Public Transportation and Health

Healthy transportation systems enable people to travel to the places they want and need to go in the healthiest way possible. A healthy transportation network includes robust and convenient public transit widely used by the whole community, accruing health benefits across the whole population. Public transit reduces inequities and is good for public health.

Public transit influences health through:

- Increased physical activity
- Improved mental health
- Enhanced social inclusion
- Prevention of injuries
- Protection from respiratory and cardiovascular illness associated with air quality
- Increased access to opportunities and services, including health care

Current demographic (e.g. aging population), environmental (e.g. climate change) and economic trends (e.g. rising fuel prices) increase the importance of public transit and associated health benefits. Accessible and affordable public transit is essential for those without other forms of transportation. A health equity impact assessment would better inform any major transit changes considered.

Increased Physical Activity

Accessible public transit is associated with higher physical activity levels. Promoting use of public transit is an important strategy to increase routine physical activity. Users of public transit walk 8 to 30 minutes more daily compared to non-transit users (Rissel et. al., 2012). This time spent walking means that people who use transit are more likely to meet the Canadian physical activity guidelines of 150 minutes per week and achieve the associated health benefits. Physical activity reduces risk of chronic diseases, overweight/obesity, premature death, and increases fitness and mental well-being (CSEP, 2011).

Improved Mental Health

Research consistently supports the facts that physical activity benefits mental health. Physical activity enhances self-confidence and self-esteem. Incorporating regular physical activity can decrease feelings of depression and anxiety. Improved sleep, enhanced moods, and increased energy from regular physical activity support stress-management, treatment for mood disorders and well-being.

Enhanced social inclusion

Robust public transit fosters social interactions and increases positive community connections. There is a strong association between sense of belonging to a community and mental health. Social inclusion boosts immune system function, protects from harmful effects of stress and helps to prevent loneliness and depression. Public transit can also increase inclusivity and participation in the fundamental aspects of society. Robust public transit equalizes opportunities, increases access to health and social services, and reduces the social stigma sometimes associated with lack of car ownership.

Prevention of Injuries

Injuries are consistently the leading cause of death among Canadians 1-35 years of age, with motor vehicle crashes a top cause (Statistics Canada, 2015). Traffic injuries tend to decrease as transit ridership increases in a community. For example, "cities where residents average more than 50 annual transit trips have about half the

average traffic fatality rates as cities where residents average fewer than 20 annual transit trips, making public transportation a cost-effective traffic safety strategy" (American Public Transportation Association, 2016).

Protection from respiratory and cardiovascular illness associated with air quality
Motor vehicle air pollution is estimated to cause a similar number of premature deaths as traffic crashes (Murray et al. 1996). Poor air quality can impact everyone, but people with pre-existing respiratory conditions such as asthma or chronic lung disease are most affected. Public transit tends to produce less pollution per passenger-mile compared to private motorized transport, particularly electric-powered and newer diesel buses (ICF 2008). Sustainable travel infrastructure, including public transit, is a climate change mitigation opportunity that has been shown to decrease air pollution and greenhouse gas emissions (Maizlish et al. 2013).

Increased access to opportunities and services, including health care
Those disadvantaged by low-income in Winnipeg face greater health burdens and have more transportation barriers to access the health care services that they need. Transportation barriers can cause delays or prevent access to health care services or medication. These missed opportunities for timely treatment can lead to worse health outcomes that require more extensive and expensive health care services such as hospitalizations (Syed et. al., 2013). Public transit is a fundamental way that people living in households without access to cars routinely reach health services for preventative and early treatment.

Health is not only supported through health care services but created through access to the conditions that support health. Accessible and affordable public transit increases access to recreation, stores, healthy affordable food, childcare settings, and spiritual space. Increasing access to affordable public transit can help reduce barriers experienced by people living in poverty because it is a means to reach employment and educational opportunities (Titheridge et al. 2014). Routes of public transit determine what employment, education, food retail and social services opportunities people can access in timely and affordable ways (Columbia/Boone County Department of Public Health & Human Services, 2012). Public transit is particularly important for seniors, youth, and people with physical and cognitive disabilities to be engaged and included in the community.

Summary
Equity[1] is recognized as a value in the Winnipeg Regional Health Authority's strategic plan (2016-2021). Convenient, affordable, and accessible public transportation infrastructure and services were identified in the Health for All Building Winnipeg's Health Equity Action Plan as one of many actions needed to close unnecessary health gaps (WRHA, 2013, pg. 55-56). Users of public transit and the general population all realize health benefits of a healthy transportation network.

Decisions about public transit made now will impact the public's health and the sustainability of our health care system into the future. Investment in public transit is an investment in health.

[1] Health Equity means that all people can reach their full health potential and should not be disadvantaged from attaining it because of social and economic status, social class, racism, ethnicity, religion, age, disability, gender, gender identity, sexual orientation or other socially determined circumstance.

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