RECOMMENDATION:

That staff be directed to provide a report to the Board of Health detailing options for an active community pilot project, which would include developing a methodology to measure the tangible health benefits.

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Medical Officer of Health
Public Health Services

EXECUTIVE SUMMARY:

The ways our cities and communities are built greatly affect our health and wellbeing. Neighbourhood design influences physical activity levels, weights, air quality, safety, and mental and social health, among others. Gil Penalosa, Executive Director of Walk & Bike for Life, will be demonstrating this connection. He encourages people to support and utilize mixed land use and urban design principles that facilitate healthy active living, thereby increasing the quality of life for Hamiltonians. Two developers will be speaking to show that implementing urban design principals in residential and commercial areas is possible and has been done successfully. The policy sub-committee of Hamilton Partners for Healthy Weights (Hamilton’s community obesity committee) would like the opportunity to report back to the Board of Health with various possibilities for an active community pilot project that will lead to healthier lives for residents in the City of Hamilton.
BACKGROUND:

Building and designing a community following the planning principles described under “Analysis/Rationale” on page 4, can increase how much people within the community walk, cycle, and use public transport. This will decrease the dependence on and use of cars for transportation. These changes can result in:

- An increase in **physical activity**
- An improvement in **air quality**
- A decrease in **motor vehicle accidents and injuries**
- An increase in a **sense of community**
- **Economic benefits.**

Physical Activity

Physical activity has many benefits including decreasing the risk of heart disease, diabetes, cancer, and obesity\(^1\). Recent objective data show that 91% of children and youth are not active enough to achieve optimal health.\(^2\) Our built environments can either facilitate or hinder our ability to incorporate physical activity into our day whether for leisure or utilitarian purposes, such as connected sidewalks, paths, and purposeful destinations.

Overweight and obesity have been rising at an alarming rate worldwide. In the adult population (18+ years) of Hamilton, 35% are overweight and 18% are obese.\(^3\) While obesity levels cannot be solely explained by our built environment, we do know that each additional hour spent in a car per day leads to a 6% increase in the likelihood of obesity, while each kilometre walked per day translates to a 4.8% reduction in the odds of obesity.\(^4\) These alarming rates of overweight and obesity spurred the creation of the Hamilton community obesity strategy: Hamilton Partners for Healthy Weights, a coalition of key community and city stakeholders supported by Public Health Services.

There are many workplace benefits associated with increased physical activity including reduced absenteeism, reduced short term disability days, reduced employee turnover, as well as improved employee satisfaction and work productivity.\(^5\)

Air Quality

Community design that makes it difficult to walk, cycle or use public transportation increases our dependence on cars. The increase in automobile usage has increased smog. Smog is linked to respiratory conditions such as asthma, cardiovascular disease, and more.

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\(^2\) Canadian Lifestyle and Fitness Research Institute, Canadian Children National CANPLAY, 2005-06

\(^3\) Caution needs to be used when looking at this data, as self reported BMI tends to be significantly lower than actual levels.

\(^4\) Canadian Community Health Survey, cycle 3.1, 2005


lung cancer, and birth defects. In 2005, there were 2,840 emergency visits, 810 hospital admissions, and 290 premature deaths in Hamilton due to poor air quality, and these numbers are projected to rise.\(^6\) Living close to a major road can reduce life expectancy by as much as 2.5 years due to higher levels of emitted traffic pollutants.\(^7\)

**Motor vehicle accidents and injuries**

Automobile injury and death rates in Hamilton are disturbing. In 2006, there were 1,638 injuries as a result of motor vehicle collisions and 22 fatal collisions in Hamilton.\(^8\) Pedestrians and cyclists are at risk as well (see Figure 1 below).

<table>
<thead>
<tr>
<th>Injury</th>
<th>Fatality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>227</td>
</tr>
<tr>
<td>Cyclist</td>
<td>132</td>
</tr>
</tbody>
</table>

Adapted from the City of Hamilton Public Works Collision Report (2005-2006).

**Sense of community**

Poorly designed communities will often separate homes from schools, workplaces and retail centres by relatively large distances increasing the dependence on commuting. Commuters spend 3 to 4 times more hours driving than individuals living in well planned, dense communities.\(^9\) More time in a car means less time for family and friends and a decreased sense of community. This can lead to social isolation and an increased risk of death, coronary artery disease and depression.\(^10\) About 7.9% of Hamilton residents over the age of 12 years are at probable risk for major depression. This proportion is higher than the provincial average (5.9%).\(^11\)

**Economic benefits**

Active communities have also been demonstrated to attract tourism.\(^12\) Compact, pedestrian friendly neighbourhoods increase profits among local businesses as people are more likely to shop in local stores when walking through these communities. This in turn increases sales tax revenues.\(^13\) Active communities attract tourism.\(^14\) Vancouver is a city renowned for being supportive of healthy active lifestyles. In 2005, Vancouver attracted 8,604,870 visitors globally with a total visitor spending of $4,317,129,536.\(^15\) $620,585,161 of that was spent on recreation, entertainment, and public transportation.\(^16\) Hamilton, by comparison had a total of 3,295,099 visitors in 2005 with an economic impact of $132,000,000.\(^17\)

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\(^6\) Illness Cost of Air Pollution – Regional Data for Hamilton-Wentworth Regional Municipality Source: Ontario Medical Association
\(^9\) Sierra Club (2004), Highway Health Hazards www.sirraclub.org/sprawl
\(^11\) Statistics Canada, Canadian Community Health Survey (CCHS) 2.1, 2003
\(^12\) Bicycle Touring in Vermont and Vermont’s Scenic Byways Program, Bruce Burgess for the Vermont Agency of Transportation, 1995.
\(^13\) The Economic Benefits of Walkable Communities.
\(^14\) Bicycle Touring in Vermont and Vermont’s Scenic Byways Program, Bruce Burgess for the Vermont Agency of Transportation, 1995.
ANALYSIS/RATIONALE:
Healthy, active communities are neighbourhoods that facilitate active transportation such as walking and cycling, and include easily accessible public transportation for both leisure and utilitarian purposes. Studies have shown that 82% of Canadians would like to walk more and 66% would like more opportunities to bike. However, they feel that the current built environment discourages these forms of travel. A report released by the Ontario College of Family Physicians states "evidence clearly shows the people who live in spread-out, car-dependent neighbourhoods are likely to walk less, weigh more and suffer from obesity, high blood pressure and consequent diabetes, cardio-vascular and other diseases, as compared to people who live in more efficient, higher density communities."  

Several City of Hamilton departments, including Public Works, Planning and Economic Development and Community Services have adopted a pedestrian focused approach to delivering services. The City of Hamilton has a significant list of achievements in evaluating and designing a more pedestrian focused public realm. For a list of some key achievements in creating more active communities please see the attached pamphlet.

The City of Hamilton has implemented many design standards and guidelines that change the physical form of the public realm for improved benefit to pedestrians, cyclists and those who are physically challenged. The implementation of new planning reform guidelines such as New Urbanism require broad acceptance by the general public and the development community and long term strategies such as those already adopted through Council under Vision 2020.

As outlined in a recent article in the Annals of Behavioural Medicine, "A growing number of policy experts, urban planners, and transportation experts are concerned that we have built our communities so that it is difficult, and in many cases dangerous, to walk or bike and have thus “engineered” physical activity out of our daily lives." Active communities are created by the use of several urban planning principles, outlined below and in more detail in the attached pamphlet.

Mixed Land Use: Locating residential units close to destinations like work, restaurants, and shopping encourage active transportation. Each quartile increase in land use mix is associated with a 12.2% reduction in the odds of being obese.

Population Density: As population density increases, the number of walking trips also increases.

Proximity and Street Connectivity: The shorter the route, the greater the likelihood of active transportation. Grid-like streets provide more direct routes to destinations.

Safe Community Features: Features such as traffic calming, street lighting, building houses closer to the street, and front porches create a safer public environment.

19 Ann Behav Med 2003;25:80-91
Street Design: The buffering of sidewalks by landscaping, street furniture, on-street parking, and boulevards, increases safety, comfort level, and aesthetic appeal.

Streetscape: Streetscape is the space between the buildings, including the road. The more defined this space is and the quality of this space directly affects active transportation.

Using these planning principles, a community can be planned and developed that will have positive effects on the health of Hamiltonians. Figure 2 summarizes the multiple ways in which this can occur.

Figure 2: Health impacts of Community Planning

Allowing the Hamilton Partners for Healthy Weights policy sub-committee to provide the Board of Health with options for an active community pilot project could be the start of a healthier and more prosperous Hamilton. Possible ideas would be obtained through collaboration with city departments as well as outside agencies. The feasibility of these ideas would then be determined with their input. Examples could include, but are not limited to, creating more street closures such as those offered in Ottawa, but on a smaller scale. Ottawa provides 50 kilometres of scenic parkways every Sunday morning from Victoria Day to Labour Day which are closed to motorized traffic to allow walkers, joggers, and bikers physical activity opportunities in Capital and
Another possibility is the creation of a map or street signage that outlines pedestrian safe routes similar to those used for bike routes.

**ALTERNATIVES FOR CONSIDERATION:**

The Board of Health could choose not to pursue the pilot. However, the opportunity to impact on serious health problems for Hamiltonians including overweight and obesity would be missed. The city’s economy is also negatively affected by poor neighbourhood design due to higher infrastructure costs and loss of economic income due to higher worker absenteeism and unproductiveness. Tourism is negatively affected resulting in less income coming into the city.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

None at this time

**POLICIES AFFECTING PROPOSAL:**

Healthy communities will contribute to the following components of the Strategic Plan for Hamilton Public Health Services:

Goal C: Maximize impact on community health in four key areas of chronic disease prevention: tobacco control, nutrition, physical activity, and mental health.

C2. Identify best practices in chronic disease prevention.

C3. Reorient chronic disease prevention activities to ensure optimal reach and effectiveness.

C5. Advocate for environments that support healthy behaviours.

Healthy Communities will contribute to the following goals set forth by the City of Hamilton’s Right on Course Plan:

2d. Walk this Way – A City of Trails

   a. To increase the number of years of good health for all citizens by reducing illness, disability and premature deaths.
   b. To promote health and prevent disease and injury.
   c. To improve personal health status.

3g. Improving Air Quality to Help us Breathe

**RELEVANT CONSULTATION:**

Hamilton Wentworth Catholic District School Board
East Hamilton Kiwanis Boys and Girls Club
Culture and Recreation, City of Hamilton

CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, and economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No
Creating active communities increases opportunities for safe physical activity, healthy weights, social and emotional wellbeing, and clean air which will lead to better health and wellness for Hamiltonians.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
Creating environments that facilitate and support active transportation such as walking and biking in our neighbourhoods will reduce dependency on automobiles and their associated vehicular emissions.

Economic Well-Being is enhanced. ☑ Yes ☐ No
Well designed neighbourhoods increase physical activity resulting in more productive and satisfied staff and less absenteeism. Pedestrian and bike friendly areas increase tourism and money being spent in the city.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑ Yes ☐ No

Providing built environments that support and facilitate physical activity in our city and enhances community, health, and environmental and economic well-being of Hamiltonians. It therefore helps to make Hamilton a city of choice to live, work, and play.