

Why a Comprehensive Health Analysis in the I-710 EIR/EIS?

A Brief on Health Impact Assessments



On October 29th, 2009 & January 28, 2010 the I-710 Project Committee voted in support of conducting a Health Impact Assessment (HIA) as part of the EIR/EIS of the proposed I-710 project. The following brief prepared for the I-710 Project Committee provides background and information about how the I-710 project can impact health, and how a Health Impact Assessment can be used to address and mitigate potential negative health impacts of the project – ensuring that the I-710 project is an improvement project as it is intended to be.

This investment is a positive step in assessing policies that put the health of residents along the I-710 corridors a priority. Tools, such as HIA, that use sound evidence to anticipate unexpected health and safety consequences can help you make an informed decision in evaluating policy proposals.



How do planning decisions impact health?

More than 50% of our health is determined by the environments where we live and work, so the effects on health should be thoroughly reviewed in land-use decision-making.

Public health, environmental health and planning experts recognize that the root causes of many health problems reside in our patterns of land use and community design. A growing body of research now documents how decisions about land use and the built environment have a significant impact on a population's health outcomes and quality of life.

- **Cancer:** Studies in California reveal that about 85 percent of the **risk of cancer** from air pollution comes from diesel exhaust alone.¹
- **Respiratory Illnesses:** Children living within 500 feet of busy roadways have increased risk of **asthma** and other **respiratory problems**.²
- **Physical Activity:** Access and proximity to places for physical activity, including parks, are significant predictors of **physical activity** levels.³
- **Noise exposure:** Long term exposure to moderate levels of ambient noise can **increase stress, hypertension, blood pressure, heart disease, sleep disturbance, hearing impairment**, and, in children, can lead to **learning delays**.⁴

As a transportation link from the Ports of Los Angeles and Long Beach, the I-710 freeway carries a large number of diesel trucks transporting goods from the ports. High traffic congestion from goods movement activity has led to levels of pollution in the area that exceed many areas in the county and across the state. The proposed I-710 project would impact an 18-mile stretch of the freeway that goes through 15 cities in close proximity to schools, hospitals, daycare and senior centers. This is one of the largest public works projects in the nation and therefore of vital importance that this be an improvement project to benefit the health and safety of local residents.

There are a number of important health determinants that will be impacted by I-710 project, including:

- **Air Quality:** Research shows that living close to high levels of traffic is associated with reduced lung function⁵, increased asthma hospitalizations⁶, asthma symptoms⁷, bronchitis symptoms⁸, cardiovascular disease⁹ and other chronic conditions.
- **Congestion and Mobility** on the I-710 as well as on arterial streets in local communities could impact pedestrian safety¹⁰, walkability, bikeability, and accessibility to schools, retail and public services.¹¹
- **Jobs & Economic Development:** Prevalence of health disparities persists among low-income communities of color who are particularly vulnerable to environmental health exposures. People with lower incomes have higher risks than people with higher incomes for poor health and premature mortality, for giving birth to low birth weight babies, for suffering injuries or violence, for getting most cancers, and for getting chronic conditions.¹²

In order to understand how the proposed alternatives for the I-710 project will impact these issues, and in turn the community's health, a comprehensive analysis of health impacts must be included in the I-710 EIR/EIS.

All of California's residents deserve the same opportunities to be healthy and live a full, prosperous life.

Optimal health cannot be achieved by health services and individual behaviors alone. A healthy society requires healthful environments and working conditions including adequate housing; access to public transit, schools, parks and public spaces; safe routes for pedestrians and bicyclists; meaningful and productive employment; unpolluted air, soil, and water; and, cooperation, trust, and civic participation.



Low-income and communities of color experience significantly poorer health status and are more likely to live in neighborhoods that do not provide systems that promote good health. In addition to determining quality of life, health inequalities lead to losses of time and money for businesses, schools, and other local operations. ***In order to provide everyone the opportunity to live a healthier life, projects should be designed to promote health, especially for neighborhoods that have the greatest need for healthier environments.***

Integrating Health in the I-710 Environmental Impact Review/Statement

The proposed I-710 project is subject to regulation under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), as the project would receive both federal and state funding. Both NEPA and CEQA require an Environmental Impact Assessment (Environmental Impact Statement (EIS) and Environmental Impact Report (EIR), respectively) – which is an analysis of how the proposed project alternatives would impact the surrounding environment.

The stated objectives of the EIR/EIS for the I-710 project include developing transportation alternatives that will:

- **Improve air quality**
- **Improve mobility, congestion and safety**
- **Assess alternative, green goods movement technologies**

While both NEPA and CEQA legally require health impacts (including health impacts related to social and economic effects) to be addressed in the EIR/EIS, traditional Environmental Impact Assessments have failed to comprehensively address human health impacts.

The California Environmental Quality Act requires that all potential environmental changes that can result in significant adverse impact on humans or public health must be addressed in an environmental impact report. (Section 15126.2 (a); Section 15065)

*Stated in the purpose of the National Environmental Policy Act is to promote “efforts which will prevent or eliminate damage to the environment and biosphere and stimulate **the health and welfare of man** (42 USC 4321).*

By having approved the recommendation to conduct a Health Impact Assessment (HIA), the I-710 Project Committee will become a leader of Environmental and Health Impact Assessment and will help to ensure that the I-710 project meets its stated objectives. To ensure that the HIA is effective, the analysis needs to be included in the EIR/EIS.



★ Health Impact Assessment (HIA)

The underlying aim of most public policies, laws and institutions, particularly those concerned with land use, transportation, and the environment, are to protect and promote the public's well being. Considering that the objectives for the I-710 EIR/EIS focus on improvements that would benefit health, it is crucial that comprehensive health impacts are considered in this environmental impact assessment.

Health Impact Assessment:

- Refers to evidence-based methods and tools used to inform policy-makers about how policies, plans, programs, or projects can affect health, health behaviors, and social resources necessary for health;
- Is a proven approach that can help to assess policy proposals and new projects to advance those that are best to improve community conditions, create safer communities, and increase quality of life by providing objective recommendations;
- Is much like an environmental impact assessment, but it focuses on the potential effects of a decision on the health of the population and the distribution of those effects within the population;
- Can aid project dollars go further by accounting for unintended consequences to health and related costs.

Many environmental and planning constituencies have mobilized in support of the use of HIA, including:

- **The Environmental Protection Agency Region 9** has repeatedly advocated for the use of HIA in the I-710 EIR/EIS.
- **The Los Angeles County Department of Public Health** has experience conducting HIA's, and has presented to the Environmental Subject Working Group, the Corridor Advisory Committee, as well as the Project Committee about HIA, and their support for including an HIA in the I-710 EIR/EIS.

★ HIA: Lessons learned from Seattle, Washington

Seattle had a unique opportunity to build a transportation project that moves people throughout the region while helping to create healthy places to live, work, and play. State Route 520 (SR 520) was constructed in 1963 with little attention to the health problems associated with car emissions, neighborhood disruption, and degradation of the natural environment. The region had a chance to correct past oversights and approach the SR 520 Bridge Replacement and HOV Project in a way that embraced the region's commitment to providing a healthy community for all people.

Transportation planners made a decision to support individuals and communities in making good healthy choices by designing a transportation project that would go beyond its primary purpose of moving motor vehicles. They conducted a health impact assessment for the project that helped city officials compare three options for rebuilding a major bridge and select the most efficient way to improve safety and the health of the community. A final plan signed by the governor created one continuous HOV lane in each direction, wider shoulders for disabled vehicles and a bicycle-pedestrian path, resulting in not only better transportation options, but also data-driven, cost-effective measures to reduce injuries, increase exercise, and reduce pollution exposure in affected communities.

Benefits to incorporating health considerations into decision making

- Addressing health impacts up front in the planning process may actually speed a project's approval, as their will likely be more public support for the project.
- Health analyses provide more data that can be used to make more informed decisions.
- Transportation agencies, public health departments, regulatory agencies, universities and communities working together can lead to productive partnerships and a new paradigm in transportation/land use planning.

Conclusion

As a corridor, considerations of the I-710 project must go beyond the freeway and infrastructure, and health must be an overriding consideration; any change to the I-710 should be viewed as an opportunity for repair and improvement of the current situation.

Understanding all of the health implications of a proposed project will help to advance better transportation policy. Conducting a Health Impact Assessment can ensure that the I-710 is an improvement project for all stakeholders, especially impacted communities. An HIA should be conducted as part of the EIR/EIS, and the HIA findings should be used to provide evidence-based recommendations to help improve the health outcomes of the I-710 project.



¹ South Coast Air Quality Management District, "Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-III)," March 2008, p. ES-3.

² Kim JJ, Smorodinsky S, Lipsett M, Singer BC, Hodgson AT, Ostro B. (2004). Traffic-related air pollution and respiratory health: East Bay Children's Respiratory Health Study. *American Journal of Respiratory and Critical Care Medicine* 170:520-526.

³ Cohen DA, et. al., (2006). Public parks and physical activity among adolescent girls. *Pediatrics* 118:1381-1389.

Humpel N, Owen N, Leslie E. (2002). Environmental factors associated with adults participation in physical activity: A review. *American Journal of Preventive Medicine* 22(3):188-199.

⁴ Van Kempen EEMM, Kruize H, Boshuizen HC, Amelin CB, Staatsen BAM, de Hollander AEM. (2002). The association between noise exposure and blood pressure and ischemic heart disease: A meta-analysis. *Environmental Health Perspective* 110:307-317.

Stansfeld SA, Berglund, B, Clark C, Lopez-Barrio I, Fischer P, Öhrström E, Haines MM, Head J, Hygge S, Kamp I, Berry BF, and RANCH study team. Aircraft and road traffic noise and children's cognition and health: a cross-national study. *The Lancet*, June 4-10, 2005, Vol. 365 (9475): 1942-49

Stansfeld S, Haines M, Brown B. (2000). Noise and health in the urban environment. *Rev Environmental Health* 15(1-2): 43-82.

⁵ Gauderman, W.J. et al. (2007) "Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study." *Lancet* 369(9561):571-7.

⁶ Weiland SK, Mundt KA, Rückmann A, Keil U. (1994) Self-reported wheezing and allergic rhinitis in children and traffic density on street of residence. *Ann Epidemiol* 4:243-247.

⁷ McConnell, R., et al. (2006). "Traffic, Susceptibility, and Childhood Asthma." *Environ Health Perspect* 114(5): 766-772.

⁸ McConnell, R., K. Berhane, et al. (2003). "Prospective Study of Air Pollution and Bronchitic Symptoms in Children with Asthma." *Am J Respir Crit Care Med* 168(7): 790-797.

⁹ Brook, R.D., et al. (2004) "Air Pollution and Cardiovascular Disease. A Statement for Healthcare Professionals From the Expert Panel on Population and Prevention Science of the American Heart Association." *Circulation* 109(21):2655-2671.

¹⁰ Moudon, AV et al. (2003) Pedestrian safety and transit corridors. Research Report, Agreement T2695, Task 10, Pedestrian Safety.

¹¹ US Centers for Disease Control and Prevention. (2002) Barriers to children walking and biking to school -- United States, 1999. *MMWR*. 51(32):701-704.

¹² Yen I.H. and S.L. Syme. *The Social Environment and Health: A Discussion of the Epidemiologic Literature*. (1999) *Annual Review of Public Health*. (20)287-308