

# Policy Recommendations to Promote Physical Activity Among Persons with Mobility Impairments in Ontario

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## 1. Introduction

People with mobility impairments would benefit from increased physical activity.<sup>1</sup> However, they face many barriers that make it difficult for them to engage in physical activity. While people with mobility impairments face some of the same barriers as people without said impairments, such as lack of motivation or feeling tired,<sup>2</sup> they also experience other, more challenging barriers, which hinder their becoming physically active. For the purpose of this article, mobility impairment refers to someone who requires, at least, the occasional use of a mobility aid, such as a cane, wheelchair, or walker, in order to help him or her perform daily activities. Although there are different kinds of barriers that mobility impaired people face on the road to becoming physically active, the ones that could be lessened with changes in policy are the physical and social barriers. These challenges include the high cost of fitness facilities, the lack of fitness professionals' awareness regarding catering to disabilities, and the lack of

accessible gym equipment.<sup>3</sup> The policy recommendations outlined in this article include subsidizing physical activity fees for people with mobility impairment, making an educational module for fitness professionals to learn about working with persons with disabilities, and improving the accessibility of physical activity centers.

## 2. Background

People with mobility impairments face a number of barriers on the road to becoming physically active. There are multiple considerations that must be taken into account before these barriers can be addressed. The first consideration is the likelihood that people with mobility impairment will be physically inactive. The second issue is whether it is a basic human right that people with disabilities should have access to resources that allow them to participate in physical activity.

Approximately 13.7% of the Canadian population lives with a disability, and approximately 7.2% of that population has a physical disability affecting mobility.<sup>4</sup> The percentage of Ontario's population living with any type of disability is 15.4%, which is

<sup>1</sup> Angela Crawford et al. "People with Mobility Impairments: Physical Activity and Quality of Participation." *Disability and Health Journal*, 2008, 12.

<sup>2</sup> R E Cowan, M S Nash, and K D Anderson. "Exercise participation barrier prevalence and association with exercise participation status in individuals with spinal cord injury." *Spinal Cord* 51 (2013): 30.

<sup>3</sup> William M Scelza et al. "Perceived barriers to exercise in people with spinal cord injury." *American Journal of Physical Medicine & Rehabilitation* 84, no. 8 (2005): 578.

<sup>4</sup> "Canadians in Context - People with Disabilities." Government of Canada - Employment and Social Development Canada. Accessed March 21, 2015.

slightly above the national average.<sup>5</sup> When looking at physical disabilities affecting mobility- pain, agility, and mobility- the percentages are almost the same between all of Canada (~66.3%) and Ontario (~66.9%).<sup>6</sup> This indicates that of all the people living with a disability in both Canada and Ontario, over half are mobility impairments, and Ontario is slightly above the national average. Because of this, it is necessary for Ontario to ensure that people with mobility impairments rights to engage in physical activity are being met, not simply for recreational purposes, but for health reasons as well.

It is crucial that mobility impaired Ontarians are provided with the same opportunities as able-bodied individuals, because it is a human right. The United Nations Convention on the Rights of People with Disabilities (UNCRPD) (2006) states that we must enable "persons with disabilities to participate on an equal basis with others in recreational, leisure and sporting activities".<sup>7</sup> It is the right of people with mobility impairments to have accessible fitness facilities. Since the UNCRPD has been ratified in

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<sup>5</sup> Ibid.

<sup>6</sup> City of Hamilton. "A Profile of Persons with Disabilities Facts and Figures." The City of Hamilton. 2005. Accessed May 20, 2015. <https://www.hamilton.ca/NR/rdonlyres/B6B47AEC-2CFF-4EC9-930B-F0A55A63C1A1/16318/Profileofpersonswithdisabilitiesfacts.pdf>.

<sup>7</sup> "Article 30 - Participation in Cultural Life, Recreation, Leisure and Sport." Paragraph 5. Convention on the Rights of Persons with Disabilities. 2006. Accessed March 22, 2015.

Canada, it is necessary to ensure that these rights are followed through.

The International Classification of Functioning (ICF) is an international measure for disability.<sup>8</sup> The ICF classifies information into three sections: Functioning, Disability, and Contextual factors,<sup>9</sup> which measure the social and environmental factors that affect individuals with disabilities, as well as their physical limitations. The lack of accessibility in physical activity centers affects certain areas of the ICF, in particular the sections on recreation and leisure, activity limitations, and participation restriction. Physical activity is known to improve one's range of motion, flexibility, and strength,<sup>10</sup> which will improve mobility-impaired person's participation in everyday activities. Facilities that are inaccessible for people with mobility impairments limit their ability to perform daily activities, without the aid of an able-bodied individual.

### 2a. Barriers

Physical and social barriers are commonly associated with mobility-impaired people's participation in physical activity. This section of the paper will examine the physical and social barriers individuals with disabilities face. In this section, I argue that the policy suggestions outlined

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<sup>8</sup> World Health Organization. "The international classification of functioning." 2002.

<sup>9</sup> Gubela Mji. "International Classification of Functioning, Disability & Health." (2001).

<sup>10</sup> Miriam E. Nelson et al. "Physical activity and public health in older adults: recommendation from the American college of sports medicine and the American health association." *Medicine & Science in Sports & Exercise* 39, no. 8 (2007): 1095.

above will lessen the barriers surrounding physical activity and will allow more individuals to participate in fitness activities.

Joining a fitness facility is very costly, which has been identified as a barrier for people with mobility impairments. Persons with disabilities already face many expenses with regards to treatment and rehabilitation,<sup>11</sup> and the added expense of a gym membership may negatively affect their budget. A study by Cowan and colleagues demonstrated that there was a relationship between income and exercise status, with more non-exercisers reporting low income.<sup>12</sup> Considering that employment rates for people with disabilities is already lower than that of the general population,<sup>13</sup> people with a mobility impairment understandably identify the cost of a gym membership as a barrier to physical activity, as it is a costly addition to their already expensive health care budget.

Secondly, while there are some fitness professionals who specialize in training people with disabilities, most fitness professionals currently lack training regarding the needs of people with mobility impairments.<sup>14</sup> All fitness

professionals need to have some form of training or education, in order to help individuals with mobility impairments achieve their fitness and health goals. Ensuring that all fitness coaches have some basic knowledge for working with individuals with mobility impairments will also improve their accessibility to physical activity.

Finally, the accessibility of fitness areas can be a barrier for people who use a mobility aid. In a recent survey of fitness and recreational facilities, most equipment areas were not accessible for persons with disabilities, especially those using mobility devices.<sup>15</sup> If the areas surrounding fitness equipment are not accessible, then it is not possible for a person using a mobility device to exercise, as they require the use of their mobility device in approaching, transferring, and exiting the equipment. It is important to create an inclusive fitness area by planning the organization of equipment with people using mobility devices in mind.

### 3. Discussion

#### 3a. Cost

The cost associated with physical activity limits the participation in physical activity for people with impaired physical mobility. People with disabilities tend to have a lower income than the general population. A recent study by Krause and Carter found that

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<sup>11</sup> Spinal Cord Injury Ontario. *Frequently asked questions- about spinal cord injury*. <http://www.sciontario.org/faq/sci-primer#t258n1059> (accessed 06 23, 2013).

<sup>12</sup> R.E. Cowan, M. S. Nash, and K. D. Anderson, "Exercise participation barrier prevalence," 28.

<sup>13</sup> Spinal Cord Injury Ontario. *Frequently asked questions- about spinal cord injury*.

<sup>14</sup> Hilda F. Mulligan et al. "Barriers to physical activity for people with long-term neurological conditions: a review study."

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*Adapted Physical Activity Quarterly* 29 (2012): 244.

<sup>15</sup> James H. Rimmer et al. "Accessibility of health clubs for people with mobility disabilities and visual impairments." *American Journal of Public Health* 95, no. 11 (2005): 2024-2025.

only four percent of people with spinal cord injuries earned over \$75,000 annually.<sup>16</sup> Further, a 2006 Canadian Participation and Activity Limitation Survey (PALS) found that approximately fifteen percent of mobility impaired people live in poverty.<sup>17</sup> Since many people with mobility disabilities are reporting lower annual income, something must be done to support their right to exercise.

The policy this paper is recommending is based on the city of Toronto's "Welcome Policy," which subsidizes programming for high-needs individuals.<sup>18</sup> The welcome policy was started in order to remove financial barriers to leisure and recreation programming.<sup>19</sup> The policy has achieved relative success with almost 108,000 residents in the city of Toronto approved for the subsidy.<sup>20</sup> The budget has also grown exponentially as the city of Toronto has seen the benefits of physical activity and recreation for all. Cowen

demonstrated that the policy has many benefits, such as increasing self-esteem, and promoting ethnic and cultural harmony.<sup>21</sup> These benefits add to the many accepted health benefits related to being physically active. Given the results of Toronto's "Welcome Policy," it is reasonable to suggest that a similar policy would have the same or similar effects for people with impaired physical mobility.

Toronto's "Welcome Policy" focuses on equalizing recreational opportunities for people with mobility impairments, regardless of an individual's financial status. Since other municipalities in Ontario also provide subsidies for recreational programs, it may be beneficial for the provincial government to consider a provincial wide policy in order to encourage all municipalities to provide subsidies. Making this a provincial wide policy could also further the work of the Accessibility for Ontarians with Disability Act (AODA) in trying to make Ontario more accessible.

My policy recommendation is for the government to subsidize the cost of fitness memberships for people with mobility impairments, in order to increase participation. Both people with mobility impairments and the government of Ontario would benefit from this subsidy. Although the recommendation to subsidize physical activity may seem costly, there are many benefits to being physically

<sup>16</sup> James S. Krause and Rickey E. Carter. "Risk of mortality after spinal cord injury: relationship with social support, education, and income." *Spinal Cord* 47, no. 8 (2009): 593.

<sup>17</sup> Council of Canadians with Disabilities. *As a matter of fact: poverty and disability in Canada*. 2013.

<http://www.ccdonline.ca/en/socialpolicy/poverty-citizenship/demographic-profile/poverty-disability-canada> (accessed 06 27, 2013).

<sup>18</sup> City of Toronto. "Welcome policy." *City of Toronto: Parks, Forestry & Recreation*. [http://www.toronto.ca/parks/torontofun/welcome\\_policy.htm](http://www.toronto.ca/parks/torontofun/welcome_policy.htm) (accessed 06 27, 2013).

<sup>19</sup> Ibid.

<sup>20</sup> Elizabeth Church. "Cash-strapped Welcome Policy Should Get Dollar Caps: Report." *Globe and Mail*, June 28, 2011. Accessed June 3, 2012.

<sup>21</sup> Deborah Cowen. "Suburban citizenship? The rise of targeting and the eclipse of social right in Toronto." *Social & Cultural Geograph* 6, no. 3 (2005): 348.

active that would be advantageous to the government. It is well known that physical activity has many benefits to one's health.<sup>22</sup> Because of this, the healthcare sector would benefit from the betterment of the health of people with mobility impairments since they would potentially have fewer visits to the hospital, which would put less pressure on an already strained healthcare system.<sup>23</sup> Furthermore, for mobility-impaired people, physical activity has the added value of increasing their range of motion, flexibility, and strength, thereby giving them more independence.<sup>24</sup> Therefore, the government should look at this policy as a small investment that will lead to long-term savings.

### 3b. Education

Another barrier to physical activity for people with mobility impairments is that fitness professionals often lack knowledge about their specific needs in relation to physical activity. Under the Canadian Fitness Education Services, there are currently no courses offered that discuss physical activity for people with mobility impairments.<sup>25</sup> This gap in

fitness professionals' education may dissuade people with disabilities from attending fitness centers and becoming physically active. Furthermore, even when people with mobility impairments go to recreational facilities, chances are they will not have any personal trainer to attend to their needs.

I recommend the implementation of a policy that requires all fitness certifications to include a module focusing on physical activities for people with disabilities, particularly mobility impairments. More specifically, the goal would be to educate professionals on how to modify exercises to cater to a limited range of motions. Learning exercises that could help improve the mobility of impaired joints and contraindicated movement patterns for different mobility impairments would be beneficial because this would improve fitness professionals' knowledge about physical activity for people with physical disabilities.

For this policy to be effective, this new module would have to be mandatory for gaining certification as a personal trainer. For a currently certified fitness professional, there should be an online module for them to complete the next time they have to recertify their credentials. Having this mandatory module would ensure that all fitness professionals possess a basic knowledge that allows them to cater to people with mobility impairments. This in turn should increase their confidence in dealing with clients that come to their facilities

<sup>22</sup> Darren ER Warburton, Crystal Whitney Nicol, and Shannon SD Bredin. "Health benefits of physical activity: the evidence." *Canadian medical association journal* 174, no. 6 (2006): 807.

<sup>23</sup> John K. Iglehart. "Revisiting the Canadian health care system." *New England Journal of Medicine* 342, no. 26 (2000): 2010.

<sup>24</sup> Miriam E. Nelson, "Physical activity and public health," 1100.

<sup>25</sup> Canadian Fitness Education Services. *Personal trainer certification*. 2012. <http://www.canadianfitness.net/certification/personal-trainer-certification.html> (accessed 06 27, 2013).

with physical disabilities. Both people with mobility impairments and fitness staff will positively benefit from this education, as both parties will feel more comfortable both going to a fitness facility and working with clients with mobility impairments.

Educating professionals will increase the inclusiveness of physical activity centers as the staff will be increasingly aware of the best ways to include people with disabilities into their programming. A study conducted by the United Nations Educational, Scientific and Cultural Organization (UNESCO) found that the education of schoolteachers on disabilities was an important step to becoming an inclusive school for people with disabilities, where both able-bodied students and students with disabilities are taught in the same classroom.<sup>26</sup> Although the aforementioned modules would not deal with inclusion in a classroom setting, the concept of education for inclusion is one that can be reasonably assumed to be applicable to physical activity facilities. For people with a mobility impairment, knowing that there is a policy in place to ensure that fitness professionals are informed regarding appropriate physical exercises for their disability will help increase their confidence and comfort when attending a fitness facility.

### **3c. Accessibility of Equipment Areas**

In the Accessibility for Ontarians with Disabilities Act (AODA) (2005),

<sup>26</sup> United Nations Educational, Scientific and Cultural Organization. "Towards inclusive education for children with disabilities: A guideline." *UNESCO Bangkok*. (2009): 15.

there is no language regarding the accessibility of physical activity centers, or the importance of physical activity.<sup>27</sup> It also mentions nothing about recreation or leisure. However, the United Nations has identified that everyone has a right to rest and leisure.<sup>28</sup> The UNCRPD furthers this statement by claiming that people with disabilities should be able to "participate on an equal basis with others in recreational, leisure and sporting activities".<sup>29</sup> The AODA should be updated to include recreation, leisure, as well as including accessibility standards for physical activity. Adding this language to the AODA will allow physically disabled Ontarians to receive the same rights as their able-bodied counterparts, in terms of physical activity and recreation.

The implemented policy would be similar to the Americans with Disabilities Act (ADA), with the adopted 2010 Standards for Accessible Design provisions to the 1990 ADA.<sup>30</sup> These standards include dimensions of clear space that need to be kept around one of each type of equipment. The ADA standards state that there must be

<sup>27</sup> "Accessibility for Ontarians with Disabilities Act, 2005, S.O. 2005, C. 11." Government of Ontario - E-Laws. January 1, 2009. Accessed March 22, 2015.

<sup>28</sup> "Article 24." The Universal Declaration of Human Rights, UDHR, Declaration of Human Rights, Human Rights Declaration, Human Rights Charter, The UN and Human Rights. Accessed March 22, 2015.

<sup>29</sup> "Article 30 - Participation in Cultural Life, Recreation, Leisure and Sport."

<sup>30</sup> Americans with Disabilities Act Center. "Building an accessible future: recreation facilities-exercise equipment." 2012.

clear floor space around the area of the equipment.<sup>31</sup> These measures are with mobility impairments have the space needed to place their mobility devices around the equipment, and then transfer onto the equipment. The ADA also calls for accessible routes to the exercise equipment so that a person with impaired physical mobility can have full access to all of the equipment.<sup>32</sup>

Critics of the ADA have raised concerns that many facilities will not be able to accommodate these standard changes due to size constraints.<sup>33</sup> However, since the policy only requires one set of each type of equipment to be accessible and the clear spaces may overlap between two machines, this concern is easily remedied by the proper formatting of gym space to ensure that the space is being used well, while still conforming to the ADA standards. The standard changes are still relatively new and therefore success rates are not yet known, but all gyms in the United States are now required to meet these standards as of March 2012.<sup>34</sup>

This policy recommendation allows people with mobility

impairments the opportunity to access any physical activity center of their choice. The policy will require all fitness centers to ensure at least one of each exercise machine is completely accessible. Fitness centers are also encouraged, within the ADA standards, to have as much accessible equipment as they can to promote an inclusive and inviting environment for people with disabilities. Adopting a similar policy within the AODA would allow Ontario's recreational facilities to become more accessible, and it would encourage individuals with mobility impairments to become physically active.

#### 4. Conclusion

Physical activity is an important part of any person's life since it decreases the risk of health concerns,<sup>35</sup> amongst other reasons. Therefore, regular physical activity can potentially lessen the strain on our healthcare system, and considering Ontario's aging population, more and more people will require mobility devices.<sup>36</sup> This article outlined three policies – cost subsidization, educating fitness staff, and making equipment areas accessible – that will aid in making fitness centers more accessible and inclusive for people with mobility

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<sup>31</sup> Ibid

<sup>32</sup> Ibid

<sup>33</sup> "236 and 1004 Exercise Machines and Equipment." Appendix B to Part 36 Analysis and Commentary on the 2010 ADA Standards for Accessible Design. July 28, 2010. Accessed March 22, 2015.

<sup>34</sup> U.S. Department of Justice. "ADA 2010 Revised Requirements: Effective Date and Compliance Date." ADA 2010 Revised Requirements: Effective Date and Compliance Date. February 1, 2011. Accessed May 15, 2015.

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<sup>35</sup> Ralph S. Paffenbarger Jr, Robert Hyde, Alvin L. Wing, and Chung-Cheng Hsieh. "Physical activity, all-cause mortality, and longevity of college alumni." *New England journal of medicine* 314, no. 10 (1986): 605.

<sup>36</sup> Jack M. Guralnik, Linda P. Fried, and Marcel E. Salive. "Disability as a public health outcome in the aging population." *Annual review of public health* 17, no. 1 (1996): 30.

impairments. If each of the policies outlined above were followed, an increased number of people with mobility impairments in Ontario would have the opportunity to become physically active, if they so choose.



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