

Health and Transportation

Washington State Department of Transportation

Tim Sexton, AICP ENV SP

Air Quality, Noise, Energy Policy Manager



AASHTO SCOE Peer Exchange
Washington, DC
May 7, 2014

Overview

Current framework

Past and ongoing efforts

Trends we are watching

Future needs



Current Framework

Governor Inslee commitment to healthy communities

- Results Washington
- WSDOT Strategic Plan and Results WSDOT



Goal 1 STRATEGIC INVESTMENTS

Goal 2 MODAL INTEGRATION

Goal 3 ENVIRONMENTAL STEWARDSHIP

Goal 4 ORGANIZATIONAL STRENGTH

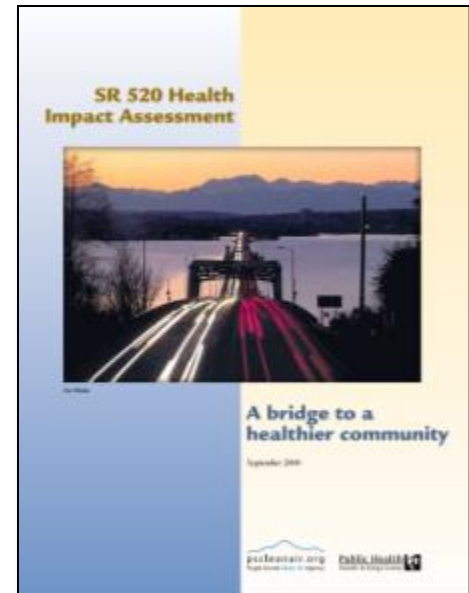
Goal 5 COMMUNITY ENGAGEMENT

Goal 6 SMART TECHNOLOGY

Past and Ongoing Efforts

SR 520 Health Impact Assessment (2009)

- Required by state legislature
- City/County Public Health Department, Clean Air Agency collaborated with WSDOT
- 4 categories of recommendations
 1. Construction management
(reduce construction pollution)
 2. Transit, bicycling and walking
(reduce air pollution)
 3. Landscaped lids and green spaces
 4. Design features
(reduce vehicle pollution from entering lake)



Health Impact Assessment Recommendations

Construction Period

RECOMMENDATIONS	ACTIONS	HEALTH RELATED EFFECTS
1) Reduce construction related pollution	<ul style="list-style-type: none"> » Less polluting vehicles and equipment operating in area » Less construction during peak travel times » Increased transit opportunities 	<ul style="list-style-type: none"> » Reduce asthma exacerbation and respiratory disease risk factors » Decrease cardiovascular disease risk factors » Decrease cancer risk factors

Health Impact Assessment Recommendations

Transit, Bicycling and Walking

RECOMMENDATIONS	ACTIONS	HEALTH RELATED EFFECTS
1) Increase and improve transit service	<ul style="list-style-type: none"> » More frequent transit service with improved accessibility » Decreased roadway congestion and time spent in single occupancy vehicle » Reduced emissions and improved air quality » More alternatives to vehicle use available » Increased mobility options 	<ul style="list-style-type: none"> » Reduce asthma exacerbation and respiratory disease risk factors » Decrease cardiovascular disease risk factors » Decrease cancer risk factors

Exhibit 8. MSAT Emissions Analysis—Daily Project Emissions of Criteria Pollutants (tons per day)

Alternative	Acrolein	Benzene	1,3-Butadiene	Formaldehyde	Naphthalene	POM	DPM
2008 Existing	0.00026	0.01752	0.001368	0.004353	0.000263	2.49E-06	0.0152
2030 No Build	0.00013	0.00990	0.000705	0.002236	0.000183	1.35E-06	0.0135
2030 Preferred Alternative	0.00012	0.00934	0.000658	0.002020	0.000179	1.33E-06	0.0132

Exhibit 6. Summary of Construction Air Quality Effects by Area

Area	Peak Year	Annual Emissions in Tons/Year				
		CO	VOC	NOX	PM10	PM2.5
Evergreen point Bridge and Eastside Transition Areas	2012	65.9	8.4	105.9	15.7	7.8
West Approach Area	2014	24.1	3.3	37.5	8.2	3.4
Portage Bay Bridge Area	2014	23.3	3.2	34.4	7.8	3.2
Montlake Interchange and Bascule Bridge Areas	2014	16.4	2.3	23.1	13.7	4.1
I-5 Interchange Area	2017	24.6	3.3	27.1	6.0	2.6

Past and Ongoing Efforts

WSDOT- WA Department of Health (DOH) Partnership

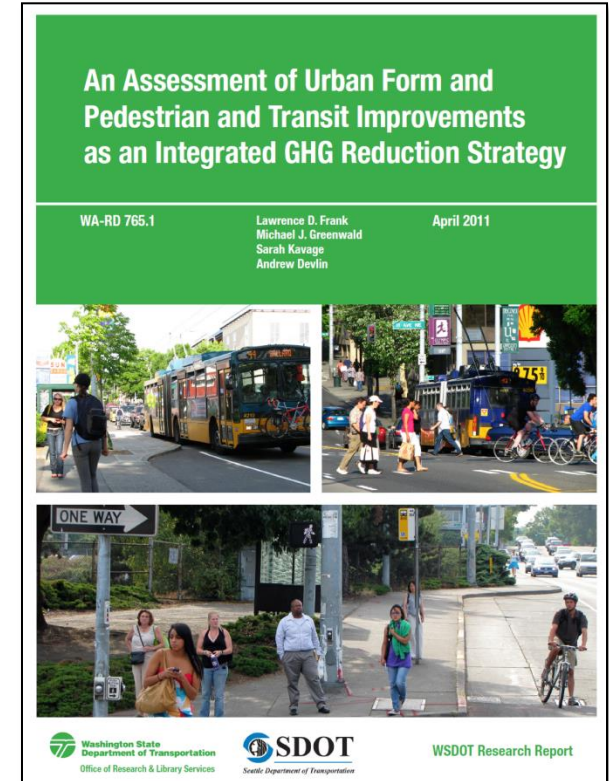
- Leadership team for CDC grant to reduce chronic disease: *Communities Putting Prevention to Work Program*
- WSDOT and DOH received US Council on Active Aging Award for the [Active Community Environments Program](#) that helped pass Complete Streets policies across the state



City of SeaTac's Safe & Complete Streets Plan is example of grant program work.

Past and Ongoing Efforts

- Practical Design
 - Multimodal solutions and stakeholder engagement
- Safe Routes to Schools
 - Improve conditions schools
- Bicycle Safety Education Program Partnership
 - Bike and pedestrian training for adults and teen drivers
- Pedestrian and Bicycle Safety Program
 - Improve risk locations and fund bike share programs
- Research
 - Promote understanding of connections between pedestrian investment, land use, transit, and VMT
- Sustainability Program
 - Conserve fuel and reduce emissions



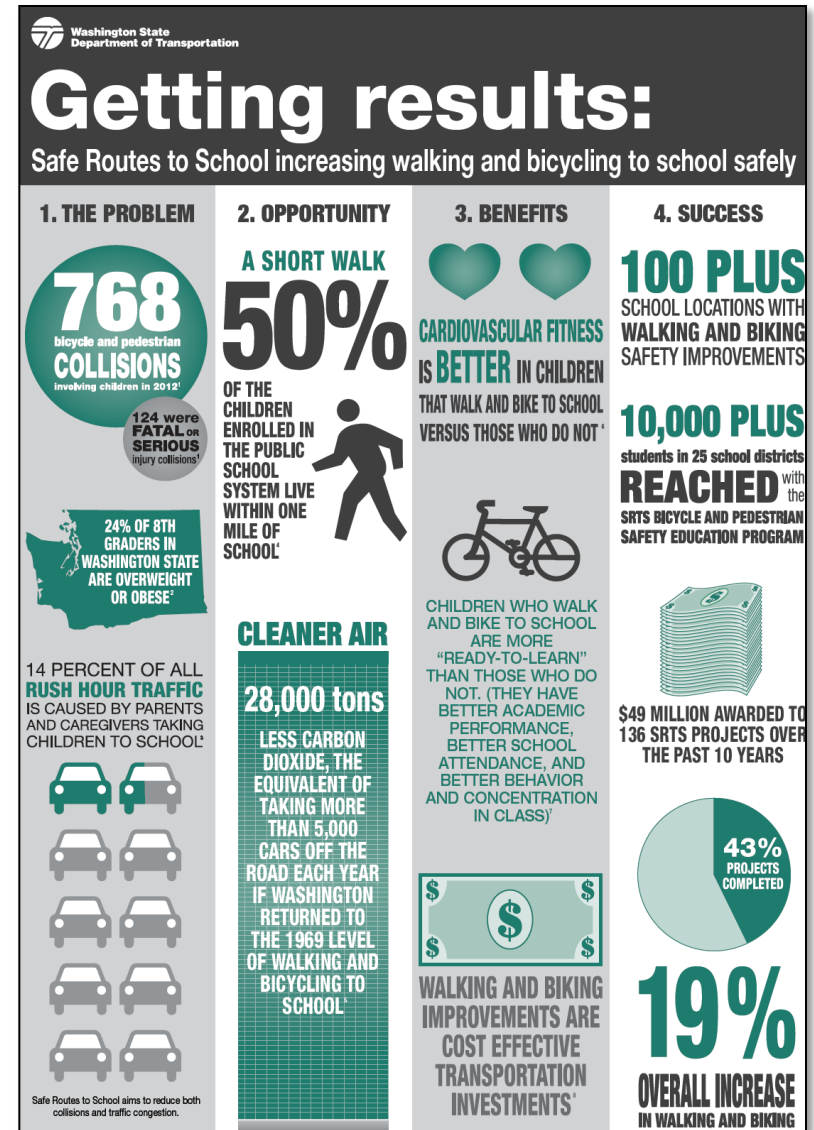
Trends We are Watching

Washington

- Obesity rates, esp. for young people
- Increasing bike/ pedestrian to traffic crashes
- Aging population projected to increase

National

- Increase in children walking to school
- Vehicle pollution and morbidity/mortality
- Related work by FHWA



Trends We are Watching



A holistic approach to health:... DOTs across the country are already leaders in the well-established topics of safety and air quality, but this white paper focuses in particular on two emerging topics: active transportation and access to healthy destinations.

- FHWA Statewide Transportation Planning for Healthy Communities (2014)

Future Needs

- **Analytical tools** to evaluate connections between transportation and health

Example: Evaluate connection between transportation choices and health outcomes

- **Policy/procedural mechanisms** for incorporating health into planning, project development, construction, and for addressing funding constraints

Example: Improve connections between HIA methods and outcomes to NEPA/regulatory requirements and process that addresses similar issues

- **Clarify role of state DOT** and partner agencies to promote health

Example: health departments, transit agencies, community stakeholders

- **Educate public health professionals** about transportation planning and project development processes

Example: Help frame feedback to support transportation project decision-making