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Quantifying How Transportation Investments Change Bicycle and Pedestrian Behavior in Public Health

As part of the Metropolitan Transportation Commission's Regional Transportation Plan, a benefit cost analysis was conducted that monetized the benefits of active transportation modes such as bicycling and walking. How can a region quantify the benefits of investments in bicycle and pedestrian infrastructure? How does infrastructure and transportation investments change behavior? The Metropolitan Transportation Commission conducted a benefit cost analysis of projects to be considered in the long range Regional Transportation Plan (RTP). This performance assessment of transportation investments was conducted using a benefit cost methodology that monetized benefits of traditional transportation goals such as travel time and automobile emissions but also evaluated the health care and lost productivity savings from increased levels of physical activity. This was the first time any direct health costs were evaluated in a transportation plan. Results indicated that Bay Area residents that received increases in active transportation from specific transportation investments and resulted in meeting or exceeding the U.S. Surgeon General's recommendation of approximately 30 minutes daily had a health care savings compared to inactive residents. While bike and walk trips to transit are well documented in transportation planning, the public health benefit of transit is not often quantified. Quantifying the benefits of projects that increase the time people spend walking and cycling helps public transportation agencies monitor the effects that all transportation projects have on public health. The behavioral link between the infrastructure improvements and the benefits received will be discussed during this presentation.