The Ability to Move:
A transportation and accessibility study on persons with disabilities living in rural communities

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Do current transportation options offer people with disabilities in rural communities such as Grey County the means to reach the resources and destinations needed to live a healthy and fulfilling life?

**Introduction**

Rural communities often find themselves with limited transportation options and frequently no alternatives to the use of a personal vehicle. This research defines the importance of adequate transportation and focuses its scope on people with any form of disability, who are at a disadvantage due to their inability to individually use a personal vehicle. The research looks at the importance of accessible transportation options, types of transportation methods, and the effects that lack of transportation can have on a person’s quality of life.

A case study will look at Grey County to define service needs and the gaps that currently exist. The research finds that the need for consistent scheduled service for the working class with disabilities is not met. The research uncovers other groups, which fall outside of the disability category that suffer from the same transportation disadvantage and its consequences. This research attempts to develop a framework to identify transportation service gaps in Grey County but the primary objective of the research is to draw attention to the transportation needs of people living with disabilities in rural communities.

**Goals and Objectives**

The research focused on two main goals that circled the primary objective of bringing attention to the disabled population living in rural communities and their lack of transportation options. The first goal was to determine the necessity of having adequate transportation options in rural communities through a literature review which evaluates the population in need of accessible rural transportation, the repercussions on quality of life through social, physical, economical and emotional boundaries, due to lack of
adequate accessible transportation options and the approaches to accessible transit that currently exist.

The second goal was to address rural transportation issues more directly and with a more defined scope of understanding through a case study taken in Grey County. The case study attempts to define the transportation needs for people in the Grey County area and attempts to understand and apply a framework for identifying the transportation gaps that are apparent in the county.

The research is attempting to meet the following objectives:

a) Take a look at the issue of transportation gaps in rural communities
b) Understand the importance of have adequate transportation options
c) Use a case study to evaluate rural transportation capacity in Grey County
d) Create a framework for assessing transportation gaps in Grey County

The paper will be broken down into the following sections; the first is the literature review, which will look at the current information surrounding accessible transportation. It will conclude with a framework for evaluating and assessing the case study.

The second part of the research is the case study, which will look at Grey County as one large picture. The third section applied the framework that was developed at the end of the literature review. The final section of the paper will look at possible solutions to the issue and conclude the research.

**Problem Definition**

Transportation is a difficult concept on its own and rural transportation is a current research issue. Rural communities often lack adequate transportation services and require the use of personal vehicles in order to navigate the community and to gain access to personal needs. Rural communities cover the Canadian landscape, and these rural communities are populated by a variety of different people and lifestyles, not all of which allow for ownership of a personal vehicle. Individuals with disabilities often find themselves as part of this community that are unable to physically, mentally or financially own and operate a personal vehicle. These individuals that are living with disabilities need access to work, education and basic services just like everyone else. In urban centers public transportation is not always equally accessible, but the infrastructure
exists and people living with disabilities are usually able to get around their city with the help of close proximity, larger resource bases (social networks, volunteer groups, etc.) and plentiful and often more affordable transportation options.

Living in rural communities initiates a whole new level of difficulty, as opposed to living in more urban areas. Simple necessities such as grocery stores are no longer across the street; they can be several miles away, often located in another town altogether while other important necessities such as medical care and support are even farther away. When you need access to a specialist they often reside in more urban areas, making access for rural residents even more challenging. Yet these people need access to the same services that people without disabilities need, and they need access to the same services as those in urban centers. Bus routes are often limited - if not non-existent- and operate on short schedules with low frequency between services. If there are routes available, they may be inaccessible to people with disabilities, through distance or general physical barriers. These are just some of the many aspects of conflict that restrict access throughout rural communities. The literature will provide a framework that will be used to assess and analyze the transportation system in Grey County.

**Literature Review: Understanding the Issues**

**The Disabled Population**

According to Stats Canada 2006, 1 in 7 Canadians reported living with a disability, which adds up to over 4.4 million Canadians (page 5). The portion of Canadians living with disabilities increases with age. The rate of disability between younger groups is much lower than within the aging population. The severity of disabilities also varies greatly between different individuals and impacts different aspects of a person’s life. The type of disability is also often determined by age. People in younger age categories tend to be diagnosed with learning, communication and developmental disabilities; whereas the older age categories tend to have disabilities that are related to pain and mobility *(Disability in Canada: a 2006 Profile)*.
The Accessibility for Ontarians with Disabilities Act defines a disability as being both visible and non-visible as well as being both temporary and permanent. It is listed in Sched.8, sec 1 Part 1:

“Disability” means,

a) any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the forgoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device,

b) a condition of mental impairment or a developmental disability,

c) a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language,

d) a mental disorder, or

e) an injury or disability for which benefits were claimed or received under the insurance plan established under the Workplace Safety and Insurance Act, 1997;

There are 2.8 million Canadians living with disabilities across Canada that take a long trip each year (80+ km). Of these Canadians approximately 1.3 million have mobility needs which endanger their chances of pursing travel due to inaccessibility in transit. Currently 800,000 people use the transportation system and experience different degrees of difficult, while an additional 700,000 people are prevented from long distance travel all together because of the transportation system. (Steinstra, 2012, page 63).

The disabled population often find themselves burdened and discriminated against by society and by the lack of access to society, more than they are by their disability (McClucky 1988). In order for there to be full equality and social justice, people need to have access to all activities and locations that are deemed as normal or typical by general society, regardless of location or ability. Social inclusion is part of social justice, and without having access to adequate social conditions a person is receiving less than the remainder of society (Farrington and Farrington, 2005). Many social constructs are often responsible for alienating groups and preventing them for participating in society because
they are often labeled as ‘incapable’ (Macphearson, 2009). People with disabilities do not like to be seen as unable or special. There has been a large movement to the equality and inclusion of people with disabilities and a focus on taking the ‘dis’ out of the equation to showcase abilities. The movement has gone as far as to change the well-known symbol for disability. The original symbol is simply a person sitting in wheelchair while the updated symbol shows the person moving, leaning forward as if the wheelchair is in motion to help alleviate the assumption and stigma that people in wheelchairs are immobile and unable.

![Figure 1: The original handi-cap symbol (left), the new and improved handi-cap symbol (right)](image)

**Current State of Transportation**

The use of a personal vehicle across Canada has more or less become a social norm. Even students and those living in urban centers often have a vehicle that is available for use, should they need it. People with disabilities may not have access to a personal vehicle or they might not have the ability to operate one. Children are a part of this category. Children living with disabilities are dependent on their parents or guardians to access medical care or education. A study by Wheeler (2009) showed that over half of children with a disability relied on a school bus to get to school compared to only a third of their able bodied classmates. As much as 6.6% of children with disabilities reported not having transportation to doctor’s appointments and appropriate health care (Page 158).

Children are often able to rely on a parent or a guardian for transportation. What happens to these individuals when they are no longer children, but adults or elderly? Not
only do they not have a guardian to provide transportation, they also have more locations to reach. Since independence is also important to human health, it should be assumed that even those with disabilities need access to work (to which a school bus is no longer an option), grocery shopping, stores, medical services and social support.

Accessibility of buses across both rural and urban communities have been improving, many buses now provide lower floors for wheelchairs to gain access and easier accessibility for aging, or other low mobility groups. This is often an obligation in terms of laws and policies that require transportation systems to be accessible to peoples with disabilities (White, 2011).

Businesses can also play an important role in the transportation of people with disabilities, especially in rural communities. Transportation businesses are more rare in rural communities for many of the same reasons that public run transportation systems are, they simply are not economically viable. The demand is not large enough and not consistent enough for businesses like taxi companies to want to take up shop in smaller communities. When taxi companies do exist in rural areas they are often found in more suburban higher density cities.

Taxi Services are typically demand driven making taxi services in rural areas relatively rare. Rural communities are low population and low-density meaning that many taxi companies are urban operations due to economic constraints (White, 2011). Those living outside of urban centers may still be able to use this option, but will often face a premium price in order to pay for the additional distance, as taxi services are unable to make a series of services in rural areas making the route unviable for a business. It is important to note that while a transportation company may offer transportation services in a rural area many vehicles are not equipped to handle wheelchairs or other accessibility needs. Most companies will have on hand a minimal amount of accessible transportation options, which need to be booked ahead of time to ensure its availability, if the service is offered at all.

Unfortunately most public transportation services are demand driven, and the demand in rural communities is just not large enough to have services provided or the demand appears to be non-existent (White, 2011), leaving those without a personal
vehicle at a disadvantage. Currently 25-30% of people with disabilities do not have their disability needs met by the current transportation system (Steinstra, 2012, page 63).

Rural communities suffer from lower frequencies of service and irregular service patterns (many services do not run 7 days a week, and offer different hours on different days), transportation areas often focus on major routes and neglect those located farther away from major service roads (White, 2011). People living in rural communities make less trips per day than their urban counterparts, yet the trips they take cover 38% more distance than people living in urban centers (Pucher and Renne, 2005 page 170).

People with disabilities are not the only ones that struggle with accessibility in terms of use of transportation systems. Parents with young children and strollers will often find themselves struggling to access certain areas much the same way a person in a wheelchair would (although strollers can be folded, picked up, and carried around).

While many people have access to transportation, this access is often difficult to define. It can mean access to transportation through a personal vehicle, public transportation or through the vehicle of a family member or friend. The really important aspect is the person’s level of mobility and the number of locations a person can reach and the level of difficulty to do so (Turcotte, 2007).

The provincial and municipal governments share responsibility for providing communal transportation systems to the public. The federal government does not have responsibility within public transportation systems, but does within the overall policies of disability rights, as well as providing certain Canadian wide Transportation options (primarily major routes, air and sea travel). The decisions that are made in terms of disability accessibility should be made based on human rights, and not based on costs (Stienstra, 2012).

**Driving Capacity**

The general population as it ages experiences an increase in disability, mobility limitations and experiences a decrease in vision and hearing. Many of these attributes associated with aging can impact their ability to drive safely. For many giving up driving is about a lot more than just giving up driving, it’s about giving up independence and the ability to do and participate in more things. There would be an increased demand on
others to support the elderly’s needs, as well as increased isolation as they are able to participate in less parts of daily life including social activities (Rudman et al, 2006). This can also severely impact the quality of life by having less social interaction and a higher degree of dependence on others. The distance a person is required to drive as well as the conditions of the roads are all variables in determining the driving capacity of the aging population (Schultheis et. Al, 2009). In many rural communities the quality of roads and distance between destinations can make it much more difficult for seniors to maintain their driving ability.

The distances between locations in rural communities can also make it much more difficult and time consuming for others to be responsible for their transportation. This could lead to such a large personal expense (gas) and time commitment on the part of the family member that many trips may not be made. Many aging seniors who are losing mobility and other abilities that affect their abilities to drive will reduce and restrict their

Figure 2: View from a blurry windshield. Bad weather and night driving can often influence the ability of a person to continue driving under certain conditions. Living in Canada inclement weather often spans several months (December-April)
driving habits in order to still maintain their sense of freedom by avoiding driving on highways, at night or in bad weather (Rudman et al, 2006).

A study done in the UK showed that none of the minimum income standards in the UK were high enough for the family to own a personal vehicle. The study showed that in urban centers the ownership of a car was less important as families could afford to effectively get around with the use of public bus systems and the occasional use of taxi services when needed. However the study also showed that cars were a necessary living standard for those in rural communities due to the dispersed location of services and employment as well as the responsibilities to an individual and their family based on limited to no public transportation systems in rural areas (Smith et. Al 2012). This means that people that lived below the minimum income standard (anyone living on social assistance) could not afford to own a vehicle and for those in rural communities it meant that they were unable to reach destinations. This becomes an employment barrier for many people and results in the continued financial incapacity to drive.

Driving capacity does not touch only the capacity to financially afford to own a personal vehicle, nor does it only touch on the demand capacity. Physical and mental driving capacity is also very important. There are occupational therapists and doctors who are trained to assess an individual’s ability to drive. For many people they are not physically capable of driving a vehicle when they are impacted by certain physical or mental disabilities such as vision or lack of coordination. However there are many other things that influence a person’s capacity to drive. Certain types of medications can inhibit one from operating a vehicle safely. Disorders such as sleep disorders or memory disorders like dementia can also affect a person’s ability to drive (Schultheis et al, 2009). As people age or find themselves inflicted with different physical and mental limitations they should seek consultation with an expert as to their continued capacity to drive. For many people it is not a personal choice to drive, but rather it is a consequence or side effect of their conditions, many of which are permanent, meaning they will spend their entire lives without the capacity to drive.

**Urban Versus Rural**
There is a new trend towards disability inclusion and there has been a new surge in research devoted to making the world more accessible. However there seems to be a lack of information available for accessibility in rural communities. Looking through several small rural communities it is easy to see that transportation systems simply do not exist in these areas. It is easy to understand why. Rural communities have highly dispersed residences and amenities, making transportation systems not economically viable for the amount of ground they would need to cover for such a small population (the majority of which have no interest in using public transit). This leaves a large gap for those who have disabilities that do not have access to a personal vehicle. Many either cannot afford one, or do not have the ability to operate one. So why do people with disabilities live in rural communities if they do not have public transportation, have limited medical services, and have a highly dispersed social support (both for disability and general purposes)? For many people living in rural communities, it is simply not an option to live in an urban center.

Many people living with disabilities fall into low-income categories (find citation), and many people with disabilities face discrimination in the job market or are not able to work and support themselves. This alone makes self-sufficiency difficult, but housing prices and rental rates across Ontario differ greatly from urban and rural communities. Urban homes are more costly, for that reason alone they are not an option for people with disabilities who have low income. Many others will find themselves relying on family or friends for support, both physical and emotional, that are only available within rural communities and moving away from these support systems could be detrimental or non-optional for many people, even if it means giving up a large portion of their independence. Independence is a contributor to quality of life. It’s a vicious circle that seems to leave people with disabilities at a disadvantage for both proper access and for quality of life.
People living in rural communities are affected not only by lack of transportation, but also by the pricing of any transportation that does exist. The cost to run transportation systems in rural communities can often be much more costly than in urban centers as the transit is required to travel farther distances and with a decrease in use this means fewer dollars going towards affording the service. Since most transportation systems are paid for through fares, taxes or both, rural communities are once again at a disadvantage as they have a lower amount of both (White, 2011).

The debate between urban and rural goes a lot deeper than just transportation and affordability issues; there is an ongoing discussion as to the health on the lives of people living in rural communities. It has long been believed that people living in rural communities had more access to fresh air and the environment and were more physically active in their lives. A light was recently shed on this that is proving this assumed fact to be false. Obesity rate across the country are on the rise with rural communities leading the race with a higher number of reported obesity cases (Gamm et al, 2003), and with rising obesity and nutrition concerns, come rising concerns for many other health factors that could lead to temporary or permanent health concerns and in some cases creating disabilities or worsening existing disabilities. Those living in rural communities are less
likely to use walking and cycling as a mode of transportation than those living in urban centers (Pucher and Renne, 2005). This plays into the health difference in urban and rural communities. Urban centers offer the option of walking and cycling to different destinations whereas the distance in rural communities would make this concept impractical for many.

**Lack of Access to Transportation**

**Work and Education**

What does the lack of transportation access in rural communities mean to those living within that situation? Getting anywhere without a personal vehicle can be challenging when living in a rural community, but that doesn’t negate the need for access to work. With greater distances to work and childcare services and limited transportation services many people in rural areas are simply unable to work. Work commutes have been growing in length, with most job opportunities being located in larger urban centers or more suburban areas, people living in rural communities are at a disadvantage when it comes to the job search and will more likely than not, have longer commutes to work (Heisz and LaRochelle-Cote, 2005) which makes it more difficult when rural transportation is limited or non-existent. For many people certain employment opportunities are made impossible because they do not have any way of accessing the employment that could ultimately help raise the person and their family out of poverty.

For those that are low-income and who are receiving social assistance to help provide for daily life, one of the major barriers to employment is a lack of consistent, reliable or effective transportation (Fletcher et al, 2010).

There has been recent talk of the closure of Ontario sheltered workshops. Sheltered workshops are supervised workplaces for people with mental and physical disabilities. The workshops are usually located in industrial areas and pay minimum wage or below, and involve tasks that include assembling Remembrance Day poppies, packaging student pamphlets, and building wooden crates. Recently there has been a lot of debate as to the harm and the potential good that the sheltered workshops might create.
On one side of the fence people believe that the workshops are equivalent to slave labor as the employees work for pennies on the hour. They believe that they are being segregated and denied the opportunity of being productive members of society and of meeting their full potential. On the other side of the fence people say that these workshops are a blessing. They are not about making a substantial amount of money or being able to own a home, but instead are providing a safe and secure place for people with disabilities to go where they can make friends and be surrounded by people who understand them. These people believe that the sheltered workshops are not about making an income but are about feeling included and productive while being safe. One advantage of sheltered workshops is that vanpools are often provided so that separate transportation in both urban and rural communities is often not required.

**Health**

While some studies have shown that transportation to health care services in an issue of concern in rural communities, it is important to note that transportation issues can have a variety of meanings (Arcury et al, 2005). For some this could mean not owning a personal vehicle, having no access to public transportation systems, being too far a distance away, relying on family or support system to access health care systems, and proximity to emergency medical services.

Within the last ten years the number of general practitioners within rural areas has increased dramatically. There is no longer a deficit in rural communities for general health care. However, with a dispersed population, the distance between practitioners and their clients is exponentially larger than in urban centers. There is a deficit of quality and efficient health care professionals, clinics and offices to service the large number of people that are living in rural communities (Gamm et al, 2003). The deficit exists mostly for specialized care medical professionals and emergency medical services (EMS). Emergency Medical Services are at a disadvantage in rural communities much in the way transportation is. With a dispersed population there is no centralized demand for medical services. This can make the placement of medical clinics and hospitals more difficult and can often lead to a long commute for some patients. Longer commutes are less than ideal, especially in emergency situations. Transportation has been quoted as one of the major
issues amongst rural residents in the utilization of healthcare services. Access to healthcare services is important in terms of both EMS and routine care and in rural communities both are being affected by transportation (Arcury et al, 2005).

Not only is the population density lower, so is the availability of medical professionals and services. In the case of EMS time is a very important factor in the patient’s care and highly dispersed medical clinics could severely hurt the person in need of immediate help if it takes too long to access a certain point. While ambulances are often used to transport people to and from a hospital, in many rural communities a hospital or emergency medical clinic could be located as far as an hour (sometimes more) away. In this case the ambulance would have to travel both there and back, making for a lengthy trip for those in desperate need of intervention. (Paramedics are only able to offer so much in terms of medical assistance).

The use of health care services in rural areas were driven by two main characteristics; the first is having a driver’s license and the second is having a support person (family or friend) who can provide regular transportation (Arcury et al, 2005)

People living with disabilities who do not have their health care needs met or that do not have access to health services and healthy living conditions such as home, food, and health care are most at risk for poor health and developing a secondary disability. They are also more at risk of poverty and social isolation. One example of this that has been a source of media concern was the lack of accessible mammograms. Since these machines were inaccessible to certain types of disabilities many young women were unable to undergo screening which failed to diagnose them in a preventative state. Many women were later diagnosed at greater health risk because they were unable to undergo proper preventative screening early on, and some women faced mortality due to lack of accessibility in prescreening (Krahn, 2011). Obviously this is a large issue. While things like cancer may not be related to a person’s current disability, they are still at risk and are entitled to access preventative screenings or treatment should it be needed. Accessibility to medical treatment, screening and care in Canada shouldn’t be an issue. Everyone deserves equal access to the health care system regardless of income, mental ability, physical ability, age or race.
Imagine a world where transportation isn’t necessary. You might have a disability, but every service that you require is brought to your door. You can order your clothes online, have groceries delivered, if you need a doctor, they will come once a month or once a year to provide you with your check up. This might seem like an ideal world, but the ideal of it can easily be chased away. Have you ever been sick? Stuck home for days, and unable to go out and have fun? That trip to the grocery store ends up being the highlight of your week. You’re eager and desperate to return to work. Yet if you can work from home, have groceries delivered, you never have the access to the outside world. Wouldn’t you go stir crazy?

Unfortunately we as humans do not simply require materials that can be deposited at our doorstep and left for us to find at a later time. We require social interaction, and we require purpose. Closing someone inside of a house with nothing is not a life style. It is a punishment. Just look at solitary confinement. One of the harshest forms of punishment available to this day, and that’s because you are depriving the human mind of something that it needs for survival. Socialization. Social interaction is one of the most important aspects that influence the quality of human life (Lehmann, et al. 2012). When people with disabilities are forced by their situations to live in isolation because they do not have proper access, it is like punishing them. They are open and susceptible to a multitude of negative consequences that range from mental, physical, emotional and social.

The social impacts of living with a disability can start at a very young age. Unfortunately many young people living with a disability often also experience low social support and lower financial security. Both of these factors often create a social setting in which the young person grew up in and both have proven links towards poor mental health (Honey et al., 2009).

Seniors and pre-seniors in a study by Rudman, Friedland, Chipman and Sciortino (2006) indicated that they wanted to remain driving for as long as possible because losing the ability to drive themselves was giving up their independence and was seen as a way of having control over their own lives. When a senior or any other person ceases driving they are at the whimsy and schedules of those that they are relying on. Some even believe that relying on another person for transportation is not a reliable mode of transit (Fleather
et al., 2010). Seniors who had access to a car were more likely to go out during the day, with only a 19% chance of them staying home during the day (Turcotte, 2007, page 44). For people without a personal vehicle this daily trip is not possible and can have many negative mental health effects.

**Types of Approach to Accessibility**

There are two main approaches to provide accessible access to people with disabilities. These include a minority group approach and a universality approach. While there is no approach that is outlined in the accessibility policy as a main approach, there are definite drawbacks and advantages to each approach. The minority approach looks at people with disabilities as a minority group and therefore looks at people with disabilities as having different needs than society. This can be a very effective approach as it often provides specific solutions that target a variety of disabilities and provides great service for those with disabilities (Bond, 2013). However, since this approach looks at people with disabilities as a minority group they are looked at as not the ‘norm’. This means that people with disabilities often have to take a round-about approach to service or access that often leads them into a segregated pathway that separates them from the general population and often times social companions and groups.

The second approach is Universal design which looks at disabilities like they are normal, or part of mainstream. In other words universal design does not focus on disabilities as a minority and takes into account that the majority of the population will associate themselves with a disability (temporary, permanent, or age associated) at some point in their lives. Service in this approach is much more inclusive and does not evolve around ways of achieving service or access. While this approach is generally preferred, it can still disadvantage certain types of disabilities, can be costly and in certain situations not possible (Bond, 2013). The Universal design approach can also offer lower service standards because it is designed generally for disabilities, which can often mean lower service standards. In a minority approach all the service needs and attention are focused on those with a disability to meet their service needs, but in a universal design approach the service needs of those without disabilities are also being provided meaning that those with disabilities will be offered lower attention. In certain cases, where an individual is
fairly independent this difference may not matter, but for those with less independence or more severe disabilities this can alter the use and experience of that person rather drastically.

If the people designing buses were to picture people with low physical limitations such as the inability to climb stairs as the norm, instead of as the exception, than buses could be designed with ramps and lower floors as if it was standard practice and people with disabilities would have more equal access to transportation (McClucky, 1988). From this approach buses would not be designed to be ‘accessible’ to those with disabilities, they would just be designed. The one major issue with this theory is that not all people with disabilities experience physical limitations in terms of low mobility (as to inhibit stair climbing) but people also live with vision, hearing, mental and many other disabilities that prohibit them from accessing or using public transit in different and unique ways, and it is impossible to account for every type of disability and interaction type that needs to be met. Certain types of needs may even contradict one another.

While these are the two major approaches to accessibility it is important to note that they are not the only ways in which access and service should be designed towards those with disabilities. While disability policy is often included in by-laws in terms of distances, widths and heights for certain services such as doors, hallways and bathroom facilities, existing buildings are not required to comply with such strict measures. Many buildings are able to follow a ‘retro-fit’ standard, which is a subcategory of the minority group approach. Access and services to peoples with disabilities can often be avoided, should the costs or process of implementation be considered undue hardship on the person responsible.

The struggle between different types of accessibility is argued between groups, those with disabilities want full and equal access to all forms of transit and their facilities while the industry and the government (the ones paying for it) want to offer an equal mobility through a separate or specialized transit system (Smith and Riggar, 1988). This is much similar to the struggle between universal design and minority group designed accessibility for people with disabilities. The struggle here has less to do with the type of access though, more to do with weighing human rights and the costs of implementing systems that are equal to all.
Part of the debate between different forms of accessibility stem from discrimination. People with disabilities see a labeling of themselves as special or in need of accommodation and this becomes synonymous with saying that they are different, or not the norm, and does not look at having a disability as normal (McCluskey, 1988). Today disabilities are very common, and almost everyone in their lifetime will experience some form of physical or mental limitation especially as we age.

**The Case of Via Rail**

Via Rail is not known as a rural transportation provider, as the rail company operates on a national level across Canada. It allows for movement, through and between provinces. While it’s not possible to compare it to Rural Transportation systems it’s an important piece of transportation across Canada as many stations pass through rural communities and have bus lines that connect to rural towns. It also got a lot of attention several years ago when a case was held against it over accessibility for people with disabilities, which make it an interesting case to consider when looking at transportation options for people with disabilities, as you would assume a carrier as large as Via Rail would be more accessible. Many of these issues would also be applicable to rural communities.

Claire Mehta, a 52 year old woman with a neurological condition that affects her mobility, has fought her entire life towards equality and accessibility for peoples with disabilities. She began a complaint against Via Rail because a number of their cars were not accessible to wheelchairs. The Council of Canadian’s with Disabilities ended up taking the case, which went all the way to the Supreme Court of Canada. Via Rail purchased 139 rail cars costing $29.8 Million, which were inaccessible to people with disabilities. Via Rail made the claim that the cars were “sufficiently” accessible and that employees would be responsible for transferring passengers into on-board wheelchairs, delivering food and assisting them with washroom use or any other services. The Council of Canadians with Disabilities (CCD) complained that the cars held too many obstacles for people with disabilities.
Via Rail was ordered to change 13 economy coach cars and 17 service cars (of the 139) so that one accessible car would be available on each daytime and overnight train.

**Precedent Case**

**Eugene, Oregon, USA**

**Lane Transit District (LTD)**

Lane Transit District is a fixed-route service that provides transportation to Eugene-Springfield and surrounding communities. A decade before the ADA (The American’s with Disability Act, similar to the Ontario AODA) the entire service had installed lifts and reached out to the disability community. LTD holds contracts with human resource agencies to maintain accessibility and to continue to stay up-to-date on accessibility needs. In 2008 LTD established a call center called RIDEsource for people who require different services or features in order to maintain their standard of accessibility. The service coordinates a variety of relationships and partnerships that help them to maintain their service such as coordination with pre-schools for children of parents with disabilities as well as senior communities (Simon & Simon et al, 2013)

Via Rail appealed the decision on the grounds that it would cost at least $48 million dollars to abide by this order, which was undue hardship on the side of Via Rail.

It was not found to be an undue hardship because the company worked within the interests of non-disabled and the interests of people with disabilities and that the costs to retrofit the cars to accommodate wheelchairs would cost nowhere near the $48 million that Via Rail had submitted. In the end the Council of Canadians with Disabilities were able to receive their demands for more accessible transportation with Via Rail.
Unfortunately, despite winning the case there was at least one reported Para-Olympian who was unable to travel from Toronto to Vancouver using Via Rail and was therefore unable to participate (Steinstras, 2012). The debate of human rights and equality over the costs to do so is one that had been fought many times. While the case of Via Rail is only one case, it was not the first and will unfortunately not be the last. The idea of complete equality is difficult to achieve when that equality comes at such a high price.

**Disability Policy in Canada**

Disability laws and policies are different across Canada as each province has its own policies and pieces of legislation put into place. For the purpose of this study we will focus on federal policies and policies within the province of Ontario where the major case study is located. Federal policies surrounding disability rights were founded in 1982 in *The Constitution Act*, which contained a section stating all people regardless of mental or physical disability, have the right to equal protection and benefit of the law.

The first transportation related law for the disabled came in the form of protecting handi-cap parking spaces which placed a regulation that disallowed anyone from parking in designated parking spaces without a valid permit to do so clearly displayed. This was first introduced in the Government Property Traffic Act, 1985. The Canada Transportation Act of 1996 is the most current federal legislation that protects peoples with a disability on a national level. The law covers a variety of modes of transportation including railway and air transportation systems (Bond & McColl, 2013).

The province of Ontario has a large inventory of legislation, and many pieces of the legislation contain regulations and statements intended to protect and provide equality for peoples with disabilities within certain situations and conditions. These laws handle everything from Daycare centers to Elections to police services and even some conservation authority acts. The two most important acts relating to those with disabilities in general are Ontarians with Disabilities Act, 2001 and Accessibility for Ontarians with Disabilities Act, 2005. The second piece of legislation is responsible for the development and implementation for the accessibility of all goods, services, facilities, and programs in Ontario (Bond & McColl 2013).
Canadian disability policy works on a model that compensates adults living with disabilities from not being able to compete within the market economy (August, 2009). Much of disability policy in Canada views people with disabilities as part of a ‘worthy poor’ (Machphearson, 2009) instead of focusing on the human rights issues.

The current government approach is to provide public subsidies as a replacement for private earnings, in cases where private earnings are not possible or are at a disadvantage. This is a passive policy approach that fills the pockets of the disadvantaged community enough to survive without surplus, however neglecting to recognize the personal benefit for earning an income (both personal satisfaction and community approval). August (2009) argues that the most beneficial approach to policy would be to invest in development that would allow for more inclusion in the main stream and to steer away from the passive approach that leads to segregation from the working community.

The MTO (Ministry of Transportation) and the Ontario Government are trying to stay committed to improving transportation systems in local municipalities to make them more accessible, safe, and effective for the users. They have several goals in place that are to be completed during 2015 through 2016 (MTO, 2014), therefore the success of the new measures will not be seen until they are completed and have time to be evaluated (2017 or later).

The MTO plans to increase the skills and knowledge of their staff through training, modules and practice to improve the services and experiences involved in MTO related projects. They have also addressed three key barriers that they plan to work on in improving the accessibility of people with disabilities, which include creating and developing a standardized process with tools and measurements for improving accessibility barriers. This will help to improve efficiency in moving through barriers and provide a consistent framework for which addressing accessibility can be seen. A standardized process can help to protect the needs of certain groups by ensuring that all barriers are looked at and addressed with a minimum amount of attention. It also plans to review 51 targeted high impact statutes and to review policies and guidelines for selected high-impact legislation. The statutes will be looked at based on the following criteria outlined by the MTO (2014):
a) “Statutes that affect persons with disabilities directly;
b) Statutes that provide for the delivery of widely applicable services or programs;
c) Statutes that provide benefits or protections; or
d) Statutes that affect a democratic or civic right or duty”

Accessibility for Ontarians with Disabilities Act, 2005

The AODA (Accessibility for Ontarians with Disability act) was brought into legislation with the intent to develop and enforce standards for accessibility in terms of goods, services, facilities, employment, accommodation and buildings. The AODA had a target date for all implementations to be completed by which was before January 1st, 2015. The goals of the AODA are meant to be phased in slowly so as not to overwhelm or over burden those who must comply, as well as give those who must comply time to do so (including financially).

The first goal of the AODA was to inaugurate a standard of accessibility. Those who must comply to the standards include any person or organization that engages in the activities of providing goods, services or facilities, employing within Ontario, offering accommodation, owns a business or any building or structure that is considered ‘public’ or open to public. The standard is meant to identify, prevent and remove barriers to make Ontario more accessible.

In order to establish accessibility standards the AODA also designed a committee that invites three groups of people to sit and develop the standards that will be implemented by 2025. The three groups are as follows: people with disabilities representing their own interests; organizations, businesses, etcetera, whom will be required to comply with the standards; and last, representatives from Ontario Ministries that are affected by or related to the organizations affected, or the disabled population themselves. The committee is responsible for setting targets for policies, practices and several other requirements that will lead to a more accessible Ontario.

Should any conflicts arise between the AODA and another regulation, authority is to be given to the law, which gives people with disabilities the most accessibility. This is a powerful section to be included in the AODA, as it identifies equality of access and equality of life to be the most important aspect.
Transportation Methods

Disabilities that affect a person’s ability to drive do not just play a pivotal role in the lives of those with the inability to drive a personal vehicle, but also strongly affect the family and friends around them. They are no longer able to be completely independent and require the help of others to transport them around. For children of parents who are transportation disadvantaged, they have no one to drive them to school, soccer games or to dance classes. Whatever extra social interactions that kids need, the parent(s) that have a disability are not able to attend to these needs. At least not on their own. This can become even more devastating when both parents are unable to drive or in a single support family. The aging population can also suffer from disabilities that effect driving ability. Often one spouse is not able to drive a vehicle and relies on the second spouse to meet their transportation needs. This dependence could be life-long or it could be temporary. However when the spouse that fills the driving needs becomes unable to drive themselves due to health concerns such as loss of mobility or dementia, the second spouse also loses their mobility. The death of a spouse can also leave a non-driving individual without a driver. Elderly who are no longer able to drive themselves places are often fronted with the option of moving into a senior’s residence that helps to assist them in their daily needs in terms of food and social support so that driving a vehicle is not mandatory. What about the elderly that just lost a spouse? Their world was just turned upside down by the loss of their life partner and taking them away from the home they had shared together would be cruel. The people in these circumstances often live in rural communities that don’t have transportation systems. These people need mobility options. So what are the mobility options that can be offered in rural communities?

There are several transportation models that can be used to provide transportation to people in both urban centers and in rural communities. It is important to understand as many transportation models as possible in order to determine what the choices for improved access are and to understand why certain models may be ineffective or impractical in certain situations.

Personal Vehicle
The first model of transportation is the model that most rural communities are based off of, and that is *personal ownership*. This model requires people to own and operate their own vehicles and to provide the service of transportation to themselves, while the local governments take responsibility for infrastructure such as roadways and the required maintenance, and also services such as snow removal and street cleaning (University of Montana, 2007). This is a minimalist approach that works for many individuals but severely disadvantages any group that cannot operate their own vehicle such as low-income families, the aging population and people with disabilities.

The second model of transportation is *public transportation*, which is broken down into different types of systems, which are fixed route, demand-responsive and deviated-fixed routes.

**Fixed route service (public and private)**

Fixed route service works as the typical bus system does in most communities. Buses run on predetermined schedules along mapped out routes to meet the needs of the people living within the community. Buses travel specific routes and stop at designated locations or *bus stops*. Fixed route services can be made accessible to people with disabilities if the buses are properly equipped with low floors, lifts and audio announcements of stops as well as with the proper training of staff. However the distance to and from stop stops can still pose a problem for many individuals and fixed route services are often not economically viable in rural areas where population is highly dispersed and demand is very low.

**Deviated Fixed-Route Services**

A deviated fixed-route service acts similarly to a fixed-route service. Buses run on a fixed schedule along a specific predetermined path. In a deviated fixed-route system the bus may occasionally take trips that deviate from its fixed route. For example a fixed route bus system may also run every Thursday from the local senior home to the local mall and return several hours later. Another example would be a bus making a short detour in order to accommodate a special need such as a school or even a person(s) with a disability during a certain time frame.
Vanpool Services

Vanpool services are often used when multiple people live in a similar area and work together in the same workplace or attend the same educational institute. The vanpool is often provided by the workplace or school and is occasionally subsidized by government grants when the service proves it is providing help in growing the quality of a person’s life.

Precedent Case

Arlington Heights, Illinois, USA
PACE Suburban Bus

Figure 5 A PACE Suburban bus loading a wheel-chair passenger

The PACE bus system was created in 1984 as a suburban bus service outside of Chicago. They offer accessible options such as dial-a-ride and vanpool services which transport people with disabilities to work. PACE also created Para-transit service within the larger city of Chicago. They work with sheltered workshops to help to generate acknowledgement of the service as well as targeting faith-based groups that help them to reach underrepresented groups (Simon & Simon et al, 2013).

Demand-Response Service (dial-a-ride)

Demand Response services (often known as dial-a-ride programs) provide transportation to people on a demand basis. A rider calls a number and puts in a request to be picked up and transported to a location. Similar to taxi-services, dial-a-ride programs usually operate on a fixed rate inside local areas and charge extra fees when hired to drive outside of the local boundaries. One drawback to demand-response services
is that the request for transportation needs to be placed ahead of time, often several days. Most of these transit services are specialized in that they work with people who have disabilities and mobility limitations and cannot participate in the use of regular bus services.

**Ride-Share Programs**

A ride-share program is a carpool system that offers a financial relief to help cover the cost the vehicle, maintenance, gas and insurance costs, to those who operate the carpool. Ride-share programs can be found online through a variety of websites that specialize in matching up people with similar home and work addresses to carpool together. While ride-share programs are often geared at being green, they are also meant to help find transportation for people who do not own or operate a personal vehicle. Ride-share programs in more urban centers can also match people based on similar interests in order to promote happy ride-share services. However with a more dispersed rural population some people could be difficult to match in a ride-share. Local community groups can also coordinate ride-share programs. Ride-shares can be used to transport people on a regular scheduled basis to work or for single trips and longer distances. Should a person be visiting a relative out of town they can find people heading in the same direction as them and join the ride for a nominal fee that differs between distances and ride-shares.

**Coordinated Service**

A coordinated service is a local service agency that provides transportation to people with vehicles that are owned by the agency. Many local agencies may pool together resources to pay for the vehicles, fuel, insurance, maintenance, and personal time. Coordinated services can also include brokerages that provide transportation to their clients in order to maximize efficiency (University of Montana, 2007).

**Volunteer Services**

Volunteer systems run off of donations of resources and time. Volunteer programs are often aimed at finding transportation for the aging population or people who are
living with a disability. Volunteer programs often offer free transportation provided by either volunteers or staff paid for through funding and donations, which are meant to bring people to medical appointments or locations which can help a person remain independent (such as grocery stores). These volunteer groups offer transportation as a part of their services but typically offer many more services for aging and disabled peoples such as medical care, free clinics, social activities, meals-on-wheels, phone check-ins, and minimal help around the house when needed. Many of these volunteer services go unnoticed in the community until they are needed but many work as the community backbone for keeping up the independence, health, and well-being of the aging population.

**Voucher Programs**

Voucher programs are intended for a variety of groups such as disabled (unable to drive their own vehicle or use regular transportation) and those living in poverty whom cannot afford transportation services whether that be a personal vehicle, a bus or a taxi. A person or family that qualifies for the voucher program will be given so many ‘vouchers’ which would allow them to use buses or taxi services with no charge to themselves. In the case that the voucher is used on a taxi or with a private transportation company (provided the voucher program works with that company), the program that is usually run by either local or provincial governments would reimburse the company for the cost of the ride.

**Developing a Framework for Evaluation**
There are a variety of stakeholders involved in finding adequate and reliable transportation for the disabled population living in rural communities. The people with disabilities and mobility limitations are affected by the lack of transportation in their lives. The family and friends of these people are also affected by lack of transportation. For some it could simply mean that they are not able to see the individual as often. Others may find the person with disabilities and mobility limitations becoming more dependent on them. This is not only a time commitment on the part of anyone responsible for providing transportation, but it can also cause stress and anxiety. Many people have families of their own, or other family members such as children that need to be taken care of. These are the two groups of stakeholders that are the most at risk from lack of rural transportation options. However there are several other stakeholders that can also be affected.

While community organizations can help provide limited transportation services for occasional trips they do not normally have the resources to provide constant and frequent services. Community care organizations often provide services to elderly or disabled who need help reaching medical appointments and resources such as grocery stores that can help them maintain their independence and keep them living in their own homes or in independent living centers.

This means that we have three main categories of needs that should be addressed:

<table>
<thead>
<tr>
<th>#</th>
<th>Stakeholder</th>
<th>Interest</th>
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<tbody>
<tr>
<td>1</td>
<td>Persons with disabilities</td>
<td>Reliable transit could allow for more independence, inclusion in society, higher activity and ability to work and earn income if desired.</td>
</tr>
<tr>
<td>2</td>
<td>Families/friends of persons with disabilities</td>
<td>Less reliance on drivers in the family (might have to give up certain things in order to provide transit), families benefit financially if another person can earn income and more social inclusion.</td>
</tr>
<tr>
<td>3</td>
<td>Local Government</td>
<td>Additional active participants in society</td>
</tr>
<tr>
<td>4</td>
<td>Provincial Government</td>
<td>Additional active participants in society</td>
</tr>
<tr>
<td>5</td>
<td>Employers</td>
<td>Additional active participants in the work force</td>
</tr>
<tr>
<td>6</td>
<td>Local Community</td>
<td>Additional active participants in society</td>
</tr>
</tbody>
</table>

Table 1
1) Scheduled consistent transportation services for work/education/childcare, which occurs in routine on weekdays.
2) Less frequent transportation for medical and self-sufficiency (i.e. a grocery store) that does not need to occur on a regular scheduled basis.
3) Long distance and out of county transportation.

There is also a fourth transportation need that should not be ignored which is the need for emergency medical service transportation. However EMS transportation is a very complex need that is linked to additional infrastructure and programs such as hospitals that fall beyond the scope of this research.

Based on the information in the literature review above we can understand the importance of having available transit that is accessible to all abilities. The framework will provide a basis on which to judge the effectiveness of the current transportation options in the case study area of Grey County. A variety of criteria will help to define the parameters of the framework.

The following questions can be asked: what is the frequency, the accessibility, the segregation, cost and the demand of service?

<table>
<thead>
<tr>
<th>Frequency of Service</th>
<th>The frequency of service is how often it runs. It can influence the number of days in a week it runs and the hours during a day that it is in operation. It can also influence response time or the required booking time for guaranteed and prompt service.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility of Service</td>
<td>Accessibility of service refers to how accessible the transportation method is to a variety of different abilities.</td>
</tr>
<tr>
<td>Segregation of Service</td>
<td>The segregation of services for people with disabilities can help to determine its effectiveness. It is important to determine if the available services are a minority-based approach or a universal design based approach.</td>
</tr>
<tr>
<td>Cost of Service</td>
<td>The cost of service can be applied in two different ways. It can be the cost to operate the service that is applied to government and farmed out to the community through taxes or to a business owner who operates the service. It is also the cost to the user, often referred to as fare. Both are</td>
</tr>
</tbody>
</table>

important, as without affordability the service will not be used or funded.

**Demand of Service**

Service demand is the number of people that would use the service and would often play into the ability for the service to continue to operate. The demand for service is difficult to define and without taking first hand surveys within the community it is difficult to determine the actual level of demand. The demand can somewhat be determined by looking at existing transit options and their usage, as well as looking at precedent cases for use. Just because someone does not use an existing service does not mean they would not use one that better met their needs.

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**Table 2**

This table determines the basis on which to assess the current transit options that are available inside of Grey County. First the case study will examine the properties of the county and existing transportation options. After looking at Grey County and its transportation system, and after its needs have been determined, the framework can be applied to understand which gaps in service currently exist.
Case Study

The following is a case study performed within Grey County that will look at geography, demographic, current transportation services, and community programs to determine the transportation gaps for the disabled population in Grey County and possible solutions that could be applied. As noted above, there are three main service needs that have to be met. These three service needs help to better define the gap between the transportation that is needed and what currently exists.

<table>
<thead>
<tr>
<th></th>
<th>Scheduled consistent transportation services for work/education/childcare, which occurs in routine on weekdays.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Less frequent transportation for medical and self-sufficiency (i.e. a grocery store) that does not need to occur on a regular scheduled basis.</td>
</tr>
<tr>
<td>3</td>
<td>Long distance and out of county transportation issues.</td>
</tr>
</tbody>
</table>

Table 3

Context

The county of Grey will be the primary focus of research with reference to precedent studies outside of the county. Grey County is a rural county that is located in South-western Ontario. The most well-known town within the county is the city of Owen Sound, but the county also includes 25 other small rural communities broken down into 7 townships and municipalities. They are as follows: City of Owen Sound, Township of Georgian Bluffs, Municipality of Meaford, Town of the Blue Mountains, Township of Chattsworth, Municipality of Grey-Highlands, Municipality of West Grey, Town of Hanover, and Township of Southgate. As of 2011 the population census across the county stood at 92,568 with over 21,000 living inside of the City of Owen Sound.
The city of Owen Sound is the only city within the entire Grey County that offers public transportation. Its transportation system is composed of only four bus routes, which run Monday to Friday 6:30am until 6:00pm and Saturdays 9:00am until 4:00pm with no bus services running on Sundays. The buses run every 30 minutes.

The city of Owen Sound however does offer a specialized transit service that is geared towards individuals with physical disabilities that are too restricted to use the city’s public transportation system. The Specialized Transit Service follows the same hours as the regular bus service and offers door to door pick up for residents. The cost for the Specialized Transit Service is the same as the fee required for the regular bus system. In order to use the system an application must be submitted after which the person with a disability will fall into one of five use categories. The five categories for use are as follows:

<table>
<thead>
<tr>
<th>#</th>
<th>Use Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unlimited Use</td>
<td>Unrestricted, full access to the specialized transportation service.</td>
</tr>
<tr>
<td>2</td>
<td>Attendant Required</td>
<td>Similar to unlimited use, but an attendant is required to accompany the individual for the safety of the passenger and/or other passengers.</td>
</tr>
<tr>
<td>3</td>
<td>Temporary Service</td>
<td>Available for people with temporary disabilities that cannot use regular transportation. The temporary service can be given for a specific amount of time, or indefinitely until the service is no longer needed depending on the individual case.</td>
</tr>
</tbody>
</table>
Winter Use
Seasonal use from December 1st until April 30th. Intended for people whose ability to use the regular transportation system would be affected by inclement weather and temperatures.

Visitor Use
A block of predetermined time that encompasses a person’s visit to the area. The person must have a disability that would prevent them from using the regular transportation system.

Table 4

All transportation bookings need to be made two days beforehand. This form of transportation system does not generate any form of income for the community, as the cost of running the system far outweighs the income (regular bus fare). Yet it is an essential system that allows people with disabilities to gain independence in moving around their own city.

This is a minority group approach to planning for people with disabilities. It sees disabilities as being a specialty group, and offers a segregated transportation system for people unable to use regular transportation options. While in many cases the universal design approach is preferred, as it does not segregate peoples with disabilities, this option allows for both. All buses that function on the normal route are equipped to handle persons with a disability, however the specialized transit service is available for those who are unable to understand the system, or are unable to access bus stops (too far from home, can’t access
during winter months). For these reasons, this system is the best of both approaches as it combines them and gives the user the choice of system.

A charity organization called SMART operates a transportation system called Saugeen Mobility and Regional Transit, which offers transportation services for people in 8 townships and municipalities in Grey County, and includes its neighboring County of Bruce. Four of the townships are within Grey County and they are the following: Chatsworth, Hanover, Southgate, and West Grey. In addition, they also offer services to people in Bruce County living in the following townships: Arran-Elderslie, Brockton, Huron Kinloss, Kincardine, and Saugeen Shores. Service is provided to residents of the townships that are not able to use regular transportation options because of mental or physical disabilities. The transportation service is offered to people who are eligible regardless of temporary or permanent disability.

The Municipality of Meaford also provides transportation for people who have a physical disability or mobility limitations associated with age. The services are offered through a company called The Georgian Handi-Van, which provides people with transportation for any needs including work, appointments, shopping, recreation, and socialization. The service is offered inside the Municipality of Meaford and offers transportation into the bordering City of Owen Sound and Town of the Blue Mountains. There are not any fees or expenses associated with using the service.

Home and Community Support Services offer transportation assistance to those living in both Grey County and the neighboring county of Bruce. They offer transportation to people to reach medical appointments and shopping. There is a flat fee of $10.00 for any trip less than 20km and added charges of $0.45/km for trips longer than 20km. The service is run by volunteers and on occasion paid staff (usually government funded student positions).

Beaver Valley Outreach (BVO) provides transportation to residents of the Blue Mountains for medical (including dental), legal and parenting appointments for a fee of $5.00. Any resident that is not covered by Home & Community Support or other agencies is eligible to use the service. These services however are not available for daily use for people trying to reach work.
For people wishing to travel longer distances Greyhound bus lines offer services inside Owen Sound, Hanover, Meaford, and the Blue Mountains (Thornbury). Greyhound buses offer transportation inside much of Canada and some bus lines may even travel cross border into the United States of America. The buses are equipped with wheelchair lifts for people in wheelchairs and those with scooters used for mobility are allowed to travel with them in the under storage without any added costs of extra baggage. Those who require a personal attendant due to medical reasons are able to do so free of charge (personal attendant rides free), if those requiring the attendant are able to show a doctor’s note. Greyhound bus line also offers support with sight and hearing impairments as well as those with mental and learning disorders including dementia.

The other communities within Grey County do not offer a public transportation system. This means that the people living in surrounding communities are required to be completely dependent on the use of a personal vehicle (or a family member or friend with a personal vehicle). There are several volunteer groups within Grey County, which helps aide the aging and disabled population by keeping them healthy and as independent as possible.

**Expenses**

The fees for using the Saugeen Mobility and Regional Transit services are very similar to the way that a taxi service is charged, only at a slightly lower cost. There is a minimum charge of $7.50, with fees starting at $2.00 for a pick-up and charging $0.50 per kilometer. Area trips are charged at $18.00 an hour. Clients are required to register. The service only offers transportation for people with disabilities, so that those without disabilities who are also transportation disadvantaged, would not be able to use this system, and would still not have access to proper transportation.

Based off of the average commute time for the 2006 Census (2011 census reduced questions) the average commute in Ontario was 7.6 km. This number is most likely larger in rural communities where things
are more dispersed, but this is the number that will be used. An individual must travel to and from work. Based off the costs of the Saugeen Mobility and Regional Transit Services someone using this system would be paying $5.80 each way; however because the minimum cost per trip is $7.50, that is the charge they would be required to pay, costing them at least $15.00 a day to use this as transportation to and from work. This number would only increase if people had larger commutes or had to drop children off at daycare (school-aged children would most likely not need a ride). This adds up to a weekly charge of $75 or roughly $3750 a year, provided they are not travelling farther than the base charge per trip (11 km would be paid for in the minimum fee). This number is comparable to the price of owning and operating a personal vehicle and may in fact be cheaper depending on the number of miles, fuel efficiency, insurance type, and size of car. However this number does not include any trips outside of work, such as trips to a grocery store, mall, a friend’s house, or even trips out of town for vacation. Someone travelling even 30 kilometers to work is looking at an expense of $8500 a year not including any additional trips for groceries. It is very difficult to compare the prices when a services like these charge per trip, whereas car ownership has overhead charges that do not fluctuate in addition to fluctuating costs of gas and extra maintenance when a car travels farther distances.

The Saugeen Mobility and Regional Transit system only offers service in three townships in Grey County in addition to the Own Sound service, leaving four municipalities and townships without transportation options. The town of Blue Mountain, the Township of Georgian Bluffs, the Municipality of Meaford and the Municipality of Grey Highlands. In addition, people living without disabilities residing in Grey County do not have access to a transportation system/service with the exception of those living in Owen Sound.

Eligible clients of Ontario Works (an Ontario based program offering social assistance to those who do not earn or have the ability to earn a living wage in order to support themselves and their families) may also be able to have transportation costs covered when they are associated with travel to and from medical appointments. However, often the only appointments covered are those required by Ontario Works to remain eligible for the Ontario Works program.
The Ontario Disability Support Program can also cover costs associated with travelling to and from medical appointments when a household spends more than $15 a month on transportation used to travel to and from medical appointments, or are frequent users of emergency medical transportation. This can be a large cost for people with disabilities or mobility limitation who need to travel out of town in order to visit specialists who are more capable of helping and aiding with certain types of disabilities such as physical and mental limitations.

**The Community Effort**

The community plays a large role in the lives of the disabled and aging population within Grey County. With limited options for public transportation, community groups find themselves being the major supporter for services for disadvantaged groups in the region. The community groups and organizations in the area tend to have areas in which they specialize but one of the primary concerns for all of the community groups is health and medical care. These organizations are more than willing (when able) to provide transportation to medical appointments and care.

Not all of the community groups that provide transportation and other services to the disabled and aging population are organizations or groups that market themselves as such. Organizations such as Eastern Star, Royal Legion Branches, Lions Clubs and composite Lodge branches were not designed to provide transportation to people with disabilities but this role is often taken on by these organizations themselves or by the relationships and affiliations that are formed through the organization. Whether the transportation is simply provided to their own event or additional transportation is provided outside of the organized meetings, this is another way in which transportation is offered throughout Grey County.

**Institutional Cooperation**

School aged children with disabilities need equal access to education and education opportunities as children living without disabilities. The school board in Grey County offers transportation that is versatile for those living with disabilities. Children with a disability that are able to ride the bus with fellow classmates do so. However some children are unable to access and use a regular school bus as they are unable to board due
to mobility issues, in which case a special handi-cap bus is available to bring these students to class, which also applies to students with disabilities whose distance to school would not normally require a school bus (walkers). This means that any child (kindergarten through to grade twelve) will be provided with adequate and reliable transportation to and from school should they require it based on physical and mental ability. The only disadvantage to the school board’s transportation is that the children/teens with disabilities are segregated from their peers in order to provide them with transportation. While the advantage of being able to obtain education should not be over looked, the social and mental implications for segregation can be devastating for some people. Regular school buses simply are not accessible and there has been an unfortunate stigma created around ‘the short bus’.

The Corporate Role
There are some transportation companies in Grey County, which do not operate simply as just a taxi company, but instead they offer several services which include taxi services (long and short distance), courier services, and airport shuttles and limos. In order for a transportation business to produce a profit they are required to offer a variety of services. Taxi routes in rural communities such as Grey County are often much more expensive as they have farther distances to drive and when the taxi leaves a city boundary, rates are forced up as the taxi is unable to make several services in an area; you are therefore paying for the taxi’s drive back into its service area despite not being in the car. Still, private transportation services offer an option for rural transportation. Albeit expensive, it is an option nonetheless.

The Blue Mountain Resort, which offers skiing and provides a winter getaway to Canadians in the town of Blue Mountains, also provides a transportation shuttle from the Greater Toronto Region to the resort through the winter months (December-April).
**Evaluation**

**Applying the Framework**

As determined during the literature review there are three types of transport needs and they are as follows:

1) Scheduled consistent transportation services for work/education/childcare, which occurs in routine on weekdays.
2) Less frequent transportation for medical and self-sufficiency (i.e. a grocery store) that does not need to occur on a regular scheduled basis.
3) Long distance and out of county transportation.

The framework will determine which transportation needs are met and which needs, if any, are unfulfilled in Grey County.

<table>
<thead>
<tr>
<th>Frequency of Service</th>
<th>With the exception of the bus system in Owen Sound, none of the other transportation options offer scheduled regular service. Owen Sound’s service runs weekdays and Saturdays during normal working hours and early evenings. The other services are available mostly on weekdays and during regular business hours. Response time is dependent on the area that is lived in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility of Service</td>
<td>Owen Sound’s bus system offers full accessible and specialized transportation systems if regular accessible methods are not extreme enough. There are no services that are offered that are not self-proclaimed as accessible to persons with a disability. The accessibility is typically deemed for mobility disabilities.</td>
</tr>
<tr>
<td>Segregation of Service</td>
<td>Owen Sound’s bus system offers full accessible and specialized transportation systems if regular accessible methods are not extreme enough which offers the best of both the universal and the minority group approach. The other options for service throughout Grey County are segregated services.</td>
</tr>
<tr>
<td>Cost of Service</td>
<td>The cost of service for transportation systems in Grey County range from moderate (fair prices) or above average prices. These costs are not over the top but could produce difficulty for those in low-income margins. The</td>
</tr>
</tbody>
</table>
Demand of Service

The demand of service is difficult to define. However the presence of several different accessible transportation options and services that are specifically designed to address this issue within Grey County shows evidence that a demand for transit exists.

Evaluating Grey Counties Transportation

After looking at the framework it can be assessed that the second need for less frequent transportation for medical and self-sufficiency that does not need to occur on a regular scheduled basis is met with varying ease throughout the county. Some gaps do exist in more rural areas, but an increase in price for the service will bring them the farther distance. Long distance and out of county transportation is also offered. The ease of long distance travel and the cost will vary depending on the location within the county often affiliated with density and demand in the area. The major gap that remains is for scheduled consistent transportation services with two exceptions. The first is inside of Owen Sound where a routine bus is available, and the second is for school aged children with disabilities who are supplied with accessible transportation regardless of location by the local school district and bus line.

Grey County offers several different forms of transportation for people with disabilities. The programs and services that are available vary depending on what part of the county an individual lives in. Throughout the literature review we were able to understand the importance of finding transportation options and what living without adequate transportation can mean. It has negative health effects, both social and physical and restricts a person’s independence and ability to live a high quality life. The Case Study of Grey County looked at the county and its different options for transportation. There are several transportation options across the county and depending on the part of the county the individual lives in, the ease and ability to access all their needs will vary. One alarming note about most of the resources available was that they ONLY applied to

<table>
<thead>
<tr>
<th>Table 5</th>
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<tbody>
<tr>
<td>cost to government is only applicable in the case of Owen Sound and its bus system.</td>
</tr>
<tr>
<td>Demand of Service</td>
</tr>
</tbody>
</table>
the aging population and people with disabilities, leaving a gap for people without disabilities who also lacked access to a personal vehicle.

**Where to Next? – Possible Courses of Action**

Since the major need gap is for scheduled, routine service there are several courses of actions that could be taken. The following table will look at each method of transportation within Grey County and determine if it is a suitable method for providing for the current transportation gap that exists.

<table>
<thead>
<tr>
<th>Community Care Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> More specifically volunteer operations. In many communities these exist, and some are even headed by governments. It can allow for the aging population and people with disabilities to request transportation to services such as medical appointments or grocery stores. The organizations are often volunteer run and operated with very few if any permanent, paid staff.</td>
</tr>
<tr>
<td><strong>Debate:</strong> An example of this type of organization can be seen through Community Care Durham, which is a charitable organization that provides services to people with physical, mental and aging disabilities to remain in their homes and to preserve their independence for as long as possible. The services they offer vary from meals on wheels which provides healthy food to those who are unable to reach it, as well as several support services such as providing transportation to medical appointments, and light housekeeping that allow individuals to remain independent and to live outside of assisted care facilities for as long as possible. The South West Community Care Access Center which services Grey County also provides services to people living with disabilities (mainly the aging population) by offering them a variety of options for care including assisted living as well as providing transportation in appropriate cases. These programs do not offer routine daily transportation to places such as work, education and childcare. Instead these programs are intended to bring older and disabled community members to places such as medical appointments or grocery stores in order to help them remain independent as much and as long as possible.</td>
</tr>
<tr>
<td><strong>Verdict:</strong> Not a good option as it does not offer routine daily transportation.</td>
</tr>
</tbody>
</table>
## Ride Share Programs

**Description:** There are several ride-share programs that are available online, which allow people to enter their current location along with the location of their work. It matches people up with similar schedules to allow them to commute to work together. While the ride-share programs are aimed at being environmentally and cost effective they can also help to provide transportation for those who do not currently have any. Ride-share programs exist across Ontario; however there are currently no ride-share programs that have a specific focus on Grey County, or people with disabilities.

**Debate:** In Rural communities this can be difficult to find a person with a similar start and end goal, but it is an option that many people with disabilities should look into as an alternative when public transportation is not available or does not service the route that they need.

Ride-share programs are not free; they do have a minimal cost that has the passenger sharing costs of gas/insurance. However the cost is nominal in terms of what transportation costs would normally be for operating and owning a personal vehicle.

**Verdict:** While this is a viable option for many people to use, and should be encouraged in the workplace, it is not practical to assume everyone will be able to be matched.

## Wider Range Specialized Transportation

**Description:** These services have the opportunity to be expanded and to provide better access to individuals with a disability.

**Debate:** While it offers a less ideal minority design approach, we must also realize that a universal design approach is not possible in all situations. A bus cannot stop in front of every person’s house and every person’s destination(s). In the end the specialized transit service (along with a universal accessibility for people with less severe disabilities that still have the ability to use regular transit services with a few minor accessibility changes) is the best answer to providing access to people with disabilities. The buses require a two day booking for transportation, yet most people will often find themselves in need of certain things with less warning. This system could run similarly to the Specialized Transportation system in Owen Sound, only on a countywide system. It would allow for any person who qualifies within the county to receive transportation to and from their
needed locations. This system could be both public and/or privatized.

**Verdict:** Costly, but does provide the necessary services in the most practical way.

### Privatized Public Transportation

**Description:** A service that would be owned and operated by a non-governmental entity for the purpose of income. The service in a rural location such as Grey County would need to be subsidized.

**Debate:** The public would not have any control over the transportation system and the fares would run higher than most public transportation systems. Because Grey County has such a highly dispersed population with little demand for a public transportation system a whole system would not be economically feasible. However it would also be possible to privatize a county wide specialized transportation system. This does not require the bus to run at regular intervals, but it could get costly, which prices would be passed onto the clients using the system. Mainly those who use the system regularly or those who work and have medical appointments out of town or county where additional fees would apply.

**Verdict:** Not a feasible project, for a dependable route or for cost.

### Vanpool Services

**Description:** Vanpool services offer transportation to people who live in a similar area and needed transportation to a common location or workplace(s). The vanpool would pick each person up at their respective starting points and deliver them to their work or place of education then return at the end of the day to return them to their original locations.

**Debate:** Systems like this work best when everyone is going to one location (or two locations). It works much in the way that a school bus does, only for adults. In rural communities the distance travelled would be far and many people may not work in a similar workplace. In an industry town where everyone works at a car manufacturing plant or a fishery a system like this might work, but it would be the role of the employer to provide the transportation. In Grey County large employers such as Blue Mountain Resort could be responsible for setting up vanpools for their workers. However this still provides an issue for those who do not work for the locations serviced.
Verdict: Not a viable option as population and workplaces are both highly dispersed.

Table 6

Logic Model

The logic model is not part of a project proposal, instead it is meant as a tool to outline in one place the outcomes associated with the final goal of having full accessibility in Grey County and some of the steps that would need to be taken in order to make that happen. While a countywide transportation system would be ideal across Grey County, at this time it is a costly solution that goes beyond the scope and premise of the
planned research.

### Ultimate Goal

- All transportation needs for people living with disabilities in the rural community of Grey County

### Intermediate Outcomes

- Decreased Poverty levels amongst disabled families
- Increase in mental health
- Increase in financial and social security
- Increase in physical health

### Immediate Outcomes

- Ability to reach employment and education
- Ability to reach social appointments
- Ability to reach medical appointments

### Outputs

- Collaborative agreements
- Transit Services
- Funding for transit services
- Awareness of the need for rural access

### Activities

- Community outreach / Public meetings
- Apply for funding
- Advocate for rural access
- Collaborate with current transit services and volunteer groups

### Inputs

- Municipal, provincial and federal policy
- Funding sources
- Advocacy groups
- Stakeholder organizations/groups
- Effected Individuals

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Table 7

**Ultimate Goal**

The ultimate goal is to provide transportation services to all people living in the rural community of Grey County, including those with disabilities and mobility limitations. All of their transportation needs should be met without discrimination as to the destination type (work, school, medical, social, etc.), without discrimination as to the type of disability or ability and should be met without stress and unreasonable difficulty.

**Intermediate Outcomes**
For those who are able to join the workforce and earn an income, there will be a variety of positive benefits and outcomes that will follow. These outcomes include a decrease in poverty levels amongst the disabled population, as well as higher social and financial security that will lead to less stress and higher mental health. An increase in social interactions would mean an increase in mental health conditions.

Immediate Outcomes

For the retired group of seniors the ability to have adequate and reliable transportation would not be an outcome, as they have served their time in the workforce, but for the younger disability population this means they have the opportunity to join the workforce and earn an income. This gives them the ability to reach and interact in more social activities.

Reliable transportation can also improve the use and reach of health care professionals, both general practitioners and specialists, which can include routine care and specialty care or treatments.

Outputs

The outputs include accessible transportation options, which would vary depending on the outcomes of community outreach and available local inputs. The use of a community care organization would be vital in meeting the second service gap where people do not need scheduled transportation to work, but need transportation to vital services such as food and medical care. There would also have to be a primary service for people with disabilities and mobility limitations, which would fill the first service gap of regular, routine service for people who need to reach employment, education and childcare facilities. This could be reached through a countywide transportation service, a vanpool, privatized transportation or ride-share programs.

Activities

Activities such as community outreach would be needed in order to establish what kinds of transportation would be necessary and preferred for the individuals living in the area, as well as the capabilities of the local government and community. Public meetings would be held that could be to take inventory needs and to assess the type of transportation that would be most beneficial.
The inventory of existing transportation services in the area would be beneficial so that where possible new services do not need to be created from the ground up, but instead the possibility of expanding or altering already existing services that could help meet the needs of the disabled population (even if only in the short-term while a long term solution was being produced).

The need to identify service gaps is important so that the type of service that is needed and where the current system does not meet the communities’ needs can be better understood. Above, the service needs were already defined as: 1) regular scheduled service to locations such as work, education and childcare, and as 2) irregular service to locations such as food and medical appointments. These service needs help us to understand what is needed of the service and the local context helps us to see that the only location of transit systems is within the city of Owen Sound, meaning that the largest service gap would be found in Grey County outside the city of Owen Sound and servicing the two needs identified above.

**Inputs**

There are several inputs, which are important in the development of a more accessible Grey County. They include designing, implementing and revising policy at all three levels of government: federal, provincial and local. There will also be a need for funding sources, advocacy groups that have a focus on disability rights, rural transportation and/or accessibility and equality. The inputs also include organizations and groups that focus on people with disabilities and their transportation needs, as well as the friends and families of people with disabilities.

**Logic Model Conclusion**

Depending on the solutions arrived at throughout the community outreach process and through understanding the community’s needs it could be one large transportation system or it could be the development of several smaller ones. Since the Grey County covers such a large area of land with a highly dispersed population, introducing a fixed route/schedule system into the area would not be economically viable. The demand for such a system does not exist.

Ride-share programs run by the local communities and governments could be both economically viable and substantially reliable for the first transportation gap, which
requires regular scheduled and consistent transportation. Such ride-share programs would allow people travelling in similar directions to carpool together. A local community or government funded program would also offer a financial break to those actually providing the ride-share, and would also help to provide the financial component to those who qualify for assistance. However some gaps in rural areas may be found where some people cannot be matched with a ride-share.

Community organizations should be a primary output in servicing the needs in the second category, which was the need to reach medical appointments, both in and out of town, but do not have the need to reach work locations on a regular scheduled and consistent basis. For many people community organizations may not be responsible for all of the transportation need of this group and family members and friends are still an option for certain trips or appointments. The community organizations would be designed to offer help should it be needed, but also allows for the continued support of family and friends when they are willing and able.

A countywide specialized transportation system would be the most beneficial to the most amount of people within the disabled community. The cost would be substantial and it follows the less desirable minority group approach, but on such a large area with low density a universal approach is not practical.

Further Research

There are several transportation options across the county and depending on the part of the county the individual lives in, the ease and ability to access all their needs will vary. One alarming note about most of the resources available was that they ONLY applied to the aging population and people with disabilities.

The inability to own a car will apply mostly to people who live at or below the poverty line or who are under the legal driving age. Many of these people are financially unable to afford a personal vehicle, whether that is multiple family vehicles (which can hinder a secondary spouse from being able to drive to work) or lack of a vehicle all together. This group also includes teenagers who often cannot financially afford a personal vehicle, yet need access to after school jobs, sports, and socialization which can affect their ability to attend post-secondary school both through missing out on sports and
other events which could garner a scholarship or missing out on the ability work which could pay for tuition. This is a real and serious issue, especially for families who fall just above the poverty line. These families often fall into the same category as those below and cannot afford a personal vehicle, yet they live above the means to get social assistance that may help off-set or provide assistance with the costs of transportation. This produced an unforeseen issue that people who are living without a disability but do not own a personal vehicle are at a disadvantage transportation wise. Many community organizations and services will cater to specific groups but often leave out others. In this case those without a disability find themselves without the transportation options.

Further research could also be done towards the fourth transportation need that was left out of the framework, which is the need for emergency medical service transportation. EMS transportation is linked to healthcare and another complex set of standards that need to be addressed. EMS is very important, not just to people with disabilities but to everybody living in rural and urban communities. Transportation to medical assistance in emergencies is dependent on time, and when living in low density areas issues may arise.

**Conclusion**

Rural transportation and disabilities accessibility are two areas of study that get a fair share of attention. However, the two areas are not very often combined. The idea that people with disabilities and mobility limitations might be living in rural transportation deserts doesn’t seem to be the spotlight of much research. These people however exist, and the issue for those living in these situations is very real. After looking through the previous literature it became apparent that transportation is a key to independence, which is a leading factor in mental health, financial security and quality of life.

It is part of the responsibility of the local and provincial governments to ensure that its citizens are living lives that are both fulfilling and as accessible as possible. When people are unable to reach medical help, or to retain independence they can often cost the government much more in terms of physical costs in added deteriorating health than it would cost to be proactive in addressing accessibility that could prevent these added costs
later on. It could also put many people back into the position to work, which not only benefits the government in terms of less disability pay, but it also benefits the person who is now able to work; to be self-sufficient and self-reliable. Providing proper access to people living in rural communities is extremely important and through the use of collaborative agreement, advocacy, community involvement, policy changes, funding aides and initiatives, it is possible for a service to be put in place that would be able to provide transportation services to people regardless of ability, location or transit need.
Definitions

**Active Transportation**: Transportation that requires physical human power to travel between points (walking, cycling, skateboarding, etc.).

**Barriers**: An obstacle-physical or otherwise- that prevents movement and/or accessibility.

**Disability**: Individuals who have either a temporary or permanent disability both physical and/or mental, which affects their mobility and their ability to interact with the world, as society deems normal.

**Emergency Medical Services (EMS)**: Urgent medical services to prevent/treat an occurring problem or illness or to provide transportation to conclusive care and treatment.

**Mobility Limitation**: An individual whose participation in day-to-day activities is limited based on a condition or health problem.

**Public Transportation**: Transportation that is offered to the public and operates on a fixed schedule, route, and fee (buses, trains, etc.).

**Rural Community**: A community with a low population density.

**Sheltered Workshop**: A supervised place of work for adults with disabilities, both physical and mental.

**Transportation Disadvantaged**: Any individual who does not have access to a personal vehicle and/or who are not able to operate a personal vehicle themselves.
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Images and Graphics


Image taken from <http://www.grey.ca/services/local-municipalities/?i=7365> on October 28th, 2015


Image Taken from <https://www.owensound.ca/city-transit/specialized-transit-service> on March 7th, 2016

Image Taken from http://www.saugeentimes.com/57%20x/Feature%20Museum%20fundraiser%20at%20the%20Port%20Elgin%20Beach%20Aug%2024%202014/One%20page%20Touch%20a%20Truck%20aug%2024%202014/Templa...> on March 7th, 2016