



ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
PUBLIC HEALTH DEPARTMENT

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Metropolitan Transportation Commission Commissioners
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Transportation 2035 Plan: An Opportunity to Promote Positive Health Outcomes for All

Dear Metropolitan Transportation Commission Commissioners:

The Alameda County Public Health Department (ACPHD) is committed to improving and promoting health among the people we serve. Despite improvements in health status across all groups in Alameda County, we continue to observe large and persistent disparities in health based on race, income, and neighborhood. The root causes of health disparities are complex and closely tied to similar persistent racial and class disparities in access to affordable transportation and housing, quality education and employment, a fair criminal justice system, and healthy neighborhoods, to name just a few. In order to eliminate health disparities, we are committed to working with other sectors to support health-promoting policies and practices.

It is our pursuit of such health-promoting policies that leads us to write to you regarding the Regional Transportation Plan 2035 (RTP 2035). We commend you for your leadership in setting groundbreaking goals for the environmental, economic, and equity impacts of RTP 2035. Specifically, we are writing to express our support for programs that will contribute toward realizing these goals and that are aligned with the following:

1. Ensure affordable and reliable access to transportation among all communities by prioritizing the transportation needs of those who are currently most in need: low-income people.

Low-income people devote a larger portion of their household income to transportation costs, compared to those with higher incomes. A lack of affordable transportation in low-income communities with high concentrations of people of color is contributing to poor health outcomes (please see Appendix A for details). To help address this inequitable situation, we specifically ask that you to prioritize the following programs:

- a. **Create a regional fare affordability program**, (not tied to any one transit operator), that will decrease the burden transportation costs place on low-income households. Not one transit operator.
- b. **Fund projects identified in the Community Based Transportation Plans and fill the transit gaps identified in the Lifeline Transportation Network** so as to ensure access to reliable transit in low-income communities with high concentrations of people of color.
- c. **Prioritize programs that encourage Transit-Oriented Development that includes on-site affordable housing.**

2. Prioritize projects that will improve air quality, particularly for communities that are disproportionately burdened by environmental toxins and related diseases such as asthma.

The San Francisco Bay Area is a major metropolitan area with a large volume of traffic, commerce, and industry. As a result, **all Bay Area residents are exposed to levels of air pollution that are above state air quality standards for both ozone and diesel particles.** Additionally, some Bay Area residents are exposed to much higher levels of air pollution. Low-income communities and communities of color are disproportionately exposed to environmental toxins such as CO₂, PM_{2.5} and PM₁₀ (please see Appendix B for details). As a result, these communities are burdened by environmentally-linked diseases. To help improve air quality for all Bay Area residents, as well as address the unequal distribution of environmentally linked diseases, please prioritize the following:

- a. **Fill transit gaps, increase transit options and improve connectivity**, as increasing access to and improving the quality of transit options is a proven strategy for reducing vehicle miles traveled (VMT). However, before any transit expansion, please prioritize filling gaps in transit service and address transit operating shortfalls. Additionally, please ensure any future transit expansion is coordinated with transit oriented development rather than facilitating sprawl.
 - b. **Ensure programs related to efficient goods movement prioritize air quality improvement, especially in disproportionately impacted communities.**
- 3. Prioritize projects that will increase access to bicycle and pedestrian facilities, especially in low-income neighborhoods, as they have tend to have disproportionately high rates of pedestrian and bicyclist injuries, as well as high rates of diseases linked to low levels of physical activity.**

Increasing and improving pedestrian and bicycle facilities reduces driving, promotes physical activity, and increases pedestrian and bicyclist safety. Funding for improving the environment for pedestrians and bicyclists should be targeted areas that suffer from high rates of pedestrian and bicyclist injuries. Additionally, such priority should be given to areas characterized by few opportunities for exercise, as a lack of access to such facilities contributes to high rates of chronic diseases such as diabetes (see Appendix C for details).

Again, thank you for your leadership in creating a RTP that supports environmental, economic, and equity goals. As you consider the necessary trade-offs, we hope that you consider their impacts on health. The health disparities facing the Bay Area are formidable. However, by working with our colleagues in other agencies, we can achieve health equity. We are available to consult with you on the health impacts of RTP 2035. Thank you for taking our comments into consideration.

Sincerely,

Anthony Iton, MD, JD, MPH
Director and Health Officer
Alameda County Public Health Department

Attachment A:

Health Consequences of Unaffordable, Unreliable and/or Inaccessible Transportation in Low-Income Communities

Low-income households dedicate a larger share of their income to transportation costs than those with higher incomes and are more likely to be transit dependent. For instance, the average household earning less than \$20,000 per year spends over half its income on transportation compared to 7% of income among the average household earning \$100,000 per year.ⁱ Moreover, there is national evidence indicating that transportation costs are increasing at a faster rate for low-income households than for higher-income households.ⁱⁱ Finally, residents in low-income communities are less likely to own a car.ⁱⁱⁱ

There are several layers to the health consequences of unaffordable and/or inaccessible transportation among low-income people. Low-income parents identify transportation difficulties, such as high costs and inaccessibility, as a **significant barrier to obtaining routine medical care** for themselves and their children.^{iv} Transportation is also a significant barrier to reaching food and retail options for the transit dependent. Residents in low-income communities are 3 times less likely to have a grocery store within their neighborhood.^v Therefore these residents rely more heavily on mass transit to complete their shopping. If mass transit is unaffordable, unreliable or otherwise inaccessible, residents are forced to shop within their neighborhoods. For low-income neighborhoods, this generally means shopping at smaller stores with substantially less healthy food at higher prices.^{vi} This lack of access can lead to food insufficiency and insecurity – the lack of access to enough food to fully meet basic needs at all times – in vulnerable populations, while **contributing to the risk of diabetes, overweight and obesity**.

Unavailable or unreliable transportation is a factor in people's ability to take and keep a job. In Atlanta, Portland^{vii}, and Los Angeles,^{viii} researchers found significant employment effects from increased bus access and improved accessibility to employment hubs. Studies have also shown that single women on public assistance without access to a personal automobile experience employment benefits from increased transit access.^{ix} **Employment in turn, is associated with better mental and physical health in employees and their families.**

Finally, **limited access to public transit creates barriers to participation in community and civic life, particularly for transit dependent populations.** Strong social relationships protect against health risks, like depression and feelings of isolation, pregnancy complications, and disability from chronic diseases.^{x, xi} On the other hand, **a lack of community cohesion is strongly associated with violence.**^{xii}

Appendix B

Health Consequences of Disproportionate Exposure to Sources of Air Pollution in Low-Income Communities of Color

A growing body of research provides strong evidence that poor people and people of color are much more likely than white people and those with higher incomes, to live in close proximity to areas with high levels of air pollution, such as freeway interchanges, ports, railways, and industrial toxic release sites.^{xiii, xiv, xv, xvi, xvii}

Long-term exposure to air pollution leads to higher rates of illness and premature

death.^{xviii, xix, xx, xxi} Truckers and heavy equipment operators who work around diesel exhaust are at increased risk of lung cancer.^{xxii} Shorter term exposures can make allergies, asthma, and chronic bronchitis worse.^{xxiii} Air pollution also can affect fetal development, decrease lung function, and increase susceptibility to respiratory infection.²³ Many air pollutants have recently been found to be harmful to more vulnerable groups, including children, the elderly, and asthmatics, at levels that were previously thought to be safe.²³ In fact, exposure to air pollution may actually affect the long term development of young children's respiratory, nervous, endocrine and immune systems.²³ Children, especially, may be more vulnerable to air pollutants because they breathe more rapidly than adults, they tend to breathe through their mouths, their immune system is not fully developed, and they spend more time outdoors.²³

Attachment C

Pedestrian and Bicyclist Injuries and Physical Inactivity in Low Income Communities

Recent studies indicate that increasing and improving pedestrian and bicycle facilities, including sidewalks, bike lanes, lighting, traffic calming devices, and more, reduces driving, promotes physical activity, and increases pedestrian and bicyclist safety. Promoting physical activity can improve health outcomes especially in low-income communities of color, which tend to have fewer opportunities to exercise, contributing to higher rates of diabetes, overweight, and obesity.

Physical Activity

Studies have identified a variety of neighborhood conditions that make physical activity extremely difficult, especially for low-income people. For example, poorer neighborhoods are likely to contain fewer amenities such as sports fields than affluent neighborhoods, contributing to higher rates of physical *inactivity* in these neighborhoods.^{xxiv} Physical inactivity is linked with increased **risk of coronary heart disease, colon cancer, and diabetes**. Modest increases in physical activity levels are associated with substantial reduction in mortality from these conditions. Physical activity is **protective against cognitive decline in the elderly, depression, osteoporosis, and a range of other common health conditions**. Physical inactivity is **a risk factor for overweight, which puts people at greater risk for type 2 diabetes, stroke, and other chronic diseases**.^{xxv}

Pedestrian and Bicyclist Safety

Increasing safety for pedestrians and bicyclists will particularly benefit low-income communities where rates of pedestrian and bicyclist injuries are disproportionately high due to environments characterized by streets carrying heavy volumes of traffic at high speeds and a lack of sidewalks and bike lanes. **Overall, pedestrians and cyclists are several times more likely to be killed in a motor vehicle crash than car occupants.**^{xxvi} **Rates of injuries to pedestrians and bicyclists are even higher in poor neighborhoods**, as they often lack the structural factors, such as sidewalks and bike lanes, that make biking and walking safe, as well as carry high traffic volume and high speeds.^{xxvii,xxviii,xxix}

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- ⁱ Benedict, A., Dawkins, C., Haas, P., Makarewicz, C. & Sanchez, T. (2006). *Housing & Transportation Cost Trade-offs and Burdens of Working households in 28 Metro Areas*. Center Neighborhood Technology and Virginia Tech University, Retrieved January 30, 2008 from the World Wide Web: www.cnt.org/repository/H-T-Tradeoffs-for-Working-Families-n-28-Metros-FULL.pdf
- ⁱⁱ Sanchez, Thomas, Stolz, Rich, & Ma, Jacinta, 2003
- ⁱⁱⁱ Kimberly Morland, et al. "Access to Healthy Foods Limited in Poor Neighborhoods," *American Journal of Preventative Health*. January 2002
- ^{iv} Flores, G., Abreu, M. Olivar, MA, & Kastner, B. (1998) "Access Barriers to Health Care for Latino Children," *Archives of pediatrics adolescent medicine* 152(11): 1119-1125.
- ^v Kimberly Morland, et al. "Access to Healthy Foods Limited in Poor Neighborhoods," *American Journal of Preventative Health*. January 2002
- ^{vi} Mark Vallianatos, et al. "Transportation and Food: The Importance of Access," *Center for Food and Justice, Urban and Environmental Policy Institute*. October 2002. Available at: departments.oxy.edu/uepi/cfj/publications/transportation_and_food.pdf
- ^{vii} Sanchez, T. "The connection between public transit and employment: the cases of Portland and Atlanta," *Journal of the American Planning Association*. 1999 Vol. 65, p284-296, 13p
- ^{viii} Kawabata, M. "Job accessibility by travel mode in U.S. metropolitan areas," *Papers and Proceedings of the Geographic Information Systems Association*. 2002 Vol. 11, p115-120,
- ^{ix} Ong, P., Houston, D. "Transit, employment, and women on welfare," *Urban Geography*. 2002 Vol. 23, p344-364
- ^x Turner RJ, Marino F. Social support and social structure: a descriptive epidemiology. *J Health Soc Behav* 1994;35:193-212.
- ^{xi} Wilkinson R and Marmot M. *The Solid Facts. Social Determinants of Health*. WHO. 2003.
- ^{xii} Sampson, R.J., Raudenbush, S.W., & F. Earls, 1997. Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science*, 277, 918-924.
- ^{xiii} Pastor M, Sadd J, Morello-Frosch R. *Still Toxic After All These Years: Air Quality and Environmental Justice in the San Francisco Bay Area*. Center for Justice, Tolerance and Community, University of California, Santa Cruz, February 2007.
- ^{xiv} Kim JJ, Smorodinsky S, Lipsett M, Singer BC, Hodgson AT, and Ostro B. Traffic-related Air Pollution near Busy Roads: The East Bay Children's Respiratory Health Study. *Am. J. Respir. Crit. Care Med*. 2004; 170:520-526.
- ^{xv} Ash M, Fetter TR. Who Lives on the Wrong Side of the Environmental Tracks? Evidence From the EPA's Risk-Screening Environmental Indicators Model. *Social Science Quarterly*. 2004; 85(2):441-462.
- ^{xvi} Morello-Frosch R, Pastor M, Sadd J. Environmental Justice and Southern California's 'Riskscape': the Distribution of Air Toxics Exposures and Health Risks Among Diverse Communities. *Urban Affairs Review*. 2001;36(4):551-578.
- ^{xvii} Green RS, Smorodinsky S, Kim JJ, McLaughlin R, Ostro B. Proximity of California Public Schools to Busy Roads. *Environ Health Perspect*. 2004; 112(1):61-66.
- ^{xviii} California Environmental Protection Agency, Office of Environmental Health Hazard Assessment and American Lung Association of California. Health Effects of Diesel Exhaust fact sheet. http://www.oehha.org/public_info/facts/dieselfacts.html. (Accessed Feb 2008)
- ^{xix} Künzli N, Jerrett M, Mack WJ, et al. Ambient Air Pollution and Atherosclerosis in Los Angeles. *Environ Health Perspect*. 2005; 113(2):201-206.
- ^{xx} Jerrett M, Burnett RT, Ma R, et al. Spatial Analysis of Air Pollution and Mortality in Los Angeles. *Epidemiology*. 2005; 116(6):727-736.
- ^{xxi} Kinney L. The Pulmonary Effects of Ozone and Particulate Air Pollution. *Semin Respir Crit Care Med*. 2004; 20(6):601-607.
- ^{xxii} Bailey D, Goldman Z, Minjares M. Driving on Fumes: Truck Drivers Face Elevated Health Risks from Diesel Pollution. NRDC Issue Paper, December 2007. NRDC: NY,NY.
- ^{xxiii} California EPA, Office of Environmental Health Hazard Assessment and American Lung Association of California. Air Pollution and Children's Health. Fact Sheet. http://www.oehha.org/public_info/facts/pdf/kidsair4-02.pdf. Accessed Feb 2008.
- ^{xxiv} Frank, LD; Engelke, PO and Schmid, TL. "Physical Activity. Children, the Elderly, and the Poor". In *Health and Community Design: Impact of the Built Environment on Physical Activity*. Island Press. Washington, DC. 2003.
- ^{xxv} Frank, LD; Engelke, PO and Schmid, TL. "Physical Activity and Public Health." In *Health and Community Design: Impact of the Built Environment on Physical Activity*. Island Press. Washington, DC. 2003.
- ^{xxvi} John Pucher and Lewis Dijkstra, "Promoting Safe Walking and Cycling to Improve Public Health: Lessons From The Netherlands and Germany," *American Journal of Public Health* 93, no. 9 (2003): 1509-1516.
- ^{xxvii} Braddock, Mary, Garry Lapidus, David Gregorio, Mary Kapp, and Leonard Banco. 1991. "Population, Income, and Ecological Correlates of Child Pedestrian Injury." *Pediatrics* 88 (6): 1242-7.
- ^{xxviii} Mueller, Beth, Rivara, Frederick, Shyh-Mine, Lii & Weiss, Noel. (1990). *Environmental Factors and the Risk for Childhood Pedestrian-Motor Vehicle Collision Occurrence*. *American Journal of Epidemiology* 132(3): 550-560.
- ^{xxix} Puranik, Subhash. 1998. "Profile of Pediatric Bicycle Injuries." *Southern medical journal* 91 (11): 1033.