



# EXECUTIVE SUMMARY

HEALTH **IMPACT** ASSESSMENT



## Assessing the Impact of a Transportation Utility Fee in Columbia, MO

*A Health Impact Assessment | Summer 2013*

funded by



Robert Wood Johnson Foundation

prepared by the  
HIA Partner Team



**Public Health**  
Prevent. Promote. Protect.  
Columbia/Boone County  
Public Health & Human Services



# INTRODUCTION

Community health is influenced by policies and programs from other domains, including education, transportation, and urban development. A Health Impact Assessment (HIA) is an evidence-based research tool used to inform decision-makers about the potential health risks and benefits of a broad array of policies, programs, and projects. An HIA identifies potential health effects and their likely distribution within the population, then recommends how a proposed program or policy might be altered to increase positive and decrease negative health outcomes.

Increased student ridership, new routes, budget cuts, and higher fuel costs have stressed the current Columbia Transit system, which is now considering potential funding mechanisms for redesigned routes, expanded operating hours, and more timely service. From 2011-12, the Columbia/Boone County Department of Public Health and Human Services partnered with the PedNet Coalition and Central Missouri Community Action to perform an HIA on the health effects of expanding and improving bus service in Columbia. Our findings suggested that expanding public transit would lead to positive health outcomes concerning residents' physical activity; exposure to the outdoors; and access to health care, employment, education, and healthy food options. It also could increase community cohesion and social capital. We found no evidence to suggest expanding bus services in Columbia would negatively impact community health.

Based on a city council request, this year the partner team performed a second HIA to identify potential health outcomes of a transportation utility fee designated specifically to fund public transportation. In conjunction, these studies provide information for the community dialogue concerning funding and expanding public transit in Columbia.

## PROJECT METHODS

The specific research question addressed by this HIA is: "How will a monthly transportation utility fee affect low- and fixed-income households?" The HIA Partner Team met in January 2013 to define the scope of the project and identified four indicators found to influence health that were also determined most likely to be affected by the addition of a transportation utility fee and a decrease in residents' disposable income. These indicators include:

- Food insecurity
- Stress
- Decreased health care access
- Poor housing conditions and housing security

## CORE GOALS OF THE HIA PROJECT:

- Assess potential health effects of funding expanded public transit in Columbia via a designated transportation utility fee.
- Determine the likelihood of these health effects, given the best possible evidence.
- Provide recommendations for how funding transit expansion could maximize positive and minimize negative health outcomes.
- Increase awareness among decision-makers and within the community about how different policies and programs influence health.
- Promote the use of HIA as a decision-making tool among policymakers and other stakeholders.

Our assessment of these indicators included a variety of data sources. We performed literature reviews; partnered with Columbia Transit to conduct a community-based survey about transportation difficulties and the effect of an additional transportation utility fee among low- and fixed-income city residents, bus users, and clients of local health and social service agencies; and interviewed select stakeholders more extensively to pinpoint nuanced effects previously unidentified in our research.

# EVIDENCE

The tables on pages three and four present the quality of evidence and likelihood of impact of the health indicators.

<b>EXPECTED CHANGE BASED ON LITERATURE</b>	<p><b>No change</b> – The literature achieves consensus that this indicator will likely remain unchanged.</p> <p><b>Mixed</b> – The literature lacks consensus about this indicator’s potential impact.</p> <p><b>Increase</b> – The literature achieves consensus that this indicator will likely increase.</p> <p><b>Decrease</b> – The literature achieves consensus that this indicator will likely decrease</p> <p><b>N/A</b> – There is no available literature on this indicator.</p>
<b>STAKEHOLDER PROJECTIONS</b>	<p><b>No change</b> – Stakeholders did not anticipate any changes.</p> <p><b>Mixed</b> – Stakeholders were divided in their opinions.</p> <p><b>Increase</b> – Stakeholders anticipated an increase.</p> <p><b>Decrease</b> – Stakeholders anticipated a decrease.</p> <p><b>N/A</b> – Stakeholders did not express their opinions.</p>
<b>EXPECTED HEALTH IMPACT</b>	<p><b>Positive</b> – Changes that may improve health.</p> <p><b>Negative</b> – Changes that may impair health.</p> <p><b>Mixed</b> – Changes may be both positive as well as negative.</p> <p><b>Uncertain</b> – Unknown how health will be impacted.</p> <p><b>No effect</b> – No identified impact on health.</p>
<b>MAGNITUDE OF IMPACT</b>	<p><b>Low</b> – Affects very few people.</p> <p><b>Medium</b> – Affects large numbers of people.</p> <p><b>High</b> – Affects many people.</p>
<b>LIKELIHOOD OF IMPACT</b>	<p><b>Likely</b> – Likely that impacts will occur as the result of the proposal.</p> <p><b>Possible</b> – Possible that impacts will occur as the result of the proposal.</p> <p><b>Unlikely</b> – Unlikely that impacts will occur as the result of the proposal.</p> <p><b>Uncertain</b> – Uncertain that impacts will occur as the result of the proposal.</p>
<b>DISTRIBUTION WITHIN THE POPULATION</b>	<p>The population most likely to be affected by the changes in health factors or outcomes.</p>
<b>QUALITY OF EVIDENCE</b>	<p>**** More than five strong studies.</p> <p>*** Five or more moderate studies.</p> <p>** Five weak studies.</p> <p>* Fewer than five studies.</p>

			Based Primarily on Evidence from Literature				
Health Factor or Outcome	Expected Change Based on Literature	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution within the Population	Quality of Evidence
<b>Research Question: How will a monthly transportation utility fee affect low- and fixed-income households? Health determinant: Income</b>							
<b>STRESS</b>	Increase	Increase	Increase	High	Likely	Low-income Fixed income	****
<b>FOOD INSECURITY</b>	Increase	Increase	Increase	High	Likely	Low-income Fixed income	****
<b>HEALTH CARE UTILIZATION</b>	Decrease	Decrease	Negative	High	Likely	Low-income Fixed income	****
<b>OVER-CROWDING</b>	Mixed	Increase	Negative	Medium	Possible`	Low-income Fixed income	*
<b>HOUSING STABILITY</b>	Decrease	Decrease	Negative	Low	Uncertain	Low-income Fixed income	***
<b>USE OF ALTERNATIVE HEATING AND COOLING SOURCES</b>	Increase	Increase	Negative	High	Likely	Low-income Fixed income	****
<b>SAFETY</b>	Decrease	Decrease	Negative	Low to Medium	Possible	Low-income Fixed income	***



## KEY FINDINGS

Review of the literature and input from key informants and community members strongly suggests that what may seem like an insignificant amount to some – \$2-4 monthly – could further harm the most vulnerable Columbia residents. A transportation utility fee added to households' rent or mortgage payments along with energy expenses would additionally drain limited disposable income. For low- and fixed-income families, money for food, health care, household items, car payments and maintenance, etc., is already limited so that any extra expenses threaten the residents' health and well-being. Therefore, it is important to note that the potential health effects of funding transit operation and expansion with a transportation utility fee depend on the monthly amounts charged to residents and businesses and the potential introduction of waivers or reduced fees for low- and fixed-income households.

**FOOD INSECURITY:** Families with limited and strained disposable incomes prioritize rent or mortgage payments and utilities over food. Additional expenses further decrease their food budgets, causing households to change their eating patterns; alter the quality, variety, or desirability of their diets; or cut their food intake. These actions lead to hunger and malnutrition, stunted physical development, lowered immunity, and reduced productivity at school or work.

**DECREASED HEALTH CARE ACCESS:** The gap in health outcomes and health care use between high- and low-income people is growing, with the latter less likely to have insurance, visit a primary care physician, or seek medical or dental care. Low- and fixed-income households pay fixed expenses before spending money on medical supplies or for preventive care, leading to additional illnesses, decreased quality of life, and costly treatments later on.

**POOR HOUSING CONDITIONS AND HOUSING SECURITY:** After rent/mortgage payments, low-income households pay their utility bills, which are often required as part of assistance offers from social service agencies. Individuals and families at or below the Federal Poverty Level spent a greater percentage of their incomes on energy than the average household. To compensate for additional fixed expenses, such as a transportation utility fee, households will likely seek to lower their energy bills by relying on unsafe alternative heating and cooling methods such as personal space heaters.

**STRESS:** Being low-income and/or living in low-education households affects people's mental health and children's development. Individuals and families with lower incomes are often forced to live in neighborhoods with a high preponderance of stress-inducing problems such as undesirable physical qualities (safety issues, trash, vandalism, or poor housing), lack of social support, and crime.

## RECOMMENDATIONS

- Create routes and timetables that are consistent throughout the week and post them at all stops. Also ensure the Columbia Transit website is timely and easy to navigate. Survey respondents indicated it is by far their most used source of information about the bus system (72.1%).
- Increase public outreach about how the bus system works, how little it costs compared to driving (parking, gas, car maintenance), and its efficiency with the new, faster routes and extended times. Survey respondents suggested more middle-income residents would use the busses if using public transit became normalized.
- Research alternative funding sources that have worked in other communities.
- Further solicit community input on funding options when gathering data for public transit proposals such as CoMO Connect.
- Adjust the transit hours of operation to accommodate hourly workers at hotels, hospitals, retail venues and restaurants, where operating hours run earlier and later than the traditional 8-5 schedule.
- If a transportation utility fee is chosen as a funding source, consider reducing or waiving altogether the fee for low- and fixed-income and other at-risk populations.

- Consider adding Sunday service, which would allow residents to access employment, health care, grocery stores, and religious worship, which in some cases reduces stress and increases community support.
- Ensure bus stops are located near grocery stores, the food bank, and farmers markets; health care facilities utilized more frequently by socially disadvantaged residents, such as MedZou, Planned

Parenthood, Family Health Center, Family Dental Center, and Columbia/Boone County Public Health and Human Services; neighborhood parks and recreation facilities; and social welfare and community services such as Central Missouri Community Action, Columbia Housing Authority, Columbia Public Library, and Services for Independent Living.

## ASSESSMENT

The costs of food, energy, higher education, housing and health care increased during the most recent economic downturn, when the median household income for the City of Columbia dropped 13.34% to just under \$41,000 from 2007 to 2010 (Malone, 2012). These added expenses disproportionately burden low-income and fixed-income families, including working families, female-headed households, minority households, retirees, and a record number of long-term unemployed adults affected by the poor economy. Despite assistance from expanded unemployment insurance and food and energy resources, many families struggle to afford rent, utilities, food, medical supplies and other basic household needs. Additional fixed costs strain many households' already lean disposable incomes.

At the same time, federal and state subsidies for public transportation have decreased over time, and recent economic conditions have made some local funding sources potentially unsustainable (Junge & Levinson, 2012). A relatively new, alternative local funding source for public transit is a transportation utility fee, which is usually staggered from \$1.50 to \$6 per month so that

properties that contribute more trips pay a higher fee per month. The HIA Partner Team determined that for the purpose of the HIA, single-family homes in Columbia would be considered to be assessed a \$4 per month fee while multi-family homes would be assessed a \$2 per month fee. These fees fall realistically within the amounts assessed by jurisdictions currently using transportation utility fees. The total amount raised from a transportation utility fee in Columbia would be approximately \$3.7 million per year: \$2 million (54% of total) from commercial properties and \$1.7 million (46% of total) from residential properties. The proposed transportation utility fee, current transportation sales tax, and matching federal assistance would provide Columbia Transit an additional 3,500 hours in operations per year, which could allow for additional hours on Sundays, reduced headways, or earlier or later service hours.

These improvements to the public transit system would positively impact public health in Columbia, according to results from the 2011-12 HIA. However, evidence from the current HIA demonstrates that a transportation utility fee of \$2-4 monthly will most likely negatively affect low- and fixed-income families.

**CONCLUSION** For many in the Columbia and Boone County community, \$2-4 is a forgettable amount easily spent without considering the impact to an individual or family's budget. However, for the approximately one in five residents living in poverty, as well as those who live just above Federal Poverty Guidelines, an additional monthly fee means even less money for food, health care, heating and cooling, education, and so on. Overall, evidence from the literature, community survey (available at <http://tinyurl.com/HIAcommunitysurvey>), and input from key informants suggests that a transportation utility fee will negatively affect low- and fixed-income residents, further exasperating their conditions concerning food security, health care access and use, housing conditions and security, and stress. The magnitude and distribution of these effects will be determined by the amount of the transportation utility fee and the possibility of reduced or waived fees for at-risk populations.