

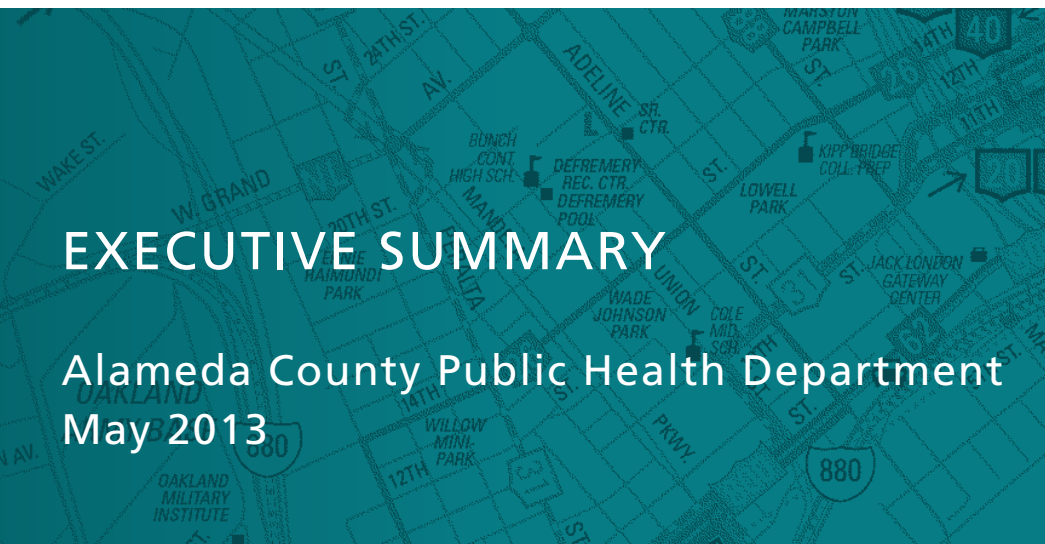


Getting on Board for Health

A Health Impact Assessment of Bus Funding and Access

EXECUTIVE SUMMARY

Alameda County Public Health Department
May 2013



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Executive Summary

**A Study to Inform the San Francisco Bay Area
Regional Transportation Plan**

Alameda County Public Health Department

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Executive Summary

Getting on Board for Health:

A Health Impact Assessment of Bus Funding and Access

Public Transportation Is Essential for Healthy Communities

Everyone needs affordable and reliable means of transportation. For the 2.2 million transit-dependent Bay Area residents who do not own or have access to a car,¹ public transportation is a lifeline to jobs, education, family and friends, healthy, affordable food, recreation, and medical care, all of which are essential for individual health and wellbeing.

Buses are particularly important for many of the Bay Area's most vulnerable riders. In the Bay Area, low-income residents and people of color rely heavily on buses,² populations who also face disproportionate health burdens and are more likely to live in neighborhoods where health-promoting resources are few and far between.³ Many bus riders are also people with disabilities, seniors, and youth who rely on the bus every day to get to places essential for their health. For transit-dependent residents living in neighborhoods farther from urban centers, buses are also crucial connectors to rail transit that carries people to important destinations throughout the region.

Bus Funding, Bus Access, and Health

Historically, buses receive the least amount of government funding of all transit forms. In addition, funding for public transportation, including buses, has been declining at all levels of government.⁴ In recent years, declining funding and the rising cost of operations

have forced many local transit operators across the country to cut service and raise fares.⁵

Between 2006 and 2011, nearly all bus operators throughout the San Francisco Bay Area cut service and/or raised fares, resulting in an 8% cut in bus service across the region.⁶ Local bus operator AC Transit cut approximately 15% of its service between 2009 and 2011 alone,⁷ and passed a policy to increase fares, including the cost of the monthly youth and senior/disabled passes, over several years.⁸

Between 2012 and 2013, the Alameda County Public Health Department (ACPHD) partnered with over 15 non-profit organizations and public agencies to explore the health implications of these recent bus service cuts and fare increases on AC Transit's transit-dependent riders, with the goal of informing a key transportation decision—the Regional Transportation Plan (RTP).

The RTP is the transportation component of Plan Bay Area, a document guiding future growth for the nine-county bay area that will be adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) in July 2013. The RTP shapes how \$289 billion in transportation funding from federal, state, and local sources will be distributed throughout the region over the next 25 to 30 years.⁹ While the RTP does not dictate how every dollar in funding is spent, it shapes a significant portion of local transit operators' funding supply, and for many local operators, it will be a major determining factor of future service levels—including whether operators have to cut service or increase fares again.

In this study, we conducted surveys and focus groups with 477 transit-dependent bus riders to investigate how recent bus service cuts and fare increases affected riders' quality of trip experience, affordability, and access to destinations essential for good health. To develop recommendations for MTC, we used data on experiences in the past, combined with secondary public health literature and an analysis of funding scenarios being considered for the upcoming RTP.

Our recommendations focus on how funding for public transit, including buses, may affect the health and well-being of transit-dependent riders. While this study focuses on transit-dependent populations in particular areas of Alameda County, it also reveals the potential health benefits of transit service for all riders across the region when it is affordable, reliable and accessible.

Key Findings

Stressful Commutes: Long Waits, Long Hauls, and Fear of Crime

The vast majority (88%) of surveyed riders were affected by service cuts in recent years. As a result, riders have experienced the following impacts on their daily life and health:

- **Longer waits, increased stress, and safety concerns.** Almost two-thirds (61%) of surveyed riders report experiencing longer bus wait times as a result of service cuts. Focus group participants also report that

“Safety is huge. Because with the cuts you have to wait longer, you can easily become a target.” – Senior

longer waits have increased stress and fear of exposure to crime at bus stops.

- **Crowded buses, no place to sit, and getting passed by the bus.** More than one-third (37%) of surveyed riders report more crowding on buses

after service cuts. Focus group participants noted that crowded buses can mean no place to sit and even longer waits if there is no space to board—which can lead to reduced bus access (especially for people in wheelchairs) and risk of pain or injury for seniors and people with disabilities.

- **Longer commutes associated with frequent stress.** Almost one-third (31%) of surveyed riders report experiencing longer commutes after service cuts. Longer commutes can mean more stress and additional transfer costs. **Riders experiencing longer travel times after service cuts, compared to riders with no impact on travel time, were almost twice as likely to report frequent stress and anxiety (28% vs. 15%).**

- **Reduced bus use, more driving, and more vehicle miles traveled.** While most surveyed riders report being completely transit-dependent, a small proportion (6%) said they managed to drive or get a ride to their destinations after service cuts. This means more vehicle miles traveled by car and more greenhouse gas emissions. Greenhouse gas emissions contribute to climate change, which may introduce multiple health and environmental stresses on communities throughout the region.

Unhealthy Trade-offs: Balancing Bus Fare with Basic Needs

- **Trade-offs.** Over the past decade, housing and transportation costs in the Bay Area have increased while average income has not—and these costs have been particularly burdensome for low-income households.¹⁰ Surveyed riders report having to make difficult budget trade-offs when they don't have enough money to cover monthly expenses.

“I'm already limiting how many times I go to the doctor, because I don't have the money to go do it...I can't afford additional transit costs. I just can't do it.” – Adult bus rider with disabilities

- **Cutting back.** To cope with the rising cost of bus fare, many focus group participants say they have to cut back on food, social activities, and trips to the doctor, all important factors for good health.

Service Cuts Directly Affect Access to Destinations Essential for Good Health

The vast majority (83%) of surveyed bus riders report that service cuts directly affected their ability to get to important destinations. When asked to choose one destination, surveyed riders say they were most affected in their ability to get to: job/work (31%), school (20%), social and community activities (11%), and healthcare places (6%).

Missing Work and Wages

Nearly one-third (31%) of surveyed riders said work was the destination most affected by bus service cuts. Findings among these riders:

- **Longer commute times.** Over one-quarter (28%) report an increase of 30 minutes or more to their commutes.
- **Fewer hours worked, job loss, and job relocation.** Focus group participants report that longer commutes can mean arriving late and losing wages for time missed at work. Nearly one quarter (23%) report that

“Service changes affect me because it takes me longer to get to work. And if I come 30 minutes late to work, I don’t get paid for that half hour, so I’m losing money.” – Adult rider

they don’t go to work as often or at all after service cuts, and a few riders report having to relocate to a different workplace altogether. Missed work days or reduced work

hours can translate into lost wages, which make it harder to afford basic needs that support good health.¹¹

Arriving Late and Falling Behind: Unhealthy Disruptions to School Attendance

Two in ten (20%) surveyed riders report that bus service cuts have most affected their ability to get to school. Findings among these riders:

- **Longer commute times to school.** Almost two in ten (19%) report that their school commute increased by 30 minutes or more after bus service cuts. Youth focus group participants report that longer commutes can mean lateness to school. Studies have found that long commutes are linked to increased stress and less time for activities that support good health, like sleep and exercise.^{11,12}
- **Missed school days.** Less than two in ten (18%) say they don’t go to school as often or at all after bus service cuts, and a few riders reporting changing schools. Tardiness and absences have been linked to lower academic performance and school graduation rates.¹³ Higher levels of educational attainment have also been linked to higher incomes, which correlates with better health and more positive health behaviors.¹⁴

Staying In, Losing Out: Social Isolation and Mental Health

Over one in ten (11%) surveyed riders report that bus service cuts most affected their ability to meet up with friends or family. Findings among these riders:

- **Less social activity.** Over one-quarter (28%) report that they go out to meet family and friends less often after bus service cuts.
- **Fear of social isolation.** In focus groups, youth and seniors express concern about social isolation

“Without the bus, I would not have a life, a social life. I’d be isolated.” – Senior, primarily Chinese speaking

from future bus service cuts. Seniors already report being isolated—with almost one in four (24%) of all surveyed seniors relying on the bus to get to social activities most or every time they go, and 60% reporting no friends or family within walking distance. Social isolation can have profound impacts on mental and physical health, especially in older adulthood.¹⁵

Reduced Access to Health Care Appointments

A small group (6%), predominantly composed of senior riders and riders with disabilities, report that bus service cuts most affected their ability to get to health-care appointments. Findings among these riders:

- **Longer travel times and missed appointments.**

Most (63%) say they experience longer travel times to

“I have two doctors’ appointments Monday, Wednesday, and Friday, I take public transportation to get there. These cuts have affected where I go, when I go, and even if I go. I wouldn’t dare think of doing these things on the weekends, because you can’t depend on the schedule.”

– Senior focus group participant

reach health-care services, which can result in late and/or missed appointments.

- **Fewer trips to health care.** A few report going to healthcare appointments

less often or not at all. Regular, preventive health care is important for sustaining good health.¹⁶

Recommendations

The Metropolitan Transportation Commission (MTC) is considering a number of funding scenarios for the current Regional Transportation Plan (RTP)—each of which would either fund the maintenance of existing levels of transit service, or increase levels of transit service to restore or exceed past levels. MTC’s Preferred scenario, which is currently incorporated into the draft

RTP, would fund all transit operators at a level necessary to maintain existing levels of service.

Based on the findings of this study, we recommend that MTC do the following:

1. **Increase funding for transit service, particularly bus service, in the RTP to support the health and wellbeing of transit-dependent riders and their communities and increase public transit ridership.**

Without funding to enhance bus service and restore cuts made in recent years, the impacts reported by riders in our study will continue—if not worsen. MTC predicts that the number and share of transit riders, and elderly and other transit-dependent riders in particular, will grow substantially over the next 25 to 30 years.¹⁷ In order to provide adequate service to current and future transit riders, MTC should devote more discretionary funding to transit in the RTP, using an investment strategy based on transit service restoration and expansion rather than maintenance.

Two scenarios under consideration by MTC direct more funding to transit for enhanced service levels—the Transit Priority alternative and the Equity, Environment, and Jobs (EEJ) alternative. While the Transit Priority alternative boosts service levels in urban core areas of the East Bay and San Francisco, the EEJ invests more funding into transit service, including bus service, across the region.¹⁸

Based on our study, we predict that the EEJ scenario would result in the best mobility-related health benefits for transit-dependent riders across the region—including improved access to essential destinations and less travel-related stress and safety concerns. MTC’s draft Environmental Impact Report (EIR) also found that the EEJ scenario would result in the best environmental benefits, including the lowest vehicle miles traveled and the most public transit trips made per day.¹⁹

MTC can also work with other transportation agencies to identify additional sources of funding for bus transit operations at the local, state, and federal level—including new or renewed county sales tax measures like Measure B in Alameda County, revenue from highway projects, and state-level cap and trade revenue.

2. Complete a study with the goal of facilitating the development of a regional discounted transit pass program for low-income riders.

A discounted transit pass for low-income riders has the potential to increase trips to essential destinations, improve health for transit-dependent riders, and increase the number of people using public transit.²⁰ While a couple of local transit operators (including MTA and VTA) offer discounts to low-income passengers, most transit operators do not currently offer such discounts as federal law only requires discounts for seniors and disabled passengers.

MTC has already recognized the need for greater transportation affordability in the Bay Area by committing to evaluate a means-based fare program.²¹ MTC should complete this study in order to 1) identify funding sources (both currently eligible sources and potential new revenue streams) to subsidize low-income transit riders throughout the region by keeping fares affordable, reducing transfer costs between operators, and where possible, combining multiple fares; and 2) examine best practices from existing programs and policies nationally. MTC should utilize study results to convene local operators throughout the region to explore how to facilitate discounts for low-income riders while limiting financial and administrative barriers to eligibility.

3. Incorporate quality of trip experience and service conditions into existing data collection and health analyses.

MTC can build on their existing commitment to health by analyzing quality of trip experience and actual service conditions on the ground as critical

mobility-related health issues. Collecting data about these issues will not only strengthen understanding of existing service quality throughout the region; it could also directly inform future planning efforts and save costs to operators by more accurately identifying transit service needs.

MTC should encourage local operators to build on their existing data collection practices by providing a standard set of metrics for field-based observation that include wait time, crowding and skipped passengers, and travel time. MTC can also work with local operators to develop a standard set of questions for on-board rider surveys that address actual transit spending, transfers and travel time, wait time, and feelings of personal safety and stress on and while waiting for the bus. In order to maximize existing resources, these questions and metrics could be built into the data collection practices in MTC's Short Range Transit Planning Program as well as MTC's Transit Performance Initiative. Once collected, this data could be compiled into a centralized database and shared publicly.

This study uncovered a number of significant public health impacts facing transit-dependent riders when bus access is reduced. Additional research is needed to provide more nuanced analyses of funding, service levels, and health. MTC should consider partnering with local health departments to develop metrics and tools as outlined above and to pursue future analyses of transportation and health impacts.

References

1. TransForm. Strategic Investments for a Better Bay Area. 2011. Available at: www.efficiencycities.org/wp-content/uploads/resources/ECC/scs-transportation-platform.pdf.
2. Metropolitan Transportation Commission. 2006 Transit Passenger Demographic Survey.
3. Alameda County Public Health Department. August 2008. Life and Death from Unnatural Causes: Health and Social Equity in Alameda County. August 2008.
4. Sanchez TW, Stolz R, and Date JS. Moving to Equity: Addressing Inequitable Effects of Transportation Policies on Minorities. June 2003. Available at: <http://civilrightsproject.ucla.edu/research/metro-and-regional-inequalities/transportation/moving-to-equity-addressing-inequitable-effects-of-transportation-policies-on-minorities>.
5. American Public Transportation Association. Challenge of State and Local Funding Constraints on Transit Systems: Effects on Service, Fares, Employment, and Ridership: Survey Results, June 2009. Available at: www.apta.com/resources/reportsand-publications/Documents/constraints_09.pdf.
6. Multiple sources: National Transit Database, the Metropolitan Transportation Commission's Statistical Summary of Bay Area Operators (2006-2011), and transit operators.
7. AC Transit. Data on service level history. Personal communication.
8. AC Transit. Board Policy No. 328. Fare Policy: Fares, Fare Structure, and Fare Increases. June 2011. Available at: www.ac-transit.org/wp-content/uploads/board_policies/BP%20328%20-%20Fare%20Policy.pdf.
9. Association of Bay Area Governments and Metropolitan Transportation Commission. Draft Plan Bay Area: Strategy for a Sustainable Region. March 2013. Available at: http://onebayarea.org/pdf/Draft_Plan_Bay_Area_3-22-13.pdf.
10. Metropolitan Transportation Commission. Draft Equity Analysis Report including Title VI, Environmental Justice and Equity Analysis for Plan Bay Area. March 2013. Available at: http://onebayarea.org/pdf/Draft_Plan_Bay_Area/Draft_Equity_Analysis_Report.pdf.
11. Wener RE, Evans GW, Phillips D, and Nadler N. Running for the 7:45: the effects of public transit improvements on commuter stress. *Transportation*. Kluwer Academic Publishers, Netherlands. 2003; 30:203-220.
12. Walsleben JA, Norman RG, Novak RD, O'Malley EB, Rapoport DM, and Strohl KP. Sleep habits of Long Island Rail Road commuters. *Sleep*. 1999;22(6):13.
13. Strazdins L and Loughrey B. Too busy: why time is a health and environmental problem. *NSW Public Health Bulletin*. 2007;18(11-12):219-221.
13. Alameda County Public Health Department. August 2008.
14. Halfors D, Vevea JL, Iritani B, Cho H, Khatapoush S, and Saxe L. Truancy, grade point average, and sexual activity: a meta-analysis of risk indicators for youth substance use. *Journal of School Health*. 9 October 2009;72(5).
15. Hawkey LC, Cacioppo JT. Aging and loneliness: Downhill quickly? *Current Directions in Psychological Science*. 2007;16:187-191.
16. Prevention Institute. *Prevention is Primary: Strategies for Community Well-Being*. San Francisco: Jossey-Bass, 2010.
17. Association of Bay Area Governments and Metropolitan Transportation Commission. March 2013.
18. Dyett and Bhatia in association with Environmental Science Associates and AECOM. Draft Environmental Impact Report on Plan Bay Area. Prepared for Metropolitan Transportation Commission and Association of Bay Area Governments. April 2013. Available at: http://onebayarea.org/pdf/Draft_Plan_Bay_Area/Draft_EIR.pdf.
19. Ibid.
20. Metropolitan Transportation Commission. Memorandum to Programming and Allocations Committee Re: Funding for Low-Income Transit Pass Pilot Programs. May 9, 2012.
21. Ibid.

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