

A Health Impact Assessment of Traffic Speed Impacts on a State Highway in Corvallis, Oregon



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Abstract

Benton County Health Services (BCHS) undertook this HIA to provide an assessment of health and safety factors that Oregon Department of Transportation (ODOT) speed investigations traditionally do not consider yet are often impacted by the speed, traffic volume, and design of a road. BCHS used relevant health data to describe the potential impacts to health a change in traffic speed could have on the residents of south Corvallis, particularly for active transportation (walking and bicycling), traffic safety, social networks, and access to goods and services.

The decision to conduct an HIA stemmed from residents' concerns regarding the accessibility and safety of Highway 99W/South Third Street, particularly for those who are the most impacted by a lack of access to resources that support health and wellbeing. The decision makers involved in this assessment included ODOT and the City of Corvallis Public Works Department.



Decision & Goals

Decision Assessed: The decision assessed by this HIA is whether to pursue the adoption of a 25 mph speed limit on a one mile stretch of highway (Highway 99W/South Third Street) in south Corvallis. The decision-makers include ODOT and the City of Corvallis Public Works department.

It is the goal of this HIA to provide complimentary information on health impacts and health inequities that are not currently factored into the process of determining an appropriate and safe speed that accommodates all users.

HIA Goals:

- Provide recommendations to maximize health benefits and minimize health risks related to speed limit and other health outcomes for all residents along South Third Street/ Highway 99 in south Corvallis
- To engage community members and stakeholders in a HIA process on a decision that affects them
- Address community needs and concerns through a comprehensive approach

Scope

The health determinants examined in this HIA include

- Active transportation
- Traffic safety
- Social networks
- Access to goods and services

The assessment of impacts related to a change in traffic speed is limited to the geographic area of south Corvallis, and examines disparities based on four vulnerable population groups: *low-income residents, Latino residents, youth, and older adults.*



Table 1. Vulnerable Populations in south Corvallis

Category	Indicator	Percent of population
Race & Ethnicity	White	90.2%
	Latino	10.4%
Low Income	Population 185% below federal poverty line	41.7%
	Single parent female-headed households	12.5%
Youth	Aged 0-17	20.4%
	University Students	20.6%
Older Adults	Aged 65+	6.5%

Source: US Census Bureau, American Community Survey, 2007-2011

Community Engagement

Community stakeholders' information and voice provided direction for the prioritization of research questions, collection and interpretation of data, and feedback/edits of the final document. Multiple strategies were implemented to actively involve diverse stakeholders throughout the multiple stages of this HIA:

- Mail survey among community residents
- Walkability assessment of Highway 99W/South Third Street
- Focus groups with local mothers
- Community forum on transportation
- Technical Advisory Group



Assessment

- The BMI for south Corvallis adults is 26.5 kg/m², compared to 25.5 kg/m² for adults living in all of Corvallis
- Only about 7% of south Corvallis residents travel by bicycle and 1.6% walk to work
- Lincoln Elementary rates of walking and bicycling are consistently lower compared to other 509J District schools
- Many south Corvallis parents surveyed indicated that volume (53%) and speed of traffic (55%) are issues that affect their decision to allow their children to walk or bike to school
- The rate of pedestrian and bicycle collisions on arterial roads are higher in south Corvallis, when compared to all of Corvallis
- Overall, south Corvallis residents live in close proximity to many destinations with the exception of grocery stores

Recommendations

- Lower the posted speed limit to 25 mph
- Extend the current school zone to include an activated crosswalk near the school
- Road and community design changes:
 - Extend current median with trees
 - Enhance and expand bicycle and pedestrian paths on both east and west sides of the south Corvallis neighborhood
 - Develop and expand wider sidewalks
 - Explore color painted bike lanes
 - Explore posting signage that notifies motorist they are entering a community
- Future data collection and analysis
 - Business sales and visits
 - Assessment of local motorist perceptions and attitudes
 - Bicycling and walking rates by age and race/ethnicity

Lessons Learned

Using previous assessments with target community allowed us to include resident voices in the project without starting "from scratch". Focus groups and surveys on this topic had been completed within the past 2 years. The project team was in communication with ODOT, it was learned after- the fact that a recommendation had been completed on May 15, 2013. ODOT did not state whether or not the HIA findings to date had been considered



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