered device for daily mobility and further limited users to the purchase of indoor
83 devices only (White & Lemmer, 1998). This report also identified resource management
84 issues, including equality of access for all persons, as a critical factor which contributes
85 to effective service provision.

86 Rehabilitation practitioners (occupational or physical therapist) that are working with
87 individuals on addressing their mobility needs typically initiate the process of obtaining
88 funding. The rehabilitation practitioner may be engaged in seeking available funding
89 sources, justifying the individual's need to obtain funding, and advocating for appropriate
90 equipment if funding is denied. Obtaining funding is often the largest barrier to
91 addressing the individual's mobility needs and, at times, may even inform if the
92 practitioner even engages in an assessment process with the individual. Furthermore,
93 obtaining funding is a time consuming procedure, and individuals may wait for months or

94 even years prior to obtaining necessary equipment. Mortenson and Miller identified
95 funding as a factor that impacts the choice in wheeled mobility equipment; consideration
96 of available funding has the potential to limit individuals' choices with respect to the
97 equipment which best suited their needs (2008). As a result, the rehabilitation practitioner
98 is placed in an undesirable 'gatekeeper' position, by limiting the choices available to
99 those that fit the funding model, rather than recommending the best mobility device to
100 suit the individual's needs (Mortenson & Miller, 2008).

101 The Disability Policy Lens was developed by the Canadian Disability Policy Alliance
102 (<http://www.disabilitypolicyalliance.ca/research/disability-policy-lens/>) to provide a
103 structure to evaluate the policies affecting people with disabilities. The Lens consists of
104 nine questions that characterize the approach to disability policy (Figure 1). These
105 questions do not necessarily evaluate the effectiveness of policy but, rather, probe key
106 issues about how policy is framed. They represent decisions that were made by policy
107 makers, whether intentionally or not, about who disabled people are, what they need, and
108 what their relationship is to the broader society. Research is needed that applies the
109 Disability Lens to explore those policies that support mobility choices for individuals
110 with limitations in personal mobility. This information will highlight the differences in
111 approach by jurisdiction, their potential impact on individuals with disabilities, and
112 contribute to the development of policy that will promote equitable participation for all
113 individuals (Mortenson, Hammell, Luts, Soles, & Miller, 2015).

114 [Insert Figure 1 Here]

115 The objective of this review was to identify and evaluate the framing of key issues in
116 the federal and provincial policies governing wheeled mobility equipment funding for

117 adults in Canada. In particular, we aimed to determine how provincial policies differ
118 from one another with respect to eligibility, provision guidelines, coverage limitations,
119 and other relevant criteria guided by the Disability Policy Lens.

120 **Approach**

121 We undertook a review of the legislation and program documentation pertaining
122 to funding of wheelchairs, scooters, and associated products (wheeled mobility
123 equipment) for adult Canadians (aged 18 or older) covered by their provincial health care
124 plans. Wheeled mobility equipment encompassed manual and powered wheelchairs,
125 scooters, and additional related equipment including cushions, backrests, and other
126 components or positioning devices which are required for use of the wheelchair or
127 scooter. Within each province, we identified the relevant legislative or ministerial body
128 responsible for funding for access to wheeled mobility equipment. We included programs
129 in the review, which provided wheeled mobility equipment to members of the public
130 covered by their provincial health plan or a relevant federal body (e.g., First Nations). We
131 excluded programs, which were specific to individuals injured at work (i.e. Workers
132 Compensation), individuals injured in vehicular accidents, and private or employer paid
133 health care plans (e.g., Veterans, Blue Cross) as these are not available to all citizens
134 through their public health coverage. We were interested primarily in coverage which is
135 provided by the governments for all individuals in a given health region to align with the
136 stipulations put forth in the UNCRPD and impacted by the Canada Health Act.

137 In this evaluation, we have focused exclusively on the ‘program of last resort’
138 offered by the federal or provincial government that provides coverage for mobility
139 devices when no supplementary or auxiliary coverage is available. With regard to

140 relationships with other policies potentially affecting the individual, there will most
141 certainly be relationships with other policies within the jurisdiction, such as workers
142 compensation, auto insurance, employment, and labour policy. There will also be overlap
143 with private sector insurance and the corporate policies governing that coverage. It is
144 beyond the scope of this review to provide details about these intersections; however, we
145 caution the interested reader to note that they will undoubtedly exist.

146 The Disability Policy Lens frames our evaluation. Specifically, there are three sets
147 of questions that help us to look more closely at how policies governing support for
148 mobility devices differ between jurisdictions: Who is included/excluded from
149 consideration, and which individuals decide who qualifies as disabled? (Question 2 -
150 Eligibility); Who wins and who loses when the policy is implemented, and how is the
151 allocation of scarce resources affected by this policy? (Question 8 - Stakeholders); and
152 How did this policy come into effect? (Question 9 - History). We do not explore history
153 in any detail here; but if the intention was to seek change in a particular policy or a
154 particular jurisdiction, it would be most advantageous to understand how the policy came
155 to be, and what forces within the jurisdiction shaped it.

156 The stakeholders for policy governing support for mobility devices (Question 8)
157 are typically consumers (i.e., people with disabilities themselves), vendors (i.e., public
158 and private sector agents who distribute and service mobility devices), and authorizers
159 (i.e., designated professionals with the authority to prescribe equipment specifications).
160 As one might imagine, their interests are not always in accordance with one another, and
161 structures within the policy may give preferential consideration to the interests of one
162 over another.

163 Finally, perhaps the most contentious issue in any disability policy is eligibility
164 (Question 2). What kind of disability renders one eligible to receive benefits, and who
165 makes the designation as to eligibility? This was the primary focus of the evaluation
166 across jurisdictions. For each specific program identified, we collected data relating to
167 recipient eligibility criteria, prescriber requirements, devices funded and specific funding
168 limits, repairs and maintenance, replacement time, and other information which had a
169 notable impact on the coverage provided (e.g., exclusions, definitions). Following data
170 collection, each set of program guidelines was reviewed by a practitioner experienced in
171 the provision of wheeled mobility equipment in the relevant province, as a form of data
172 verification for accuracy and completeness. We then compared details of each of the
173 provincial programs, specifically considering the impact on a variety of stakeholders,
174 including older adults and non-insured persons. Finally, we identified a set of benchmark
175 practices that may be used to guide effective and equitable service provision in the future.

176 **Findings**

177 Funding for wheeled mobility equipment varies widely across Canada, ranging
178 from coverage which is limited to specific groups (British Columbia, Nova Scotia, New
179 Brunswick, and Newfoundland and Labrador), to cost-shared or means-tested programs
180 (Alberta and Ontario), to fully covered loan or purchase programs for any individual with
181 coverage under his or her provincial health coverage (Territories, Saskatchewan,
182 Manitoba, Quebec). Table 1 outlines the programs and any relevant legislation that was
183 reviewed. Further information regarding relevant provincial Legislation and Regulation
184 (including those outside the scope of this review) is published by the Canadian Disability
185 Policy Alliance (McCull, Roberts, Smith, & Miller, 2015).

186 Table 2 provides province-by-province information regarding recipient eligibility
187 criteria and identifies a colour coded “stoplight” ranking system based on the type of
188 coverage provided. Provinces ranked “Green” offer access to wheeled mobility
189 equipment to any individual that has provincial health coverage and a need for a
190 wheelchair or scooter, without cost-share or income testing. Provinces ranked “Amber”,
191 similarly, offer access to all that hold provincial health coverage but have an income test
192 or cost-share associated with provision. Provinces ranked “Red” have funding programs
193 limited to those that qualify for a specific program (e.g. income support) or specific
194 diagnostic groups.

195 Table 3 provides province-by-province policy in each of the following key areas:
196 devices funded and specific limits, repairs and maintenance, replacement time, and
197 prescriber requirements.

198 [Insert Table 1 Here]

199 Table 1 shows that approximately half of the ‘programs of last resort’ which fund
200 wheelchairs and scooters are governed by legislation in their respective jurisdictions.
201 Nova Scotia, New Brunswick, Manitoba, Nunavut, and the Northwest Territories have no
202 explicit legislation guaranteeing funding for wheeled mobility equipment. In the Yukon
203 Territory, legislation covers one of two funding programs; however, the other is not
204 covered.

205 [Insert Table 2 Here]

206 Table 2 shows that all provinces and territories provide some level of basic
207 coverage for manual wheelchairs. However, this is often dependent on program criteria,
208 which may include associated age limits (seen in Table 1). In general, the type of manual

209 wheelchair (standard, lightweight, ultralight) is dependent on the assessed need for the
210 individual and the frequency and duration of use. Funding for powered wheelchairs is
211 typically provided to individuals who cannot propel manual wheelchairs and often
212 requires the individual to be capable of safely and independently operating the device as
213 well as an accessible residence. Scooters are not provided in the majority of provinces
214 and territories.

215 [Insert Table 3 Here]

216 Each province also differs in its definition of what is considered basic or essential
217 use for mobility devices. At the most basic, devices are considered essential for mobility
218 if they are used primarily within the home or to access the home (Ontario Assistive
219 Devices Program (ADP)), while most other provinces and territories acknowledge use
220 within the community as essential for individual mobility and will provide devices for
221 community access regardless of specific use within the home.

222 Eligibility to prescribe devices also varies across the country; however, all
223 programs require prescription by a regulated health professional as outlined in Table 3.

224 **Critical Discussion and Implications for Practice**

225

226 This study set out to discover details of policy governing funding for wheelchairs,
227 scooters, and related equipment in 14 jurisdictions across Canada (10 provinces, 3
228 territories, and the federal government). We found that:

- 229 • Canadians do not have equal access to funding for wheelchairs, scooters,
230 and related equipment across jurisdictions. Within jurisdictions, funding
231 often varies for members of different groups (e.g., older adults, residential
232 care, individuals with chronic conditions).

- 233 • Coverage ranges from full funding for necessary equipment for any
234 individual who is eligible for health insurance coverage to funding which
235 is limited to those who meet eligibility criteria of a specific program (e.g.,
236 income or disability support programs).
- 237 • The requirement for an income test or cost-sharing arrangement is
238 inconsistently applied across the country. Approximately half of the
239 jurisdictions do not require any financial contribution on behalf of the
240 wheelchair user.
- 241 • The definitions of ‘disability’ and ‘basic/essential need’ vary substantially
242 between jurisdictions. While some jurisdictions consider access to the
243 home and community to be essential for access to mobility device funding,
244 others will fund devices only if they are used to access the home
245 environment.

246 It was interesting to note the variability in legislation supporting programs across
247 the country. Although legislation is available in many jurisdictions, a few provinces, and
248 all territories, do not enjoy the same protection. Similar to other countries, including
249 Australia, Canadian jurisdictions differ with respect to eligibility and specific
250 implementation of the programs, including variation by state and territory for eligibility,
251 preferred items, cost ceilings, payment systems, and prescriber requirements (Barbara &
252 Curtin, 2008). Each of these differences has the potential to impact individuals with
253 disabilities in differing ways. One instance where this impact is clear is the global
254 eligibility criteria. In the majority of Canadian jurisdictions, individuals are eligible for
255 coverage for wheeled mobility equipment at any age and regardless of their employment

256 status; however, there are notable exceptions. In British Columbia, for example,
257 individuals are only eligible as long as they have coverage through the employment and
258 income assistance program. This places individuals who are employed, students, or those
259 over the age of 65 at a disadvantage, as they are not eligible for this program. In Prince
260 Edward Island, there is a similar disadvantage for individuals over the age 65. It has been
261 suggested that policies which limit access to wheeled mobility equipment by age amounts
262 to ageism in prescription, which actually curbs, rather than facilitates, use and
263 participation (Mortenson, Clarke, & Best, 2013). This is of particular concern given that
264 the need for wheelchairs increases with age. In fact, recent data from the Canadian
265 Survey on Disability confirms the use of wheelchairs by proportion of the community-
266 dwelling population increases in older age, reaching just over 4% of this population after
267 age 75 (Smith, Miller, & Giesbrecht, 2015). Clinicians working with older adults or those
268 who are turning 65 may, therefore, need to consider the impact the loss of funding may
269 have on their clients' abilities to obtain the necessary equipment, in addition to the time
270 required to obtain said funding prior to one's 65th birthday.

271 Across Canada, jurisdictions differ in terms of requirements for financial hardship
272 or income tests or a cost-sharing arrangement. In their study of occupational therapy and
273 equipment funding schemes, Barbara and Curtin urge providers and policy makers to
274 challenge the concept that financial hardship makes a person more eligible for mobility
275 device support than someone with an income (2008). There are a number of jurisdictions
276 (e.g., Prince Edward Island, Newfoundland and Labrador) where funding is only
277 provided to individuals with no other means of support; these programs are often overly
278 restrictive and fail to consider the impact of disability-associated costs, including the

279 costs of high-tech mobility devices such as powered wheelchairs. For example, a \$20,000
280 powered wheelchair may be cost prohibitive for an individual with a personal income of
281 \$40,000 annually, despite being well above the income threshold for eligibility for many
282 social services programs. This is particularly true when other disability-related costs are
283 considered. As a result, individuals with high disability related costs, including those
284 associated with accessible housing and other medical needs, may not have access to
285 critical funding to access wheeled mobility equipment to promote mobility, health, and
286 well-being. In other areas, there is a cost-sharing system in place which has addressed
287 some of these issues. Alberta's Alberta Aids to Daily Living (AADL) program provides
288 75% funding for any individual (not income-based), with the wheelchair user covering
289 25%, up to a maximum of \$500 per family. One hundred per cent coverage is provided
290 for individuals who are eligible for an income-tested cost-share exemption. The ADP
291 program in Ontario is similar; however, 100% coverage is only available to those eligible
292 for the Ontario Disability Support Program (ODSP). While this scheme works for many,
293 there are still challenges for those who may not meet the strict criteria for the AADL
294 exemption (income greater than \$21,000 for an individual) or the ODSP program (e.g.,
295 older adults, post-secondary students), and are required to pay 25% of the cost of their
296 device.

297 Clinicians engaging in client-centred practice often consider the costs their clients
298 are able to bear and the funding available to them, as well as the capacity of the necessary
299 equipment and how these devices may work within their clients lives. Scooters are often
300 a less expensive alternative to powered wheelchairs but frequently are not covered by
301 provincial or territorial health plans. While scooters are more challenging with respect to

302 accessibility in the home, they may come with lower stigma and enhanced community
303 access. Clinicians may find this contributes to societal concerns with respect to safety.
304 Since scooters are often not covered, this could result in higher numbers of individuals
305 who acquire these devices without assessment by a regulated health professional. In
306 Ontario, where scooters are provided through the ADP program, an assessment is
307 required by an ADP prescriber, which increases the likelihood that issues of safety and
308 cognition are assessed prior to obtaining a device. This has been identified as a concern in
309 Australia, where powered wheelchair users are far less likely to have purchased their own
310 device than scooter users (Edwards & McCluskey, 2010). In fact, two thirds of scooter
311 users did not consult a health professional when purchasing their devices, which may lead
312 to higher accident and injury rates (Edwards & McCluskey, 2010). Legislation and
313 funding programs which encourage assessment through coverage of devices may help to
314 alleviate some of these concerns within the community. Additional funding programs and
315 access to regulated health professionals would also help alleviate the burden on clinicians
316 already working in this area and promote enhanced client-centred care.

317 Question 2 of the Disability Policy Lens speaks to the definition of disability,
318 weighing who is included and excluded from consideration, and which individuals are
319 responsible for making the decision as to who qualifies as disabled. There is a wide
320 variety in the definition of disability, ranging from a condition which persists a minimum
321 of three months, to other definitions which require longer-term use of the device at a
322 minimum of one to two years. Typically, individuals who require devices for shorter-term
323 use have access to community programs through organizations such as the Red Cross,
324 which operates the Health Equipment Loan Program (HELP) in most provinces and

325 territories or the Community Care Access Centre loan programs in Ontario. All of the
326 definitions largely fall within a biomedical model of disability and none address the
327 environmental issues that may necessitate the use of a mobility device. In fact, a number
328 of provinces have provisions that limit access to a device if the environment is not
329 suitable, without providing an alternative funding source to alter the environment.
330 Organizations like the Canada Mortgage and Housing Corporation can provide limited
331 funds for renovations, and there are a variety of non-profit entities which provide
332 charitable funds towards this aim. However, these are typically reserved for individuals
333 who own their homes, further limiting the potential of these programs to have impact. As
334 a result, those who rent their homes are not eligible for this funding and, therefore, are
335 required to obtain accessible housing, which is often at a premium, or advocate for
336 changes to current housing prior to obtaining a wheeled mobility equipment. This
337 advocacy role often falls to practitioners, including occupational therapists, which places
338 additional strain on limited health care funding. While advocacy is often considered part
339 of client-centred practice, the requirement to engage in lengthy periods of advocacy on
340 behalf of clients may take away time that could be allocated to other client-centred
341 activities that promote independence and occupational engagement in the community.

342 There is also substantial variation in which individuals are eligible to prescribe
343 wheeled mobility equipment. In many areas, a physician or nurse practitioner must be the
344 final authority on provision of this equipment. This is contrasted with jurisdictions where
345 occupational therapists and physical therapists are called upon to use discipline- specific
346 expertise to assess and recommend appropriate equipment. The inclusion of rehabilitation
347 professionals in the assessment and prescription process is ideal, because it allows for a

348 thorough client-centred assessment of all the relevant functional concerns, ranging from
349 the physical capacity to operate the device, to the cognitive and perceptual needs of the
350 user (Greer, Brasure, & Wilt, 2012; Mortenson et al., 2005). In addition, rehabilitation
351 clinicians are well placed to assess the environment where the device will be used and the
352 potential social and participation implications (Greer et al., 2012; Karmarkar et al., 2012).
353 However, there have been concerns raised about the use of these clinicians as gatekeepers
354 for funding programs, which may result in therapists being perceived as barriers to
355 obtaining devices and compromising the therapeutic relationship (Barbara & Curtin,
356 2008; Mortenson et al., 2015). There may also be a fundamental incompatibility between
357 established standards of client-centred practices, which require therapists to provide the
358 most appropriate service for the client, and prescribing guidelines, which a funding
359 agency may require the professional to follow (Barbara & Curtin 2008). Furthermore, the
360 disparity in access to devices across the country means that therapists working in
361 different jurisdictions are not able to adhere to the same standards of practice for
362 wheelchair provision, and does not support the development or application of national
363 standards of care. Ultimately, ensuring devices are provided through collaboration
364 between the client and appropriate health professional will benefit the client, who will
365 receive the device that best meets his or her needs, and the population at large, through
366 improved safety and accountability.

367 Finally, we would like to address the issue of residence. Although most provinces
368 and territories provide funding for all individuals regardless of place of residence, some
369 jurisdictions do not provide funding for wheeled mobility equipment for individuals
370 living in residential or long-term care. There is evidence to suggest that approximately

371 50% of all individuals living in long-term care require a mobility support device for daily
372 mobility (Shields, 2004). As a result, these funding policies impact a significant number
373 of individuals in these environments. Many of these jurisdictions have provided direction
374 to those ministries responsible for long-term care to provide these devices within the
375 confines of the long-term care environment. Unfortunately, this may not come with
376 additional funding, and many individuals do not have devices appropriate for their needs.
377 Clinicians working in residential care (where clients are unable to obtain coverage
378 through provincial programs) may find that they are required to adhere to additional
379 institutional policies, which limit their ability to provide the appropriate device to enable
380 independence. This has the potential to significantly impact the independence,
381 participation, quality of life, and well-being of these individuals.

382 **Limitations**

383 As this paper is primarily a report on legislation and program guidelines, we were
384 unable to address thoroughly the implications of the funding disparities on the key
385 stakeholders, particularly wheelchair and scooter users and clinicians that are responsible
386 for provision of wheeled mobility equipment. Further research could aim to explore the
387 implications of funding policies on these stakeholder groups.

388 While we made every attempt to complete a comprehensive review of all
389 available provincial and federal sources of funding for wheelchairs and scooters, recent
390 changes in legislation of program offerings in each of the jurisdictions may not be
391 reflected in this review. In addition, we were unable to explore the intersection of funding
392 programs where there may be overlap, as we focused solely on programs of last resort. In
393 some provinces, there may be programs not offered at the health system or ministry level

394 (e.g. community agencies) that provide access to these devices. Although we attempted to
395 address all programs where funding was allocated to the provision of wheelchairs and
396 scooters from government sources, it is possible we have overlooked small programs, or
397 those which are not formalized at the provincial or federal level. Finally, we were unable
398 to provide comparison to funding available in jurisdictions outside Canada. International
399 comparison of available funding for wheelchairs and scooters may provide additional
400 context that could be relevant to policy makers in Canada and should be considered as a
401 future research direction.

402 **Recommendations**

403 Based on our evaluation of the available funding programs, in the context of the
404 Disability Policy Lens, and with a view towards achieving the articles in the UNCRPD,
405 we are providing a set of benchmark recommendations to guide continued development
406 of wheeled mobility equipment funding policies in Canada. To meet the criteria set forth
407 in the UNCRPD, it is incumbent on federal and provincial lawmakers (particularly those
408 responsible for health and social services) to enact legislation which provides
409 comprehensive access to mobility devices for individuals with disabilities. Policy makers
410 that are developing or amending new or current policy to meet this Convention should
411 consider the following recommendations when establishing policy direction and funding
412 allocation. Clinicians who engage in wheelchair and scooter provision may use these
413 recommendations to advocate to national, local, and regional representatives on behalf of
414 their clients. Furthermore, clinicians may wish to cite current evidence on the benefits of
415 wheelchair and scooter use when advocating for funding for individual clients. Those
416 recommendations are as follows:

- 417 1) Eligibility: Wheeled mobility equipment funding should be provided to all
418 individuals who are covered by the provincial or territorial health insurance
419 program, regardless of age, residence, or health condition.
- 420 2) Funding: Full coverage should be provided for eligible devices based on assessed
421 need; including, but not limited to, manual wheelchairs (standard, lightweight,
422 and ultra-lightweight), powered wheelchairs, and scooters.
- 423 3) Basic or Essential Mobility: Wheeled mobility equipment should be provided to
424 individuals for access to the home and community to promote participation and
425 quality of life.
- 426 4) Repair and replacement: Policies for repair and replacement should be based on
427 the expected lifespan of the device, with provisions for individuals who have a
428 significant change in need.
- 429 5) Prescriber requirements: Prescription should include collaboration between the
430 client and a registered occupational or physical therapist with expertise in the
431 provision of wheeled mobility equipment. The assessment process should include
432 consideration of the physical, affective, and cognitive needs of the client, and
433 issues specific to the environment of use. Therapists should make
434 recommendations for the best possible device to meet the client needs and be kept
435 at arms-length, or as far as possible, from the funding decision process.

436 **Conclusion**

437 Funding policies differ substantially across Canada for wheelchairs, scooters, and related
438 equipment, resulting in unequal access to this important equipment dependent on the
439 province or territory where the individual lives. This disparity in access may lead to

440 reduced independence, well-being, and quality of life for individuals with mobility
441 limitations and does not meet the conditions set forth and ratified by Canada in the
442 UNCRPD. Policies should include provision of wheeled mobility equipment by
443 occupational or physical therapists for all individuals covered by the provincial or
444 territorial health insurance program and be provided through a client-centred process
445 which addresses multiple factors including physical needs, cognition, intended use, and
446 the environment.

447 **Key Messages**

- 448 • We reviewed policies related to funding for wheelchairs, scooters, and related
449 equipment in Canada and provided province-by-province comparisons that may be
450 used by occupational therapists or other clinicians to advocate for changes to funding
451 guidelines.
- 452 • Funding for wheelchairs, scooters, and related equipment ranges across jurisdictions
453 in Canada, resulting in unequal access to these critical devices.
- 454 • Many Canadians may not have access to appropriate wheelchairs, scooters, and
455 related equipment, which has implications for health and well-being of Canadians
456 with mobility limitations.

457 **References**

- 458 Barbara, A., & Curtin, M. (2008). Gatekeepers or advocates? Occupational therapists and
459 equipment funding schemes. *Australian Occupational Therapy Journal*, 55(1), 57–
460 60. <http://doi.org/10.1111/j.1440-1630.2007.00683>.
- 461 Brandt, Å., Iwarsson, S., & Ståhle, A. (2004). Older people's use of powered wheelchairs
462 for activity and participation. *Journal of Rehabilitation Medicine*, 36(2), 70–77.
463 <http://doi.org/10.1080/16501970310017432>
- 464 Edwards, K., & McCluskey, A. (2010). A survey of adult power wheelchair and scooter

465 users. *Disability and Rehabilitation: Assistive Technology*, 5(6), 411–419.
466 <http://doi.org/10.3109/17483101003793412>

467 Eggers, S. L., Myaskovsky, L., Burkitt, K. H., Tolerico, M., Switzer, G. E., Fine, M. J., &
468 Boninger, M. L. (2009). A preliminary model of wheelchair service delivery.
469 *Archives of Physical Medicine and Rehabilitation*, 90(6), 1030–1038.
470 <http://doi.org/10.1016/j.apmr.2008.12.007>

471 Giesbrecht, E. M., Miller, W. C., & Smith, E. M. (2014 October 30). *Levels of assistance*
472 *and unmet needs of Canadian wheelchair users*. Paper presented at Investing in our
473 Futures: National Conference of the Canadian Research Data Centre Network
474 (CRDCN). Winnipeg, Manitoba. Hamilton: Canadian Research Data Centre
475 Network.

476 Canada Health Act (1985, c. C-6). Retrieved from
477 <http://laws-lois.justice.gc.ca/eng/acts/c-6/FullText.html>

478 Greer, N., Brasure, M., & Wilt, T. (2012). Wheeled mobility (wheelchair) service
479 delivery: Scope of the evidence. *Annals of Internal Medicine*, 156(2), 141–146.
480 Retrieved from <http://annals.org/article.aspx?articleid=1033299>

481 Hubbard, S. L., Fitzgerald, S. G., Vogel, B., Reker, D. M., Cooper, R. A., & Boninger,
482 M. L. (2007). Distribution and cost of wheelchairs and scooters provided by
483 Veterans Health Administration. *Journal of Rehabilitation Research and*
484 *Development*, 44(4), 581–592. <http://doi.org/10.1682/JRRD.2006.10.0136>

485 Karmarkar, A. M., Dicianno, B. E., Graham, J. E., Cooper, R., Kelleher, A., & Cooper,
486 R. A. (2012). Factors associated with provision of wheelchairs in older adults.
487 *Assistive Technology*, 24(3), 155–167.
488 <http://doi.org/10.1080/10400435.2012.659795>

489 Lofqvist, C., Pettersson, C., Iwarsson, S., & Brandt, A. (2012). Mobility and mobility-
490 related participation outcomes of powered wheelchair and scooter interventions after
491 4-months and 1-year use. *Disability & Rehabilitation: Assistive Technology*, 7(3),
492 211–218. <http://doi.org/10.3109/17483107.2011.619244>

493 McColl, M. A., Roberts, L., Smith, E., & Miller, W. (2015). *Policy governing support for*
494 *mobility aids for people with disabilities in Canada*. Retrieved from
495 [www.disabilitypolicyalliance.ca/wp-content/uploads/2015/11/Mobility-Policy-Scan-](http://www.disabilitypolicyalliance.ca/wp-content/uploads/2015/11/Mobility-Policy-Scan-281015.docx)
496 [281015.docx](http://www.disabilitypolicyalliance.ca/wp-content/uploads/2015/11/Mobility-Policy-Scan-281015.docx)

497 Mortenson, W. Ben, & Miller, W. C. (2008). The wheelchair procurement process:
498 Perspectives of clients and prescribers. *Canadian Journal of Occupational Therapy*,
499 75(3), 167–175. <http://doi.org/10.1177/000841740807500308>

500 Mortenson, W. B., Hammell, K. W., Luts, A., Soles, C., & Miller, W. C. (2015). The
501 power of powered wheelchairs: Mobility choices of community-dwelling older
502 adults. *Scandinavian Journal of Occupational Therapy*, 22(5), 394–401.

503 Mortenson, W. B., Miller, W. C., Boily, J., Steele, B., Odell, L., Crawford, E. M., &
504 Desharnais, G. (2005). Perceptions of power mobility use and safety within
505 residential facilities. *Canadian Journal of Occupational Therapy*, 72(3), 142–152.
506 <http://doi.org/10.1177/000841740507200302>

507 Mortenson, W. B., Clarke, L. H., & Best, K. (2013). Prescribers' experiences with
508 powered mobility prescription among older adults. *American Journal of*
509 *Occupational Therapy*, 67(1), 100-107. <http://doi.org/10.5014/ajot.2013.006122>

510 Salminen, A.-L., Brandt, A., Samuelsson, K., Töytäri, O., & Malmivaara, A. (2009).
511 Mobility devices to promote activity and participation: A systematic review. *Journal*
512 *of Rehabilitation Medicine*, 41(9), 697–706. <http://doi.org/10.2340/16501977-0427>

513 Shields, M. (2004). Use of wheelchairs and other mobility support devices. *Health*
514 *Reports*, 15(3), 37–41.

515 Smith, E.M., Giesbrecht, E.M., Mortenson, W.B., Miller, W.C. (2016) The prevalence of
516 wheeled mobility device use among community dwelling Canadians. *Physical*
517 *Therapy Journal*. (Epub ahead of print). Retrieved from:
518 <http://ptjournal.apta.org/content/early/2016/02/03/ptj.20150574.long>

519 Smith, E. M., Miller, W. C., & Giesbrecht, E. M. (2014 October 30). *A Description of*
520 *Wheelchair Users in Canada*. Paper presented at Investing in our Futures: National
521 Conference of the Canadian Research Data Centre Network (CRDCN). Winnipeg,
522 Manitoba. Hamilton: Canadian Research Data Centre Network.

523 Statistics Canada. (2015). *Individuals by total income level, by province and territory*.
524 Retrieved from [http://www.statcan.gc.ca/tables-tableaux/sum-](http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil105a-eng.htm)
525 [som/101/cst01/famil105a-eng.htm](http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/famil105a-eng.htm)

526 United Nations. (2006). Convention on the rights of persons with disabilities. *Treaty*
527 *Series*, 2515, 3. Retrieved from <http://www.un.org/disabilities/>

528 White, E., & Lemmer, B. (1998). Effectiveness in wheelchair service provision. *British*
529 *Journal of Occupational Therapy*, 61(7), 301–305.

530 World Health Organization. (2012). *Wheelchair Service Delivery Package: Basic Level*.
531 Retrieved from
532 [http://apps.who.int/iris/bitstream/10665/78236/1/9789241503471_reference_manual](http://apps.who.int/iris/bitstream/10665/78236/1/9789241503471_reference_manual_eng.pdf?ua=1)
533 [_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/78236/1/9789241503471_reference_manual_eng.pdf?ua=1)

