



# Medical Equipment Lending Society

West Central Alberta



# **Final Report**

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## **Table of Contents**

Title Page	1
Table of Contents	2
Executive Summary	3
Synopsis of the MEL Society Environmental Scan	4
Synopsis of the Literature Review conducted for MEL Society	12
Synopsis of the MEL Society Community Survey Results	19
The MEL Society Serving Demographics	23
Health System Analysis	27
Government Systems Analysis	31
WHO and PAHO Initiatives	35
Discussion	40
Recommendations	43
Closing	46
References.	47

## **Executive Summary**

The purpose of the final report is to synthesize all information that was gained through the research practicum project. The final report provides a synopsis of the environmental scan, literature review, statistical results from the community survey, and analyzes the current health and government systems within Alberta. Environmental scans are conducted so an organization can understand both the internal and external landscapes that affect organizational operations. An in-depth analysis of the Medical Equipment Lending (MEL) Society's internal structure was completed, which includes the MEL Society's values, vision, mission, objective, organizational structure and culture, human resources, technology, and a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. An in-depth analysis of the micro external environment includes local and client demographics, competitors, funded programs for equipment purchases, suppliers and vendors, stakeholders and funders, and funding options. The analysis also included the macro external environment which includes Alberta's economic and political landscape, legal considerations, technological advances, global initiatives, Alberta and Canada's demographics, and Alberta's socio-cultural context.

The literature review was conducted to understand how medical equipment lending impacts public health outcomes, and to discover what peer-reviewed literature is available to understand the public health problem of accessing timely and affordable equipment. The literature review synthesized themes and discussed the implications of the themes. The community survey was conducted to better understand how residents in Clearwater County value the service offered by the MEL Society, and how much they support government funding and aging in place initiatives. Descriptive and inferential statistics were generated from the survey results and the synopsis are presented in this final report. The MEL Society serving demographics is also discussed. The health and government systems have an impact on the MEL Society operations which is discussed. The World Health Organization (WHO) and Pan American Health Organization (PAHO) has global strategies and initiatives in place that promote greater health equity, which needs to be taken into account, as Canada frequently partners with the WHO and PAHO to achieve greater overall health outcomes. Recommendations were generated, from all research conducted for the MEL Society, and provided at the end of this final report.

## Synopsis of the MEL Society Environmental Scan

The MEL Society of West Central Alberta is a non-profit organization that lends medical equipment, for nominal fees, to residents of West Central Alberta and beyond<sup>1,2</sup>. The MEL Society operates on the generous donations of oil companies, local businesses, and residents, and does not receive annual provincial government funding<sup>1,2</sup>. Non-profit lending organizations in Edmonton, Red Deer and Calgary receive annual provincial funding which allows them to lend equipment at no charge, with renters given the option to provide a donation for equipment lent to them<sup>3-6</sup>. Urban lending organizations also receive funding from sources like the MEL Society, but since they procure annual provincial funding, these organizations face less risk of having to close their doors due to lack of funding. Rural organizations, like the MEL Society, must continually search out funding opportunities to remain viable. Rural lending organizations are extremely important to ensure health equity for rural Albertans.

Individuals who may require equipment have the option to await an Occupational Therapist (OT) assessment and apply for government subsidized equipment through the Alberta Aids to Daily Living (AADL) program<sup>6.7</sup>. AADL is a comprehensive program, however, it has extensive wait times for larger equipment items, particularly wheelchairs. During wait periods, individuals must seek out temporary loan equipment from other sources: urban government funded lending organizations (Red Cross HELP program, and the Lending Cupboard), the few non-government funded rural non-profits where some charge rental fees to offset costs, or from urban vendors who charge higher rental rates as they are for-profit businesses. Procurement of rental equipment can become problematic, especially for rural residents, if there is no lending organization near rural residents, meaning they must travel to urban centers, which creates access barriers for these individuals and their families.

The MEL Society has been open since 2016 and currently operates with 6 volunteer Board of Director members, a paid Executive Director and Volunteer Resources Coordinator, and 12 committed volunteers that are responsible for the cleaning and maintenance of equipment, as well as front end duties<sup>1,2</sup>. The MEL Society has stringent cleaning protocols that have allowed them to remain open during the COVID-19 pandemic<sup>1,2</sup>. The MEL Society also has clear and concise policies and procedures which are impressive considering the small size of the

organization<sup>9</sup>. The MEL Society works diligently at accommodating the needs of its volunteers to ensure they can maintain a healthy pool of volunteers that enjoy participating in occupational activities associated with operationalization of the MEL Society<sup>9,10</sup>. The volunteers maintain an extensive equipment loan pool with the MEL Society supporting global initiatives by gathering unused and surplus equipment and shipping it overseas to developing countries<sup>1,9,10</sup>. The MEL Society receives a lot of support locally, either in monetary funds, equipment donations, and for upgrades to their service bay by local contractors. Donated facility maintenance allows the volunteers to work in safer and more comfortable environments. All the assistance and donations allow the MEL Society to maintain strong operations, while supporting a large catchment area in Clearwater County and beyond.

A SWOT analysis was completed and included in the MEL Society's 2019 Strategic Business Plan. Strengths were identified as serving a large geographic area, having community support, increasing community awareness of their service, creating volunteer positions for community members, sending surplus equipment to developing countries, and fee relief on a case-by-case basis<sup>1</sup>. Weaknesses were identified as low marketing investment in semi-urban towns that they service (Olds and Sundre), a lack of an annual fundraiser, heavy reliance on outside income sources, Rocky Mountain House is expensive to operate out of and smaller serving communities are spread out, not enough attention paid to social media profiles, and unadvertised fee relief means individuals in need may not know fee relief is available<sup>1</sup>. Opportunities were identified as increasing marketing in semi-urban towns that they service, development and implementation of an annual fundraiser, utilizing public avenues and events to educate and raise awareness of the Society, exploration of alternative avenues of income that is not donation/grant/sponsor based, support interagency collaboration with other non-profit lending initiatives across the province, work towards ownership of their own facility, increase social media presence, educate health professionals on service provided by the Society, and introduce blogging on website and/or newspaper editorials that promote program education<sup>1</sup>. Threats were identified as implementation of a service fee which can be viewed negatively, they are one of the first non-profits that lend medical equipment that charges nominal rental fees, fee relief is unadvertised but still available case-by-case, fee implementation can discourage corporate and individual donations as community optics may show they are operating for-profit,

a lack of volunteer education and training on equipment use, and lack of health referral to access equipment could potentially increase risks or liabilities<sup>1</sup>.

Further to the SWOT analysis, the three-year strategic plan includes effective marketing strategies in Sundre and Olds to increase clients from these catchment areas, generation of at least 30% of the operating budget through self-generated means, and drafting of plans for construction/purchase of owned facility/ies to reduce operational costs, with the idea of having rental spaces to generate more income<sup>1</sup>. An unstated goal for the MEL Society is expansion of services into underserved rural areas in Alberta<sup>1</sup>. The environmental scan highlighted many rural areas in Alberta that are in dire need of access to a local non-profit lending organization, like the MEL Society. Researching lending competitors available across the province provided clarity of served and underserved areas. The areas that are serviced the most are the larger cities in Alberta, and include Grande Prairie, Fort McMurray, Edmonton, Red Deer, Calgary, Medicine Hat, and Lethbridge<sup>3</sup>. Each of these cities have a Red Cross Health Equipment Loan Program (HELP), which is supported by annual funding from the Government of Alberta, and various other sources<sup>3</sup>. Accessing HELP requires a health professional referral, which can create lag times between identifying a need, accessing a health professional assessment, traveling to the closest HELP depot, and possibly waiting to acquire needed equipment should the HELP depot not have it in stock<sup>3</sup>. Donations are accepted when acquiring loan equipment but not necessary<sup>3</sup>.

Aside from the MEL Society, and HELP, there are three other non-profits in Alberta offering loan equipment, The Lending Cupboard in Red Deer, AJ's Loan Cupboard in Medicine Hat, and Medi-Lend in Wetaskiwin<sup>4-6</sup>. Currently, Red Deer and Medicine Hat have the luxury of offering duplicate services. The Lending Cupboard in Red Deer receives annual funding from the Government of Alberta<sup>4</sup>, as well as from various other sources, much like HELP which has depots in both Red Deer and Medicine Hat. AJ's Loan Cupboard is not government funded<sup>5</sup>, and much like the MEL Society and Medi-Lend in Wetaskiwin, must work extremely hard at grant writing to acquire funds and grants to remain operational. All non-profit lending services, except for HELP, do not require health professional referrals to access the services. The Lending Cupboard has a higher expectation of client donations at the time of renting equipment. AJ's Loan Cupboard and Medi-Lend will accept donations but it is not expected<sup>5,6</sup>. The MEL Society implemented nominal fees to offset operating costs and to ensure they can remain sustainable

and viable in an unstable economic landscape. The introduction of fees has been met with some resistance locally, however, most people, once educated on the reason to fee implementation, fully accept the reasoning behind it. One more competitor to mention is Alberta Health Services (AHS), and there are various offices around the province that offer short-term equipment loans from their home care program<sup>11</sup>. The AHS home care program has been actively shutting down its equipment loans over the past 5 years due to budgetary constraints, and the risk of liability that AHS wants to mitigate.

Aside from sporadic AHS home care equipment loan pools, the urban non-profits, and The MEL Society, which is the only rural non-profit lender in Alberta, there are programs that Albertans can access when seeking rentals or to purchase equipment. Easter Seals Alberta, and The ALS (amyotrophic lateral sclerosis) Society of Alberta both offer short- and long-term equipment loans, along with providing funding for individuals meeting a certain criterion to purchase equipment <sup>12,13</sup>. Easter Seals Alberta will provide long-term loan equipment should it be urgent, but it depends on availability, and requires a health professional prescription and description of assessed needs<sup>12</sup>. Easter Seals Alberta will also provide funding to purchase equipment, however if they fund 51% or more then they retain ownership of the equipment<sup>12</sup>. Easter Seals is typically used for funding for children with disabilities, once all other funding avenues have been exhausted, there are stringent approval guidelines, and can have extensive wait times for approval<sup>12</sup>. Easter Seals will, on occasion, provide funding for adults with disabilities or medical conditions<sup>12</sup>. The ALS Society of Alberta will provide short- and longterm equipment loans for individuals who suffer from  $ALS^{13}$ . A health professional prescription is required, and there is a large loan pool to accommodate immediate equipment needs due to the rapid physical declines that accompany an ALS diagnosis<sup>13</sup>.

Other places that individuals can rent equipment from are equipment vendors. Most vendors offer rentals; however, vendors are for-profit organizations and rental costs are quite high to ensure they can generate income from their rental programs<sup>14-27</sup>. Vendor rental costs can be financially out of reach for many Albertans who struggle with lower socio-economic status. Vendors are typically located in urban areas, with many larger organizations operating out of Grande Prairie, Fort McMurray, Edmonton, Red Deer, Calgary, Lethbridge, and Medicine Hat, which are where HELP depots are also located<sup>3,14-27</sup>. Most pharmacies also carry small

equipment items available for sale<sup>21,23,25-27</sup>. Purchasing equipment out-of-pocket is costly, as is renting from vendors who typically charge deposits and delivery fees<sup>14-27</sup>. The Government of Alberta's AADL program is designed to cost-share equipment purchases for Albertans that require equipment long-term<sup>7,8</sup>. AADL requires a clinical assessment from an AADL authorized health professional<sup>7,8</sup>. Albertans whose income is above the poverty line cost-share with AADL at a rate of 25% of the total cost of the equipment purchase up to \$500/year<sup>7,8</sup>. Individuals at, or below the poverty line can apply for cost-share exemption, meaning AADL funds 100% of the equipment purchase<sup>7,8</sup>. AADL retains ownership of wheelchairs and there can be extensive wait times associated with acquiring an AADL wheelchair, with some individuals waiting up to a year to receive them<sup>7,8</sup>. During the wait time, individuals are forced to rent a temporary wheelchair, which depending on where they can access the wheelchair rental, can be extremely costly.

For individuals who do not meet AADL funding criteria, there are a few other funding options for individuals who require equipment purchases. Indigenous Services Canada will provide funding to First Nations, Indigenous, and Inuit populations, and will also offer short-term equipment rentals through the Non-Insured Health Benefit (NIHB) program<sup>28</sup>. Individuals accessing NIHB rentals or funding must be registered under the Indian Act<sup>28</sup>. Veteran's Benefits will fund equipment for individuals who sustained injuries during duty and require equipment to support their independence in their home and is accessed through a caseworker<sup>29</sup>. Worker's Compensation Board (WCB) provides funding for equipment for individuals injured on the job and require equipment to support their recovery or long-term compensable occupational illness or injury<sup>30</sup>. Lastly, private insurance companies can provide funding for equipment, but the funding parameters will vary by insurance company, and by plan level. If an individual has private insurance, was injured on the job, is a veteran who was injured while on duty, or registered under the Indian Act, or who does not require equipment long-term, are not eligible to access AADL funding<sup>7,8</sup>.

Since vendors and non-profit equipment lenders are located in urban environments, and have wait times associated with long-term equipment needs that are funded through AADL or other avenues, expansion of the MEL Society would meet a current and growing need for rural Albertans. Rural Albertans are typically older than urban cohorts, and thus face more need for equipment, while facing more barriers to access equipment<sup>31</sup>. Possible locations for expansion,

which would also provide more equitable equipment access across the province, would be Hinton/Edson area, Peace River, Bonnyville/Cold Lake area, Wainwright, and Drumheller area. By strategic expansion into these areas, most rural residents in Alberta would then not have to travel more than an hour to access rental equipment, except for those living in the most northern regions of the province. Northern residents would have existing access points in Fort McMurray and Grande Prairie, with the potential option of Peace River which is further north than Grande Prairie and would be able to serve the remote catchment areas without forcing northern remote residents to travel up to 8 hours to access equipment in Grande Prairie, or Fort McMurray.

Service expansion for the MEL Society would require further engagement with stakeholders and funders. The MEL Society is heavily supported by local businesses and oil companies<sup>1,2</sup>, with oil revenues drying up due to the global push for green energy initiatives, reliance on oil company donations can become fickle as we move forward. Local business is also heavily supported by oil companies, and Rocky Mountain House is known for being part of oil country. As local business revenues fall due to less available oil field work, they will also struggle to support non-profits like the MEL Society to the degree that we have seen in the past. Innovative funding strategies must be implemented to ensure the MEL Society can remain operational. Advocating for annual provincial government funding, much like the support given to both the HELP and Lending Cupboard initiatives will ensure the MEL Society can remain open and will promote health equity for rural Albertans. The MEL Society does receive funding through the Alberta Lottery Fund, which is a government funded program that allocates monies for non-profit and volunteer organizations<sup>1,2</sup>. Procurement of funding through the Alberta Lottery Fund requires annual grant writing with the knowledge that it may not be successful, which would force the MEL Society into dire financial straits. During these uncertain economic times, coupled with the COVID-19 pandemic, means there is less monies available all around for non-profits, and to meet provincial guidelines of restricting non-essential travel, annual government funding is essential to ensure rural Albertans can adhere to restricted travel by ensuring they have timely access to affordable equipment when the need arises.

Stakeholders for the MEL Society would include Alberta Health, along with the Government of Alberta. Alberta Health is responsible for policy creation, legislation, and setting standards for AHS and health systems within Alberta, where the MEL Society would fall into<sup>32</sup>.

The MEL Society has ensured they are working within legislated and policy guidelines related to infection control that is set by Alberta Health and monitored by AHS. Service groups around Rocky Mountain House are also listed stakeholders as many provide donations and conduct fundraisers for the MEL Society to purchase needed equipment. Alternate funding options, and potential stakeholders include banks, credit unions, utility companies, tire companies, and oil companies. To be successful garnering funding from alternate streams requires excellent grant writing skills, as well as a passion to search out alternate funding sources for which many exist but there is no master list available delineating who will provide what sort of funding. With the struggling oil and gas economy in Alberta, there are less government revenue streams to draw from, meaning the United Conservative Party (UCP) will be stuck trying to do more with less. Conservative governments are known for sound, and tight fiscal management, however the UCP has an uphill battle due to the downturns in oil prices and the COVID-19 pandemic wreaking havoc on Alberta's economy and budget. Innovative solutions are required if we are to maintain services, this may mean altering service structures and implementing more privatization, which is already occurring under UCP leadership. With discussions of expansion by the MEL Society, an innovative solution can be presented to offset the fiscal waste that can occur through the AADL program.

A final note from the environmental scan that bears repeating considers risk and liability that is attached to rental equipment. Equipment adapts the environment to promote safety, independence<sup>33-44</sup>, and quality of life<sup>34,36,37,39,41,42,45-53</sup>, however, there is inherit risk if the equipment rented was not first assessed by a health professional, specifically OTs<sup>36,39,40,41,44,51,52,54-57</sup>. The stated risk arises from a potential lack of knowledge on safety and use of the equipment, or how best to modify the environment to accommodate the user and the equipment, for example, removing all throw rugs in a house to mitigate tripping and falling hazards that can be associated with a walker and/or user feet catching the throw rug<sup>36,39,40,41,44,51,52,54-57</sup>. Home assessments by OTs are comprehensive, with recommendations given for environmental adaptation, including assessment for equipment<sup>36,39,40,41,44,51,52,54-57</sup>. Upon equipment arrival, OTs typically perform another home assessment to educate clients on how to safely use the equipment. These assessments and education sessions help reduce risk and liability for the OT, and the equipment user, however, it is still up to the user to assimilate the education and implement OT recommendations which does not always occur. OT home visits

are the ideal scenario to assist with equipment education and environmental modification, however home care OTs often have long waitlists due to being underfunded<sup>33,35,38,39,41,43,47,49,55,58,59</sup>. In many instances, the only contact a person may have with an OT is in the hospital before discharge<sup>38,54</sup>. Learning about equipment in a hospital setting, coupled with discharge planning becomes overwhelming for the client because of the breadth of information that must be integrated<sup>38,54</sup>. Also, learning about equipment in a hospital environment does not take into context the home environment, which can mean assessed equipment is not appropriate for the home<sup>38,54</sup>.

Individuals are typically experts in their condition and their home, and often they have used equipment before. Individuals should be allowed more autonomy when it comes to acquiring equipment, especially short-term. OT gatekeeping of equipment, long wait times associated with OT assessments, and requiring health professional referrals to access the HELP depots, removes individual autonomy thereby taking more control away from the individual and not allowing them to take responsibility for their health 36,39,40,41,44,51,52,54-57. Vendors who sell and rent equipment carry the same risk and liability levels as the MEL Society who rents equipment without a health professional referral. Risk and liability are mitigated by both vendors, and the MEL Society, by having clients sign risk agreements absolving the organization of any liability associated with inappropriate use of equipment and any injury that may result because of this. On-site equipment education further mitigates risk and liability. Since the MEL Society utilizes risk agreements and client contracts, they carry no more risk and liability than vendors. Consequently, the level of governmental concern relating to possible risks and liabilities funding equipment lenders who do not require a health professional referral should be negated. For more enhanced information on the MEL Society, the reader can refer to the MEL Society's Environmental Scan document that further lays out the internal and external contexts the MEL Society operates in and within.

## Synopsis of the Literature Review conducted for MEL Society

Literature reviews are an important component of understanding what empirical evidence is available to support the understanding of problems, issues, and what has been successful at mitigating said problems or issues. For the MEL Society, an issue is sustainable funding, which is unstable due to the volatile oil market and downturn in Alberta's economy. Research into the issue was surrounding how equipment access can be correlated to greater public health outcomes and how the role of the government policies and health care systems are supporting or undermining access, affordability, and public health outcomes. Through a better understanding of how equipment impacts users, and the greater population, governments can make informed decisions on how to provide funding. Current policies and programs in place in Alberta, especially AADL, do not provide delineated details on program costs, making it difficult for those outside of the program to run cost-benefit analyses. Quality of life is a main outcome for the use of adaptive equipment on, which makes leveraging for government support problematic. The goal of the literature review is to present the issue of global populations aging, and to determine what research is available in OECD countries pertaining to equipment use outcomes.

Globally, fertility rates are dropping, and aging populations are increasing exponentially, particularly in developed countries<sup>34-38,41,43,45,47,52,54,55,58,60,61</sup>. With this changing demographic, there are inherent problems that arise that are not specific to Canada, but to other OECD countries as well. One dilemma surrounds the influx of chronic diseases and its associated disabilities, and another is a need to support individuals to age with dignity and supports, and to create holistic policies that support aging in place and quality of life<sup>33,34,36,37,40,41,43-47,49,50,52-55,58</sup>. Life expectancies have grown in OECD countries, however quality of life ratings does not necessarily match the growth of life expectancies. The conundrum here is that what is the point of living longer, if there is no quality of life? One avenue to support quality of life and aging with dignity is the use of adaptive equipment<sup>33,34,36,37,39,40-44,46,55,57-60-62</sup>. At some point in every individual's life, there is a high probability that adaptive equipment will be required, whether for short- or long-term. For adaptive equipment to meet the needs of users, it is of upmost importance that individuals can access equipment in a timely and affordable manner<sup>33-35,39,41,56-59</sup>. These themes were evident throughout the literature review, which also identified other themes

that are extremely important when taking adaptive equipment into the context of becoming a tool that supports individuals to complete activities of daily living. Adaptive equipment is necessary for many individuals, including populations of the: frail elderly, bariatric, palliative, recovering from surgery, illness, or injury, degenerative diseases, chronic diseases, amputations, paralysis, etc<sup>34-38,41,43,45,47,52,54,55,58,60,61</sup>. Policies and programs must be implemented to ensure there is no systemic discrimination that relates to eligibility criteria which will lead to poorer overall health outcomes.

The literature review was conducted by the researcher. Inclusion and exclusion criteria were outlined. Search terms were generated and received hits on 6 databases. Peer-reviewed articles from 2000-present were independently reviewed by the researcher. 3,744 journal article titles were reviewed, and articles included in the initial review were 110. Of the 110, only 31 articles met the inclusion/exclusion criteria. Articles were taken from OECD countries as the issue of adaptive equipment access is not specific to Canada, and due to the nature of the broad qualitative research question posed 'is the access and use of adaptive equipment correlated to greater public health outcomes for persons in need, and how is the role of government policies and health care systems supporting or undermining access, affordability, and public health outcomes?'. Articles from the USA, UK, Canada, Australia, New Zealand, Spain, Japan, Korea and Sweden were included, with articles fitting into different designs including, narratives, mixed-methods, cross-sectional, case-control, prospective, longitudinal, literature reviews, pilot, scoping review, and quasi-experimental. The themes identified in the included 31 articles were discussed using the PIC (Population, Phenomena of Interest, Context) framework.

Within the population portion of the discussion framework, the main generalized theme reported is that population demographics are changing<sup>34-38,41,43,45,47,52,54,55,58,60,61</sup>. In the past, populations were robust working age adults with small children, now we have less babies being born and more individuals retiring and aging. There is no longer a younger demographic available to replace those individuals leaving the workforce. There are economic consequences to the demographic changes, with less working age adults, there is less tax revenues collected that pay for social services and health care systems that are supporting an aging population, which is driving up health care and social service expenditures as more individuals are relying on these services than there are individuals who are paying into them<sup>46,54,60</sup>. Innovative solutions

are required to ensure we have a health care system to support the needs of baby boomers, and one that will be sustainable for generations under the boomers. Aging in place is one avenue that governments, globally, are taking as overall it is cheaper to assist individuals to age in place than to move them into care homes. There are many associated benefits for the aging population to age in place, however, supports are required for the individual, their families and supports units to ensure aging in place is done safely. Populations that may require the use of adaptive equipment again include those recovering from surgery, injury, or illnesses, have chronic conditions, degenerative diseases, are bariatric, palliative, frail elderly, and/or disabled<sup>34-38,41,43,45,47,52,54,55,58,60,61</sup>. Women, older adults, individuals living alone, and/or have low socioeconomic status are the most vulnerable populations, have the highest unmet care needs, and suffer the most consequences of not having timely and affordable access to adaptive equipment<sup>41,45,48,53,59,62,63</sup>.

Vulnerable populations that suffer more health inequities, especially if living in rural environments, can increase their overall subjective health status with timely and affordable access to adaptive equipment 41,45,48,53,62,63. Adaptive equipment has been reported to increase physical functioning<sup>34,35,37,42,47,49,50,52,62</sup>, promote health equity<sup>41,45,48,53,62,63</sup>, decrease the likelihood of hospital re-admission post-discharge<sup>38,54</sup>, increase independence<sup>33-44</sup>, decrease isolation and depression<sup>36,45,48,53</sup>, increase mobility<sup>33,42,46,52,54</sup>, ease end-of-life difficulties for palliative patients<sup>59</sup>, improve quality of life<sup>34,36,37,39,41,42,45-53</sup> and safety<sup>35-38,41-44,47,49,56,63</sup>, decrease incidences of developing pressure sores<sup>46,64</sup>, promote social participation<sup>34,36,39,41,42,44,45,47,50,52</sup>-<sup>54,62</sup>, decrease tiredness and pain levels, and promote enhanced sexual health<sup>51</sup>. There is however, a theme of non-compliance noted in the literature, which mainly arises from a lack of autonomy and volition when individuals feel their voices are not heard during the assessment phase by OTs and are thereby less likely to use prescribed equipment <sup>37,39,41-43,56</sup>. Noncompliance is also a complication that arises from lag times between assessment and procurement of equipment 33,35,37-43,47,49,55,56,58,59. Long wait times and non-compliance is associated with either recovery or functional decline, in either scenario, the individual's needs have changed beyond the scope of what the prescribed equipment has been intended for, which further causes financial and medical waste<sup>33,35,37-43,47,49,55,56,58,59</sup>. Marketing also has a role to play in non-compliance in some instances because individuals do not feel that the equipment is 'pretty' and does not match their home décor, which causes reticence for installation and use<sup>35,41</sup>. Negative perceptions also play a role in non-compliance, if individuals feel like others will judge their lack of independence, or see the use of adaptive equipment as weakness, these individuals will be more inclined towards non-compliance<sup>35-39,42,4352,55,56,61</sup>.

Discussion of the phenomena of interest pertains to the use of adaptive equipment for those in need, and how it correlates to public health outcomes that are described through its impact on the social determinants of health (SDoH). SDoH influence population health and create health equity or inequities depending on the influence. Health equity leads to overall better individual and population health, which leads to lower total health expenditures, while creating robust populations that are resilient and take charge of their own  $health^{41,45,46,48,53,54,60,62,63}$ . Identified themes within the literature review that relate to the SDoH include aging populations and changing demographics in developed countries which increases chronic disease rates and obesity<sup>34,36,45,47,58,65</sup>. The most prevalent themes that arose from the literature relating to the phenomena of interest include aging, disability, and timely access to affordable equipment. Documented impacts of the usage of adaptive equipment for individuals relate to levels of independence, quality of life, physical function, safety, social participation, mobility, isolation, and discrimination/stigma<sup>37,41,45,48,53</sup>. Any inequities that arise from the aforementioned areas have negative health outcomes for individuals and populations, drives up the costs of health care services that have to be implemented to fill service gaps, and places increased financial, physical and emotional burdens on families, care-takers, and individuals.

Within the context of the research framework, provision of adaptive equipment is often ruled by government policies and funding streams allocated to government programs, which often have stringent eligibility requirements<sup>34,39,41,42,45,47-49,53-55,59,61-63</sup>. Other contextual factors relate to non-profits that provide loan equipment, costs for out-of-pocket purchasing, gatekeeping of equipment by OTs, long wait times to access assessments and equipment procurement, equipment access rurally and in urban settings, supporting aging in place, charters that promote health equity, and marketing of equipment by manufacturers. The listed contextual factors are enabling or are barriers. Enabling factors include aging in place, and charters that promote health equity<sup>45</sup>. Policy changes within both enabling contextual factors are driven by Canada's involvement with the WHO and WHO driven initiatives like age-friendly communities, aging in place, and the access to adaptive equipment and rehabilitation services, along with the

Ottawa Charter of Health Promotion<sup>45</sup>. These charters and partnerships promote holistic policies that reduce health inequities for Canadians<sup>45</sup>. Aging in place is promoted by the Government of Alberta as individuals can experience greater overall subjective health, social participation, and health equity by remaining in their homes, communities and close to their support networks while aging<sup>33</sup>. Successful aging in place requires holistic policies and support from organizations that promote safety, independence, and quality of life, where adaptive equipment loan organization align. Government support of enabling contextual factors is of the upmost importance to ensure better individual and population health outcomes.

Contextual barriers are mainly related to existing policies which can have negative farreaching effects on the health of individuals and populations. Should an individual not be
eligible for government funded equipment, the cost of out-of-pocket equipment purchasing is
excessively high, particularly if the equipment is only needed short-term. Equipment vendors
often offer rental equipment, but the rental rates are high, and vendors are typically only located
in urban centers<sup>45,48</sup>. High costs and travel to urban centers to procure equipment creates both
financial and access barriers for many rural Albertans and Canadians. With the uncertain
economic landscape in Alberta, coupled with the COVID-19 pandemic, there are less resources
and funding opportunities available which has far reaching negative consequences for both
government funded and non-funded non-profits, thereby putting all Albertans at risk of losing
equipment rental services.

In addition to the funding challenges faced by rural non-profits, government policies also negatively impact provision of adaptive equipment. Governments realize the necessity of adaptive equipment, however, government programs and policies in developed countries have strict eligibility requirements that can further marginalize and exclude vulnerable populations 34,39,41,42,45-49,53-55,59,61-63. Government equipment programs typically have long wait times to access the program, or for acquiring equipment 33,35,38,39,41,43,49,55,58,59. With strict eligibility requirements, many individuals who do not meet the government requirements are left to seek out alternate ways to procure adaptive equipment, which can lead to out-of-pocket purchasing, which can create further financial and access barriers for many vulnerable and marginalized populations. Purchased equipment, or funded equipment can increase medical waste that ends up in landfills because adaptive equipment is not recycled. If equipment can be

sent overseas to developing countries that helps mitigate landfill waste here, but the equipment will eventually end up in landfills in developing countries once the equipment has passed its operational lifespan. There is an environmental duty to reduce medical waste from adaptive equipment which can be met through rental or loan equipment via non-profit sources.

Government policies and programs drive how individuals access adaptive equipment, OTs become a group of equipment gatekeepers that can either enable or hinder access<sup>36,39,40,41,44,51,52,54,56,57</sup>. Rehabilitation staff are often underfunded in the health care systems which is indicative of longer wait times to access OT assessments, thereby becoming an access barrier for many waiting individuals in need. When individuals are assessed, a long wait time to procure equipment can lead to recovery or decline from the initial OT assessment which impacts how appropriate the equipment is once an individual receives it. Long wait times also increases the potential for medical waste ending up in landfills due to the possibility of inappropriateness of assessed equipment by the time it reaches the individual. Unless the government will fund more rehabilitation positions and hours, especially in rural areas, the issue with long wait times will continue to compound as the population continues to age. OTs need to be enticed to work and live in rural communities to ensure the rural populations have fair and equitable access to OT services. Should individuals have to suffer long wait times associated with OT gatekeeping, a negative health cycle emerges where individuals without equipment access begin to functionally decline, they withdraw more from society, perform less tasks around the house, become weak and more frail, increase their falls risk, which increases hospitalization risk, moving to care homes, or re-admission to hospital 36,39,40,41,44,51,52,54,56,57. This negative health cycle has detrimental effects on the individuals physical and mental health, and increases the amount of health care services an individual requires, thereby driving up health care expenditures, and is counter-productive to the government policy of supporting aging in place.

The literature review was conducted by the author only, in one month. Literature reviews are time-consuming and expensive and the most robust literature reviews are typically conducted with two researchers and can consume up to six months' time. With only one reviewer, there can be more bias present than a literature review conducted by two or more persons. There is also the potential that the reviewer missed some literature that would have fit into the

inclusion/exclusion criteria due to not enough search terms used, or during the review process.

These are noted limitations within the literature review conducted for the MEL Society.

## Synopsis of the MEL Society Community Survey Results

The MEL Society Community Survey was created to understand the value that Clearwater County residents place on the service provided by the MEL Society, and to gauge comfort and belief levels associated with the government initiative of aging in place, traveling to procure equipment, government funding, and if equipment promotes safety and independence. No demographic data was collected because the creators desired a short survey and since the MEL Society serves all demographics, the creators wanted to understand value and comfort levels across all demographics. The survey was anonymous, and 10 questions long. Ethics approval was gained through the University of Saskatchewan to ensure there would be no risks to potential respondents. The survey was disseminated through Survey Monkey, with online links uploaded to the MEL Society Facebook page and website. The Executive Director created a Facebook ad that promoted the survey. The survey was open from November 18 – December 4, 2020 and received 467 responses. Descriptive and inferential statistics were generated from the survey results using SPSS (statistical software package).

## **Descriptive Statistics**

Question 1 asked if the respondent has ever needed to rent equipment before, for themselves or anyone else, approximately 70% of respondents said yes. Question 2 asked if respondents have ever needed to purchase equipment before, for themselves or anyone else, approximately 67% of respondents said yes. Question 3 asked how important it is to respondents to have local access to equipment, using a likert scale, approximately 66% rated local access as extremely important, and another 26% rated it very important. Question 4 asked about comfort levels from respondents for paying a small fee if they ever needed to rent equipment, approximately 65% rated they were very comfortable, and 22% rated they were somewhat comfortable. Question 5 asked how comfortable respondents would be with traveling to urban centers if they needed to rent equipment, approximately 30% rated being not comfortable at all, and 39% not really comfortable. Question 6 asked how comfortable respondents are with the provincial government providing funding to lending services, approximately 76% rated they were very comfortable, and 14% rated they were somewhat comfortable. Question 7 asked respondents if they believe equipment promotes quality of life, approximately 92% rated they

believed equipment helped a great deal. Question 8 asked the level of concern respondents felt about the potential of equipment rental services closing due to lack of funding, approximately 68% rated they were concerned a great deal, 21% rated they were concerned a lot, and 9% rated they were moderately concerned. Question 9 asked how much respondents support the governments initiative of aging in place, approximately 63% rated they support the initiative a great deal, 23% rated they support it a lot, and 10% rated their support a moderate amount. Question 10 asked respondents how much they believe equipment can help individuals age safely in their home, approximately 84% rated their belief that equipment helps a great deal, and 15% rated it helps a lot.

The survey results indicated that overall, Clearwater County residents value the MEL Society's service, along with the government initiative of aging in place. Residents also value having a local lending service and would rather not have to travel to urban centers to procure equipment. Most residents support the idea of the provincial government providing funding to services like the MEL Society. Most residents also believe that use of equipment promotes quality of life and allows individuals to age safely in their home. For a further breakdown of the descriptive statistics, and to view bar graphs generated from the data, please refer to the MEL Society Community Survey Results Report on Descriptive and Inferential Statistics.

#### **Inferential Statistics**

Inferential statistics are mathematical equations that are used to note margins of error in data, and to make inferences of statistical results from a sample size, to larger populations. The more robust the data, the more the results did not occur by chance. The survey was created to eliminate as much survey response bias as possible. There is however, bias inherent in the way the survey was disseminated, where only individuals with computer and internet access could complete the survey, therefore we may be missing some demographics and can mean inferences to larger populations may not be as accurate. Due to the practicum time constraints, and COVID-19 restrictions, paper surveys could not be implemented in the community. The survey was qualitative, and the survey results were inputted into SPSS by the researcher. Chi-square tests were run on the data to determine if null hypotheses would be accepted or rejected.

Nominal and ordinal data variables were compared to determine the strength of association

between variables. Null hypotheses state that variables are independent of each other, whereas alternative hypotheses state that variables are associated with each other or are related to each other. *P* values were generated through the Chi-square test and measured against the standard alpha of .05, *p* values lower than .05 meant the null hypotheses were rejected and that the variables are related or associated with each other. The researcher created null and alternative hypotheses for questions 3-10 in the survey and ran that ordinal data against the nominal data from questions 1-2. The results are shown below.

- 1. Renting AND buying equipment in the past are both associated with how important it is to have local access to equipment. (strongest association both  $.000 < \alpha .05$ )
- 2. ONLY buying equipment in the past is associated with how comfortable one is with paying a small rental fee for equipment. (minimal association  $.049 < \alpha .05$ )
- 3. ONLY buying equipment in the past is associated with how comfortable one is with having to travel to urban centers to procure equipment. (strong association  $.007 < \alpha .05$ )
- 4. There is NO association between either renting or buying equipment in the past and the level of comfort one has with the government funding equipment rental services.
- 5. There is NO association between either renting or buying equipment in the past and one's belief that using equipment can improve one's quality of life.
- 6. Renting AND buying equipment in the past are both associated with the level of concern one feels that equipment rental services could close due to lack of funding. (renting strongest association  $.000 < \alpha .05$ , buying minimal association  $.047 < \alpha .05$ )
- 7. Renting AND buying equipment in the past are both associated with one's level of support for the government initiative of aging in one's own home. (strong association renting  $.003 < \alpha .05$ , minimal association buying  $.045 < \alpha .05$ )
- 8. ONLY renting equipment in the past is associated with one's level of belief that using equipment can help keep one safe in their home. (moderate association  $.027 < \alpha .05$ )

In cases that the p value was above  $\alpha$  .05, the null hypotheses were accepted indicating there is no relationship between the variables tested. Interestingly, having to buy equipment in the past showed relationships between variables more often than having to rent equipment in the past, which could be interpreted as more financial strain from out-of-pocket purchasing which

could be offset by the option of renting equipment. Despite no association between renting and buying equipment in the past and level of comfort respondents had with the idea of the government providing funding, most respondents were very comfortable with funding. The results of the descriptive and inferential statistics indicate that respondents value the service, support government funding, are concerned the MEL Society could close it doors due to lack of funding, and that equipment promotes quality of life and aging safely in the home. For a further breakdown of the inferential statistics please refer to the MEL Society Community Survey Results Report on Descriptive and Inferential Statistics.

## The MEL Society Serving Demographics

The MEL Society, located in Rocky Mountain House in Clearwater County, has a wide service area and serving demographics. In 2019, the MEL Society served all rural towns and villages in Clearwater County, and expanded into Red Deer County, and into Edmonton, Calgary, Lloydminster and even to one client in Whitehorse<sup>1</sup>. Such a large service area indicates how far spread the need is, despite Edmonton, Calgary and Red Deer having non-profit loan organizations. Using the pre- and post-client surveys collected by the MEL Society in 2019, 73.85% of clients would be considered vulnerable based on survey questions about quality of life and socioeconomic status<sup>2</sup>. Of the survey respondents, 56% indicated they were over 65 years of age, indicating that the MEL Society typically serves the senior population<sup>2</sup>. Survey respondents identified 63% as female and 33% as male, with the remaining identifying as 'other' gender<sup>2</sup>. 59% of respondents also identified having single or combined household incomes around the poverty line<sup>2</sup>. 11% of respondents indicated an education level of middle school and below, with 31% with high school education without a diploma, with 32% having a high school diploma and 26% having higher education<sup>2</sup>. 46% of respondents indicated they were unable to manage their own health conditions, and 68% indicated they struggle with mobility<sup>2</sup>. Data collected from respondents in the pre- and post-client surveys show that there are health inequities suffered by those who are renting equipment from the MEL Society, thereby correlating to community need.

Alberta Health completes community profiles that include health data. Rocky Mountain House's last community profile was completed in 2017<sup>64</sup>. Alberta Health reported that population health indicators for Rocky Mountain House, and Alberta's Central Zone, in 2014, specified that central zone has a higher obese population compared with the provincial rates, 27.2% for central zone, compared with 22.8% provincially<sup>64</sup>. Both central zone and provincially, rates of inactivity are comparable at 43.1%<sup>64</sup>. Clearwater County reported a population increase between 1996 and 2016 of 28.8% compared to the provincial population increase of 62.2%<sup>64</sup>. In 2016, Clearwater County's population of 35-64-year-old was 39.3% compared with the provincial count at 40.4%<sup>64</sup>. Individuals aged 65 and older account for 13.9% of the population in Clearwater County, compared with 11.8% provincially<sup>64</sup>. SDoH indicators include Clearwater County having a higher than provincial average of First Nations peoples at 8.4% vs. 2.8% respectively<sup>64</sup>. Clearwater County has a lower than provincial average of female lone-parent

households at 9.4% vs. 11.1% <sup>64</sup>. Low-income households in Clearwater County was comparable to the provincial average at 10.2% vs. 10.7% <sup>64</sup>. Clearwater County's most common non-English languages spoken include Aboriginal languages, Filipino, German, Dutch and Korean <sup>64</sup>. Chronic disease prevalence in Clearwater County, in 2015, was on par with the provincial average, and listed hypertension as the main condition, with rates per 100 population set at 19.3 in the county compared to 20.2 provincially <sup>64</sup>. Mortality rates in Clearwater County was higher than the provincial average per 100,000 population at 783.0 vs. 634.7 between 2006 and 2015, with the most frequent cause of death due to circulatory system diseases <sup>64</sup>. Mental health and behavioural disorders in Clearwater County are higher than the provincial average, in 2014, the Rocky Mountain House emergency department had a visit rate of 1048.0 in 100,000 compared with 676.0 provincially <sup>64</sup>. The life expectancy at birth for residents of Clearwater County is 78.7 years compared to the provincial average of 81.3 years <sup>64</sup>.

Population health indicators show that Rocky Mountain House, and Clearwater County have a higher-than-average obese population, and comparable inactivity levels based on provincial rates<sup>64</sup>. Demographic information shows that Rocky Mountain House, and Clearwater County have a lower population increase over 10 years compared to the provincial average, and a lower percentage of middle-aged adults, with a higher percentage of seniors compared to the provincial average<sup>64</sup>. Clearwater County has higher populations of First Nations, and comparable low-income households based on provincial rates<sup>64</sup>. The life expectancy at birth is lower than the provincial average, with higher mortality rates and emergency department visits related to mental health and behavioural disorders<sup>64</sup>. Clearwater County and Rocky Mountain House are clearly showing health inequities when compared to provincial rates. Services like the MEL Society work at bringing greater health equity to this underserved rural area by promoting quality of life, independence, safety, social participation, and mobility. In 2008, the Rocky Seniors Housing Council successfully applied for funding for a new 88-bed lodge to assist with bringing greater health equity to Rocky Mountain House for seniors who were not able to age at home safely<sup>65</sup>. The push for another lodge arose from the existing client demographics and were reported as frail seniors with low-income, which is mainly the MEL Society's serving demographic<sup>65</sup>. Most of the frail seniors were reported as women, with the majority being widowed, with 73.6% requiring mobility aides to ambulate<sup>65</sup>. Currently, Rocky Mountain House has adequate lodge, supportive living and long-term care beds, thanks to the newest funded

lodge, however, as the population continues to age, there will be a need for greater expansion of existing facilities to avoid moving seniors out of their communities<sup>65</sup>. The MEL Society also needs to remain operational to support the equipment needs of the growing senior population to reduce transportation and financial access barriers.

In April 2020, Clearwater County released their Seniors Social Needs Assessment to identify how seniors are faring, and what inequities they face, which can be utilized to build social programs and fill in service gaps<sup>66</sup>. A community senior needs survey was disseminated, with 313 responses<sup>66</sup>. The survey results and report indicated that the seniors population is increasing, there is a generalized theme of a good quality of life, there are lots of programs and services available, transportation is an issue for some, isolation and loneliness impacts local seniors, their mental health is a concern, some services are not affordable to all seniors, there is a lack of affordable housing, most have concerns about their personal safety, and ongoing communication and promotion of local services is required<sup>66</sup>. Due to the small response rate from the survey, there are questions about the robustness of the data. With over 20,000 residents in Clearwater county, with seniors over 65 accounting for 17% of the population in 2018, responses from only 313 seniors seems relatively low. With a low survey rate, there are concerns with how accurate extrapolation to the whole senior population can be. There may be inherent bias within the survey as it was voluntary, so only seniors who are more active and engaged in the community may have completed the survey and the survey outcomes may not reflect the needs of the whole senior population within Clearwater County.

The Needs Assessment looked at census reports and have predicted that by 2046, Rocky Mountain House will have the 6<sup>th</sup> largest senior population within the 19 regions in Alberta, with the provincial average expected to be 19% of the population and Rocky Mountain House making up 23% behind Edson, Whitecourt, Stettler, Banff and Hanna<sup>66</sup>. Rocky Mountain House is aspiring to meet the WHO's initiative of promotion of age-friendly communities wherein senior's basic needs are met, seniors can learn, grow and make decisions, remain mobile in their homes and communities, continue to build and maintain relationships, and to contribute to society<sup>66</sup>. More survey results indicated that 55% of respondents felt that there are social needs for seniors that require more services and attention with only 5% reporting there is no further need for services<sup>66</sup>. Respondents reported that affordable transportation within and outside of the

community is required, affordable and mobility accessible housing needs to be increased, financial elder abuse needs to be addressed, and that more programs and services are required to mitigate loneliness and isolation to maintain better mental health and wellness<sup>66</sup>. Cost and affordability of services was identified as main barriers, especially for those seniors living rurally in Clearwater County<sup>66</sup>. Rocky Mountain House does not offer a plethora of health services, especially specialized ones, which means residents often must travel to Red Deer to access enhanced health services, with affordable transportation as an identified barrier again. Senior respondents also reported that they desire increased health care services locally, to mitigate travel to urban centers, to reduce wait times to access local physicians which can take up to a month to get an appointment, that increased marketing of programs and services will mitigate knowledge barriers of what is available locally, intergenerational programming is important, and that many seniors feel shame when asking for help<sup>66</sup>.

Adaptive equipment access was not identified as a need in Rocky Mountain House, or Clearwater County, based on the needs assessment. The needs assessment highlighted similar issues that the MEL Society clients reported in their pre- and post-client surveys, that transportation and affordability are barriers to services. Since Rocky Mountain House has a non-profit equipment lending organization, it would not have been identified as a need. Most seniors hear about the MEL Society via word of mouth or through home care<sup>1,2</sup>. Despite adaptive equipment not being mentioned in the needs assessment, it has an important role within the community as use of adaptive equipment promotes age-friendly communities, increases quality of life, helps to mitigate social isolation and promotes safety. The MEL Society is needed in Rocky Mountain House to meet the equipment needs of the aging population. Having the MEL Society in town mitigates transportation barriers to access equipment services, and they only charge nominal fees to rent equipment which helps mitigate financial burdens associated with renting from vendors or purchasing equipment out-of-pocket. Clients can rent short-term while they await AADL equipment, or if they only require short-term usage.

## **Health System Analysis**

The WHO created a framework for Health System Performance Assessment, which aligns with the AHS Performance Review that was disseminated in December 2019<sup>67,68</sup>. As a health system analysis is comprehensive and extensive, the entirety of a health system analysis for AHS is beyond the scope of this report, so the author will focus on the rehabilitation portion of AHS as that is where adaptive equipment aligns. The WHO framework reports that many OECD countries have a wide variation in health outcomes which is an outcome of health system performance<sup>67</sup>. Decision-makers must quantify health system performance to enhance existing policies and programs to ensure health equity is reachable and that the health systems can be less variable between countries<sup>67</sup>. Ensuring socially valued health outcomes are met with health system responsiveness and fairness, using an international framework, like the WHOs will help OECD countries align health outcomes and reduce inequities<sup>67</sup>. The WHO recommends that health system analyses start with identifying intrinsic factors within the system and can begin with addressing the question "what are health systems for?" of possible professions and can begin with addressing the question "what are health systems for?" of possible professions are not can be gin with addressing the question "what are health systems for?" of possible professions are not can be given by the profession of th

Once intrinsic factors are identified, measurement metrics can be created to explore performance<sup>67</sup>. Intrinsic factors and metrics will lead to identification of extrinsic factors that impact health system performance<sup>67</sup>. Intrinsic and extrinsic factors within health systems lead to health outcomes that will be equitable or have inequities throughout programs and policies<sup>67</sup>. Boundaries of the health system must be identified so there is an understanding of what each health service is responsible for and to ensure there is no overlap which leads to health expenditure wastes<sup>67</sup>. Understanding the social goals and values of a serving population should lay the groundwork for creating and enhancing social systems<sup>67</sup>. Health system goals must be identified by decision-makers on all levels and include individual and population health, responsiveness, and fair financing and financial risk-protection<sup>67</sup>. Instrumental goals are the next step beyond intrinsic factors; instrumental goals include access to care, involvement in the community, and sustainability or innovation<sup>67</sup>. When instrumental goals are met, intrinsic factors are increased (level of health attainment, responsiveness, and fairness in financing)<sup>67</sup>. Since health systems are complex, with many moving parts, health system analyses become a daunting task to ensure appropriate metrics are devised to measure health system performance<sup>67</sup>.

Alberta has a robust health care system and has led the provinces within Canada to follow its structures and operations<sup>68</sup>. AHS has been restructured many times over the years, and Alberta was the first province in Canada to establish a provincial health care system that is less siloed than other provinces and territories<sup>68</sup>. Despite the successes in creating and delivering top notch health services to Albertans, there is still overlap and waste that occurs, and there are still parts of the system that are underfunded which consequently leads to health inequities. These inequities are felt the most in rural areas, and within the rehabilitation services provided. AHS hospitals, assisted living, nursing, home care and community care are robust, especially in urban areas<sup>68</sup>. Alberta spends more on health care than any other province in Canada, approximately 43% of the government budget go towards health care which outpaces Ontario on a per-capita basis<sup>68</sup>. Alberta has some of the highest health care wages in Canada, which also lends to the higher cost to keep AHS operational<sup>68</sup>. The UCP government had the review of AHS completed to inform and provide clarity to decision-makers on where health care dollars are spent<sup>68</sup>. By understanding how and where health care dollars are spent, health systems can be streamlined and improved to mitigate financial waste and to continue to provide Albertans with the best health care system in Canada<sup>68</sup>. The AHS health system analysis review highlighted 13 recommendations that deal with improvement of the workforce, management review and physician optimization, 21 recommendations for clinical services, 10 for non-clinical services, and 8 for governance<sup>68</sup>. Rehabilitation falls into the clinical services category, which also reports 27 saving opportunities<sup>68</sup>. The UCP government is committed to streamlining services and mitigating waste.

OECD countries, as noted above, experience a large variation in health outcomes based on health system performance<sup>67</sup>. Within Canada, there are also large variances between provinces that are linked to each province's health system performance<sup>68</sup>. Although Canada is above the OECD average on age-adjusted health care spending per capita, Canada leads the pack in age-adjusted percentage of patients waiting 4+ months for elective surgeries<sup>68</sup>. These long wait times necessitate the need for more rehabilitation staff to ensure individual and populations can maintain physical function, and for adaptive equipment being accessible and affordable to offset the physical and mental declines that occur while awaiting surgeries like total hip and knee replacements<sup>68</sup>. Although AHS has been promoted as top of the pack in Canada, a study from the Fraser Institute found that Alberta ranks 5<sup>th</sup> in Canada for physician access, and 7<sup>th</sup> for

nursing access<sup>68</sup>. The report also indicated that the median wait time between general practitioners, and referral to treatment is 26.1 weeks which is far above the national average<sup>68</sup>. These ranking leave much room for improvement and highlight the issue of long wait times for assessment services from physician to rehabilitation. The 2019 UCP budget planned to negate the provincial deficit by 2022<sup>68</sup>, which inevitably means cuts to health care; this budget was created before the COVID-19 pandemic which has consequently squashed the UCPs plan to balance the budget. As health care cuts have already occurred in non-clinical services (food and laundry), we should expect that further cuts will be required to get the ballooning budget due to COVID-19 under control. Budget cuts does not bode well for creating age-friendly communities, or for timely access to health care services which will create new health inequities and further existing ones, especially in rural areas.

Within the AHS performance report, there are overarching themes that pertain to clinical services; however, it is difficult to tease out where rehabilitation lies within their framework. The report recommends enhancing community care, although the recommendation is vague and does not describe the amount of nursing, rehabilitation and support staff required to meet the recommendation. The report stated that there are ambulatory care clinics across Alberta that have varying policies and procedures however they remain outside of the AHS framework of operations and have an unclear definition and purpose, which would include community rehabilitation<sup>68</sup>. It is also noted that there is significant lack of standardization between home care offices across the province, with many variances between consistency of services and availability, where rehabilitation falls again<sup>68</sup>. Without standardization, home care services and clients suffer greater inequities, particularly rurally where recruitment and retainment of health professionals remains problematic. The report further states that 1/3 of home care services are contracted to third-parties which can negatively impact the quality and continuity of care that clients receive<sup>68</sup>. It is recommended that AHS expand community-based programs and home care services, which include rehabilitation, and OTs who gatekeep adaptive equipment<sup>68</sup>. Without adequate funding for rehabilitation roles within AHS, long wait times will compound, physical declines will occur and increased pressure on acute care will arise as individual health needs are not being met in the community, thereby driving up health expenditures. There is a goal to reduce avoidable hospital admission and readmission which can be met with increased

community and home care services, which include rehabilitation and the access and use of adaptive equipment.

A move by the UCP government to cut health care expenditures has been seen through their promotion of privatization of some health care services, implementing a two-tiered system in some aspects of the health care system. Through privatization, non-profits like the MEL Society can take advantage to fill the service gaps that will arise through the transition period of semi-privatization. Adaptive equipment usage is proven to reduce hospital stays and readmissions by keeping individuals safe and independent or semi-independent in their homes longer. Albertans just require the support of timely access to affordable adaptive equipment that can be rented through non-profits at lower prices than out-of-pocket purchasing or vendor rentals. As budgets get cut, stricter protocols will be put in place to curb spending and reduce overlapping services, thereby increasing the need for non-profit services to fill the gaps that were not as prominent in the past. Albertans will not accept losing services without having affordable alternatives at their fingertips. Rehabilitation services are often overlooked when creating budgets and assessing performance, however, rehabilitation is a very important component to supporting individual's quality of life, independence and safety, which promotes better overall health and leads to better health outcomes that just acute care interventions on its own. The AHS performance report, although comprehensive, did a poor job at outlining rehabilitation specifically, within the contexts of services and expenditures.

## **Government Systems Analysis**

The health care system in Alberta is administered by the Government of Alberta<sup>69</sup>. The Ministry of Health (aka Alberta Health) is the branch of the provincial government that sets operational policies and directions with the goal of achieving an accountable and sustainable health system that protects and promotes the health of Albertans<sup>69</sup>. Alberta Health oversees 10 services provided to Albertans: Alberta Adult Health Benefit, AADL, Alberta Child Health Benefit, Alberta Health Care Insurance Plan, Continuing Care Information and Complaints, Mental Health Act, Office of the Alberta Health Advocates, Out of Country Health Coverage, Out of Province Health Coverage, and Protection for Persons in Care<sup>69</sup>. The Minister of Health is responsible for recruiting and appointing AHS board members and provides the funding and financial framework for AHS operations, which includes the approval of AHS's annual operating budget<sup>70</sup>. Alberta Health is also responsible for performance monitoring of AHS against the established AHS Health Plan<sup>70</sup>. Alberta Health essentially sets governance, acts and policies that oversee that operations of AHS throughout the province<sup>70</sup>. AHS board members report to Alberta Health, which includes the Health Minister, Deputy Minister, and the Chief Medical Officer of Health<sup>70</sup>. AHS is governed by the appointed board members, board chair and Chief Executive Officer<sup>70</sup>. AHS is responsible for providing fair and equitable health services to Albertans<sup>70</sup>.

Another important branch within the provincial government, that can pertain to the landscape the MEL Society operates within, is the Ministry of Community and Social Services. The Ministry is responsible to lead income, employment, disability, and community-based support, as well as family violence prevention, and family and community support services<sup>71</sup>. The Ministry's services include Alberta Supports, Assured Income for the Severely Handicapped (AISH), Employment services, Family Support for Children with Disabilities (FSCD), Family violence prevention, Homelessness, Income Support, and Persons with Developmental Disabilities (PDD)<sup>71</sup>. The Ministry provides these services throughout the province with the goal of fair and equitable services for Albertans<sup>71</sup>. Community and social services work in conjunction with AHS to provide more holistic care for Albertans, it is not just acute health care that is required for all Albertans to live healthy and meaningful lives, secondary and tertiary health care are needed, as well as community supports and social services. Both ministries work

together to promote health and wellness, and work at decreasing inequities within the SDoH, which leads to better overall population health outcomes. The MEL Society lends adaptive equipment, which supports better health outcomes for both ministries. Adaptive equipment assists with recovery from acute illness or injury, and promotes function maintenance for chronic diseases, which can help decrease overall health care expenditures within the Ministry of Health. Adaptive equipment also supports independence and community involvement which aligns with the Ministry of Community and Social Services by promoting meaningful engagement within society by those who require equipment to move safely and independently within the community. The MEL Society has loaned equipment to individuals who fall into the social services of PDD, FSCD, and AISH. The MEL Society has an important role to play within the mandates of the ministries and for promotion of health equity for rural Albertans through adaptive equipment lending.

The MEL Society also has a role to play within the municipal governments of both Clearwater County and Rocky Mountain House. The purpose of municipal governments is to provide good local governance, provide services, facilities and any other necessity that is desirable for the development and maintenance of safe and viable communities<sup>72</sup>. The municipal governments receive funding from the provincial government to provide the services described<sup>72</sup>. Municipal governments essentially work to fill in the service gaps that occur through provincial programs, services, and mandates, and to work for the holistic health of the community  $^{72}$ . Municipal governments can provide funding for local social services when a need is identified, and funding can be gained through the provincial government, or other municipal government revenue streams like property taxes. Elected councilors that govern the municipal government are responsible for the development and evaluation of local programs and policies, ensuring municipal powers, functions, and duties are carried out effectively, and to adhere to municipal and provincial legislation<sup>72</sup>. The MEL Society has a role supporting the municipal government as well, because it is providing a social service as a non-profit, that is filling in service gaps: timely and affordable access to adaptive equipment for the rural area. The MEL Society has an important role to fill that mitigates a service gap for rural Albertans in the area by allowing access to affordable adaptive equipment that support health equity and social participation. The Ministry of Health and the Ministry of Community and Social Services, as well as the municipal governments of Clearwater County and Rocky Mountain House should actively support the MEL Society, which often occurs on the municipal level but not the provincial level. The service the MEL Society provides is important and requires ongoing support as the MEL Society supports a large catchment of rural Albertans by attaining or maintaining independence, safety, quality of life, and social participation which all lead to better overall health outcomes for the population. A healthier population is more engaged in the workforce and costs the health system less as their health needs are being better met using adaptive equipment.

In 2017, at the Alberta Urban Municipalities Association (AUMA) held an Annual General Meeting (AGM) that was sponsored by the City of Red Deer wherein the topic of discussion partially surrounded the support of medical lending initiatives across the province<sup>73</sup>. The AUMA resolved to advocate to the provincial government to urge AHS and PDD to increase funding to support initiatives like the MEL Society and the Lending Cupboard with annual incremental increases, and to support communities across Alberta to develop similar initiatives 73. The AUMA noted that lending initiatives saves AHS a substantial amount of money every year and that urban and rural communities across the province articulated a strong need for expansion of lending initiatives into underserved communities<sup>73</sup>. The desired expansion allows seniors to safely age in place, it improves quality of life and health outcomes for seniors, injured individuals or those who are disabled, and have chronic diseases or illnesses, while supporting wellness in communities across the province<sup>73</sup>. The AUMA brought these concerns forward to the then Deputy Premier, Minister of Health, Sarah Hoffman<sup>74</sup>. The response from Hoffman identified that the government was aware of the issue of communities desiring loan initiatives and that Albertans need timely access to affordable short-term loan equipment<sup>74</sup>. The response included a small description of how AADL works and that AADL is not appropriate for all Albertans to access as it is designed to meet long-term disability, chronic illnesses, and palliative care equipment needs<sup>74</sup>. Hoffman stated that Alberta Health was working in conjunction with AHS and other stakeholders to figure out ways to expand the provision of adaptive equipment in communities as well as the most effective way for these services to be delivered<sup>74</sup>. The AUMA accepted the government response<sup>73</sup>, but to this date, we have seen no action plans based on the AUMA's advocation. Since 2017, the government has changed from NDP to UCP leadership. The UCP has its own agenda and budget concerning adaptive equipment. Information gained through confidential conversations with rehabilitation professionals in AHS, the author has learned that to date, the UCP government is planning to disband AADL for budgetary reasons,

and offloading AADL funding structures to Alberta Blue Cross, and that the HELP depots are disbanding across Alberta and have desired to donate their equipment to local hospitals, which many hospitals are not accepting. These new structures put in place by the UCP puts Albertans in a precarious place when it comes to accessing short-term, and long-term loan equipment and may further promote health inequities across the province.

#### WHO and PAHO Initiatives

The WHO is the leading global organization that promotes health equity across all countries and sets precedence for policies and programs that countries should utilize if they desire to lower total health expenditures while also raising health outcomes<sup>75</sup>. The WHO has many initiatives that support health, wellness and equity, and Canada collaborates with the WHO to support its initiatives nationally, provincially, and locally. Assistive technology (includes adaptive equipment) is an important topic for the WHO as it recognized that access is a global issue<sup>75</sup>. The WHO states that adaptive equipment helps maintain or improve individual wellbeing through physical functioning and independence, that more than 1 billion people globally require at least one piece of adaptive equipment, that the global population is aging and there is a rise in chronic diseases, and they predict that by 2030, 2 billion people globally will require at least one piece of adaptive equipment, with many older peoples requiring 2 or more pieces, and that as of today, only 1 in 10 people who require adaptive equipment actually have access to it<sup>75</sup>. Lack of access is noted to arise from high equipment costs, a lack of awareness of equipment, a lack of equipment availability, trained personnel, supportive policies, and funding streams<sup>75</sup>. The WHO outlines why adaptive equipment is important, and their reports align with the literature review, wherein adaptive equipment allows individuals to live their lives with dignity, independence, and in a healthy, productive manner<sup>75</sup>. The WHO states that adaptive equipment allows individuals to participate in educational pursuits, the workforce, and in civic life<sup>75</sup>. Adaptive equipment also reduces the need for enhanced health and support services, can assist with aging in place, and decrease the burden on caregivers<sup>75</sup>. Without access, individuals become isolated, socially excluded, can induce poverty, and increase the burden of disease or disability for the individual, their family and society<sup>75</sup>.

The WHO describes adaptive equipment having socioeconomic benefits. For individuals of working age that require a wheelchair, having access to one allows them to pursue education and occupation while reducing health care costs that are associated with pressure sores and contractures, which occur without proper adaptive equipment<sup>75</sup>. Adaptive equipment also allows for aging in place which can prevent or delay the necessity of moving individuals into long-term care settings, which promotes better overall mental health<sup>75</sup>. The WHO also states that there is an unmet global need for adaptive equipment<sup>75</sup>. 75 million people who require a wheelchair

cannot access one, with only 5-15% of that population being able to access a wheelchair<sup>75</sup>. The WHO also states that countries with the highest prevalence of disabilities tend to have the lowest supply of trained personnel to provide adaptive equipment, with rates as low as 2 professionals per 10,000 people<sup>75</sup>. Low-income countries suffer the lack of access to adaptive equipment most prominently<sup>75</sup>. The WHO outlines the fact that many countries do not have national policies that support adaptive equipment programs<sup>75</sup>. In many countries, access to adaptive equipment is poor to non-existent, even in high income countries<sup>75</sup>. High income countries tend to ration access to adaptive equipment, or they do not include adaptive equipment in their health care systems which leaves many families purchasing equipment out-of-pocket at high prices, driving up health inequities<sup>75</sup>. Although Alberta have policies and programs for accessing adaptive equipment, there are still accessibility, affordability, and eligibility barriers, especially now that those provincial programs are being disbanded.

The WHO also states that the market for adaptive equipment is targeted to high income countries, and there is a lack of user-centered research and development, which was also prevalent within the literature review<sup>75</sup>. High income countries can lack quality and safety standards for adaptive equipment, and they can lack funding streams and service delivery systems<sup>75</sup>. Most high income countries do not have integrated adaptive equipment provision services, which means individuals in need must access multiple appointments and professionals to attain potential eligibility to access equipment, which promotes further health care and personal care burdens on the health care systems, individuals and families<sup>75</sup>. Even in high income countries, persons of low socioeconomic status are prone to reliance on equipment donations and charitable organizations that cannot always provide high quality equipment<sup>75</sup>. The WHO is promoting universal health coverage through its 2030 Agenda for Sustainable Development, which puts well-being and good health at the center of its vision<sup>75</sup>. Universal health coverage must also have policies in place to support provision of adaptive equipment for all<sup>75</sup>. The United Nations (UN) Convention on the Rights of Persons with Disabilities, which was ratified by 177 countries aligns with the WHO goals of universal health coverage to address unmet needs for access to adaptive equipment<sup>75</sup>. The position of 'leaving no one behind' is the stance taken by the WHO and UN to ensure that individuals with disabilities, chronic diseases and are aging have the capacity and capability to be included in society and are able to live a dignified and healthy life<sup>75</sup>.

In 2017, the WHO created the Rehabilitation 2030 A Call for Action report, which outlines the case of global aging populations, the increase of chronic diseases, and the need for enhanced rehabilitation services to mitigate unmet needs, optimize physical functioning, promote independence, social participation and creating space for aging and disabled persons to lead a meaningful and dignified life<sup>76</sup>. The WHO identified barriers to enhancing rehabilitation services as a lack of awareness and advocacy which must be increased, along with increased investments pertaining to the rehabilitation workforces and infrastructures through enhanced leadership and governance<sup>76</sup>. The call for action reports that demand for rehabilitation services will continue to grow with the growth of our aging and disabled populations, and that services must be improved to promote greater health equity<sup>76</sup>. The call for action recognizes that rehabilitation is an essential component on the continuum of care and should therefore be more integrated within the greater health systems <sup>76</sup>. The WHO sees rehabilitation as an investment in human capital that will ensure more individuals are able to contribute to their health, and social and economic development through social participation<sup>76</sup>. The calls for action echo the WHOs adaptive equipment initiatives wherein more holistic and non-discriminatory policies are required to mitigate unmet rehabilitation needs, to improve funding and the number of available skilled professionals, and to integrate rehabilitation more heavily into health systems<sup>76</sup>. Access to and use of adaptive equipment is an essential component of rehabilitation, which requires more governmental supports to ensure we can provide populations in need with dignity, independence, safety, and social participation<sup>76</sup>. The MEL Society operates within the WHO framework on the Rehabilitation 2030 Call for Action. The MEL Society assists in filling in service gaps within the rehabilitation framework, as it is evident in the research that the global need for services outpaces the availability of services, and that gap will continue to grow if governments do not support initiatives like the MEL Society. Failure to provide adequate rehabilitation services, like equipment lending initiatives will inevitably increase overall health care expenditures as there will be more reliance on traditional health services to mitigate unmet needs.

The WHO also has created a Global Strategy and Action Plan on Aging and Health for 2016-2020<sup>77</sup>. The WHO estimates that by 2050, 1 in 5 individuals will be over 60 years of age, consequently meaning health is a huge factor that will drive health care expenditures<sup>77</sup>. The WHO states that there is evidence that even though people are living longer, they are not

experiencing a better quality of life<sup>77</sup>. The strategy sets out to achieve improving functional capacity, filling of service gaps, and promotes equity, non-discriminatory practices and intergenerational programming which will generate greater overall population health<sup>77</sup>. The WHO recognizes that successful action will arise from the understanding that functional capacity relates to environmental factors that include health systems, policies, social services, social participation, attitudes, and values<sup>77</sup>. A key action identified is that health systems must reorient around intrinsic individual capacities and functional abilities, and to ensure affordable and timely access to person-centered care, which can include the provision of adaptive equipment to help meet the unmet needs of the aging population and to promote independence, safety, quality of life and social participation<sup>77</sup>. The strategy also states that more work needs to occur to develop age-friendly environments and communities, which will foster older individual's autonomy and engagement, leading to better overall population health outcomes<sup>77</sup>.

Canada partners with the WHO and the Pan American Health Organization (PAHO); PAHO also have action plans in place for supporting the health of older persons, which includes active and healthy aging<sup>78</sup>. Access to timely and affordable adaptive equipment assists older persons with maintaining activity and promoting healthy aging. The PAHO also recognizes that the global population is aging, and policies and programs must be in place to support this growing population and their needs<sup>78</sup>. The PAHO states that many aging persons are experiencing lower socioeconomic status that their younger counterparts which mean interventions must be timely, affordable, and accessible for the aging population<sup>78</sup>. The PAHO recognizes that increasing longevity does not necessarily correlate to a healthier, longer life with a healthy quality of life, thereby making interventions that support longevity and quality of life particularly important<sup>78</sup>. Investment in programs now, will ensure populations can age safely and with dignity, which will lead to better health outcomes and lower the reliance on acute care health services<sup>78</sup>. The PAHO upholds the stance that "maintaining the quality of life of elderly people should be part of health programs geared specifically to this age group"<sup>78p2</sup>. Adaptive equipment is essential for maintaining independence, safety, and quality of life; therefore, governments need to ensure they have equitable policies and programs in place to support sustainable, affordable, and timely access to equipment<sup>78</sup>. The PAHO also states that policies and programs must ensure there is no rural discrimination for the aging population, as there are inequities inherent between urban and rural aging populations<sup>78</sup>. As the global populations

39

continue to age, health care demands will grow, unless policies and programs are put in place now to support healthy and active aging where adaptive equipment has its place<sup>78</sup>. The PAHO recommendations are based on the UN values listed in the Principles for Older Persons, which include promotion of independence, participation, care, self-fulfillment, and dignity, which can all be met with the provision of adaptive equipment along with other supportive health promotion policies and programs<sup>78</sup>.

#### **Discussion**

Globally, demographics are changing, which will consequently impact our current health systems. As unmet health needs of individuals arise, there will be increased burdens placed on health care systems which will drive up health care expenditures. We require innovative solutions to mitigate the impending burdens that health care systems will face; innovative solutions will be required in many aspects of health care as populations continue to age, and there are increases in disabilities and chronic conditions. Medical equipment lending is one avenue that can support mitigation of unmet health care needs via provision of rental equipment to alleviate mobility concerns and declines in functional ability to complete activities of daily living. The literature has shown that many individuals report unmet care needs while aging and facing functional decline and disability. These individuals need to be safe and supported in their living environments, and many desire to remain in their home and communities as long as they can, which aligns with the provincial government's initiative of aging in place.

Without access to affordable equipment, the risk of falls and fractures increases, as does frailty and functional decline, which increases rates of hospitalization and drives up the total costs of health care services. As individual physical decline mounts, there are associated declines in mental health due to isolation, depression, and feelings of being a burden on families, which all lead to poor population health outcomes. Through continued support of equipment lending initiatives, more individuals will have timely and affordable access to equipment, which promotes better health outcomes as they do not have to wait to access OT services and government funded equipment purchases. Long wait times can lead to more functional decline, or individuals can recover making the assessed equipment no longer suitable for the individual and leads to medical waste in landfills and fiscal waste within the government. Individuals who require the use of a wheelchair cannot wait for months on end to procure one, making lending services essential to ensure large portions of the aging and disabled populations have access to a vital service that ensures they can continue to have meaningful participation in their lives. Lending initiatives promote quality of life and independence. Without timely equipment access, greater health inequities arise, particularly in rural areas.

Services like the MEL Society will become increasingly important during uncertain economic times as there is less monies available from governments to support initiatives, from companies who provide monetary donations, and from individuals who are facing financial burdens from unstable workforce conditions. These issues coupled with the COVID-19 pandemic, where individuals are encouraged to travel less, the need for more rural lending initiatives is of the upmost importance so vulnerable populations do not become more vulnerable and marginalized. Further concerns are arising within the government funded equipment purchasing program (AADL) and government funded lending programs (Red Cross HELP). AADL is an expensive program to keep operational, and the demand for equipment is growing as our demographic ages. AADL is being dissolved by the UCP government and offloaded to Alberta Blue Cross. Alberta Blue Cross will be able to be more responsive to assessments as it will all be completed online by authorizers, where AADL still operates through mail and faxing of required documents. At this time, we do not know if Alberta Blue Cross will keep the same eligibility requirements that AADL had, or if they will become more restricted, or if individuals will have to pay a greater portion of the equipment purchase out-of-pocket. There is the potential for further marginalization of vulnerable populations through this move to disband AADL and offload it to a privatized insurance group. Privatization can increase reliance on nonprofit lending initiatives who will require enhanced government funding and support.

Red Cross HELP depots across Alberta are slated to also close their doors. This creates a huge gap in lending services because HELP has the most locations across the province. When HELP fully dissolves, there will be only 4 non-profit lending organizations left in the province, with only one receiving annual government funding, the Lending Cupboard, in Red Deer. Individuals who require rental equipment will be forced to drive long distances to rent equipment, or they must rent from vendors for extremely high costs, promoting further health inequities. HELP originally wanted to donate their excess of medical equipment to local hospitals so they could run their own loan programs, however, most hospitals are declining the donation because they do not want to take more onto their operational plates. With HELP closing, the closest non-profit lending initiative will be Wetaskiwin for any individual living north of Wetaskiwin. Wetaskiwin has a small non-profit lending initiative and will not be able to support the entire equipment needs of the northern provincial population, so individuals would have to go to Red Deer or Rocky Mountain House for more selection of equipment. Closing

HELP will cause huge inequities and gaps in servicing. Many Albertans in need will no longer have the limited access to rental equipment they once had, rental equipment provision will become more problematic for individuals which will lead to declines in overall population health. Albertans will be put in a precarious situation with the dissolution of HELP and AADL, making the MEL Society services much more important in the long run. Hopefully, the provincial government will take a more serious look at funding the existing non-profits to ensure they can remain operational, because if they cannot remain open, equipment lending in Alberta will all but cease to exist, and Albertans will suffer, along with the health care system. The only other option for accessing short-term loan equipment will be from whichever home care offices across the province still have an active loan pool, which AHS has slowly been phasing out, or from equipment vendors.

#### Recommendations

Through the research gathered and synthesized by the author, over the course of the 3-month practicum, many recommendations were identified, from operations to advocacy for funding. The recommendations will be highlighted below and broken up between recommendations garnered from the research to complete the environmental scan, literature review, and community survey results.

## **Environmental Scan Recommendations**

- 1. Use information gained through the environmental scan to bolster credible support to advocate for annual government funding.
- 2. Update environmental scan every time there is a change in provincial governments to ensure the MEL Society is staying abreast of current market trends, re-aligning business strategies to meet changing market demands, taking advantage of new opportunities that arise out of changing external landscapes, and to address threats before they become significant problems.
- 3. Enhance current data collection methods, including tracking late returns and the reason for such, and what time of year lending dips or spikes, collecting this data will garner better understanding of clientele needs and can help bolster the stance of funding advocacy.
- 4. Investigate registering with NIHB's rental program, which will add the MEL Society to NIHB's roster of available rental agencies serving Indigenous populations and reducing barriers of service access that Indigenous peoples can face.
- 5. Increase number of available bariatric equipment items within loan pool as the bariatric population is increasing and access to bariatric equipment is in short supply provincially.
- 6. Work towards facility ownership to reduce high rental rates for warehouse space.
- 7. Increase community awareness of the service as word of mouth and home care referral are the most common ways individuals know about the service.
- 8. Frequent updating of Facebook page and website to improve optics in the community and stay relevant in newsfeeds, updating should occur at least twice a week.

- 9. Create website and Facebook content to keep followers engaged, which can include website blogs and/or newspaper editorials on discussions related to the social determinants of health, environmental stewardship, providing transparency for reasons for charging fees, and how equipment use can promote safety, independence, social participation, quality of life, etc.
- 10. Seeking out a social media volunteer who can handle the increased workload of continual maintenance of social media platforms.
- 11. Sign up with Twitter to further promote program awareness through more social media platforms.
- 12. Create an online store on the website that contains all home-made donation items that are kept at the MEL Society, creating a larger platform for people to see what is available to purchase with proceeds going to the MEL Society.
- 13. Utilize social media platforms to post thank yous to donors, with their permission.
- 14. Determine donation benchmarks so all donors are thanked in the same way based on how much is donated (i.e. platinum, gold, silver, bronze donors).
- 15. Create a picture wall in the office of individuals and the equipment piece they are donating so they are thanked as well, with the individual's permission.
- 16. Participate in Alberta's Adopt a Highway campaign to increase community optics and open opportunities for more funding streams related to environmental stewardship.
- 17. Seek celebrity endorsement which will increase optics and awareness of the service and why it is important.
- 18. Seek out funding opportunities from international non-profits and donors that have visions and missions that align with the MEL Society's, one example is the Tony Robbins Foundation.
- 19. Contact the Minister of Economics that controls the provincial equipment surplus pool and increase pressure to have them release more equipment to non-profits at low- to nofees so lending pools can grow.
- 20. Reach out to OTs to see if they are willing to donate their time in educating staff on proper and safe equipment use, which can be shared with clients.
- 21. Create a portfolio of one-page handouts for each style of equipment on safe use that can be handed out to clients when equipment is rented.

- 22. Develop annual ergonomic training for staff and volunteers to ensure everyone is up to date on the safest moving and lifting practices.
- 23. Hang-up safe lifting and movement posters in warehouse area to remind staff and volunteers of safe practices.
- 24. Review non-profit insurance annually to ensure it is still meeting organizational and equipment needs.
- 25. Should the MEL Society lose their contact with the gentleman who pays to have surplus equipment shipped overseas to developing countries, they should contact non-profits in the USA who strictly operate to ship equipment overseas so the MEL Society can continue this practice of environmental stewardship at low- to no-overhead costs.
- 26. Consult with the local home care office and hospital to see if operating hours should be amended to meet discharge needs from the hospital.
- 27. Amend current client pre- and post-service surveys to ensure surveys do not contain biases, or leading questions, and that no question is potentially offensive or marginalizing.
- 28. Expand operations into underserved areas across the province.

### **Literature Review Recommendations**

- 1. Place pressure on the government to loosen restrictions on equipment prescriptions to address equipment non-compliance and waste that can arise out of prescriptions, and long wait times to access equipment.
- 2. Educate clientele on safe use of equipment and provide handouts.

# **Community Survey Recommendation**

1. Advocate to the Alberta Government, with support of the reports generated through the practicum, for fair and equitable annual funding for the MEL Society, the government should be providing similar financial supports that it gives to the Lending Cupboard.

## **Closing**

The final report for the MEL Society outlined the research reports generated for them by the practicum student. Synopses for the environmental scan, literature review and the community survey with statistical analyses were presented. The environmental scan highlighted what services are available to Albertans to rent or procure funded purchase equipment. The scan found that many funding streams exist for equipment provision, however, all funding streams have varying degrees of eligibility which can further marginalize already vulnerable populations. Equipment is expensive to purchase out-of-pocket and can create financial access barriers. Most lending and vendor services are in urban environments which creates travel and accessibility barriers to access equipment. Short-term loan equipment is particularly important for many Albertans, and the service provided by the MEL Society is important and requires annual government funding to ensure it can continue to meet the equipment needs of Albertans who are elderly, bariatric, palliative, have chronic conditions, are recovering from illness or injury, and who may be experiencing functional decline for any other reason.

The literature review generated global themes surrounding equipment access and use. Equipment use is reported to increase, or maintain, the user's quality of life, mobility, physical functioning, social participation, safety, and independence. Globally, governments require holistic equipment policies to support WHO and PAHO initiatives of aging in place, and equitable equipment access. Canada partners with both the WHO and PAHO, and therefore has the duty to create or amend policies to align with WHO and PAHO benchmarks which will lower overall health expenditures and increase overall population health. With global populations aging, and rising rates of chronic diseases becoming more prevalent, services like the MEL Society are extremely important to mitigate unmet needs felt by many vulnerable Albertans.

The dissolution of AADL and HELP depots across the province, puts Albertans in a precarious place as timely access to affordable equipment will become more sporadic and problematic, which can create poor overall health outcomes. The MEL Society must advocate to the provincial government for annual government funding to create equitable services for rural Albertans. The community survey results supported the conclusions drawn from the literature review and from the strategies and action plan created by the WHO and PAHO. We must ensure Albertans continue to have timely and affordable access to rental equipment to promote health equity.

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