

Okanagan Valley Transportation Symposium

Workshop #2 Active Transportation Overview

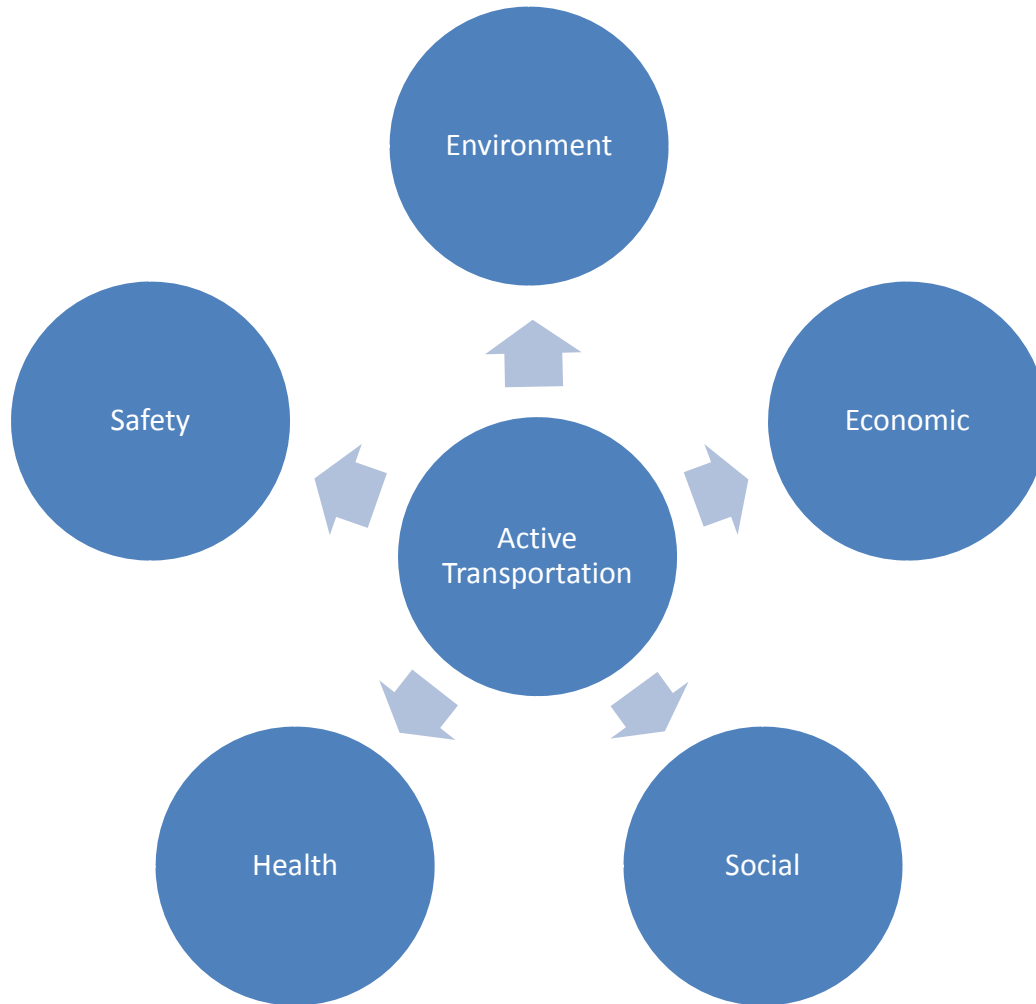
Brian Patterson, MCIP
September 16, 2011



Agenda

1. Benefits of Active Transportation
2. Roles & Responsibilities
3. Current State of Active Transportation
4. Challenges and Opportunities
5. Ingredients for Success
6. Case Studies
7. Synthesis

Benefits of Active Transportation



Roles & Responsibilities

Local Governments

- Primary Responsibility on Municipal Roads

Provincial Government

- Primary Responsibility on Highways
- BC MOT Cycling Policy
- Cost Sharing Opportunities

Federal Government

- Cost Sharing Opportunities

Roles & Responsibilities

BC MOT Cycling Policy

1. **Provisions for cyclists** are made on all new and upgraded provincial highways
2. BC MOT will involve cyclist interests and local governments in highway planning consultations
3. The Ministry will plan, design, and build for the **appropriate type of cyclist** based on the type of facility
4. **Cost** will be managed within normal business practices and annual budgets
5. **Uniform signing and marking** will be provided for cyclists on all provincial highways
6. Cycling Policy will be **monitored** on a regular basis

Roles & Responsibilities

BC MOT Cycling Policy

*To integrate bicycling by providing **safe, accessible and convenient** bicycle facilities on the Province's highways and to **support and encourage** cycling. Cycling supports the Ministry's mandate to provide British Columbians with an **integrated multi-modal transportation system***



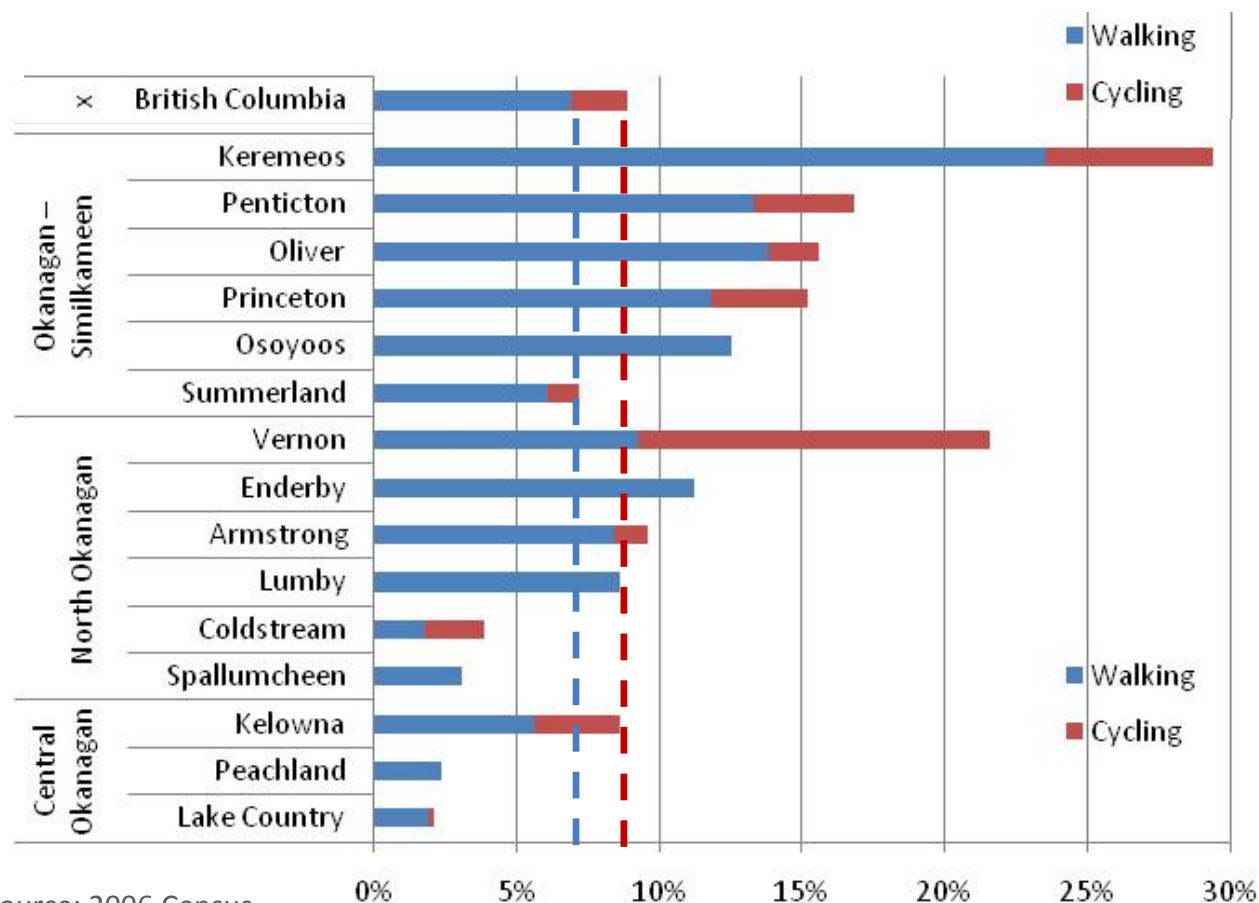
Current State of Active Transportation

- Cycling is permitted on all highways in this corridor
- Lack of facilities for pedestrians and cyclists on shoulders and at crossing points on urban highways
- Narrow or no shoulders for pedestrians and cyclists on rural highways



Current State of Active Transportation

Percentage of **trips to work** made by walking or cycling



Source: 2006 Census

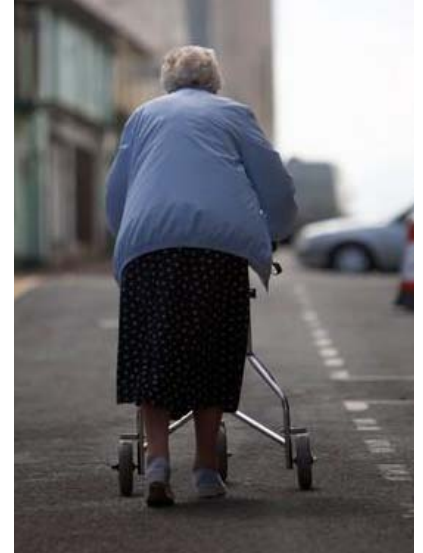
Current State of Active Transportation

Percentage of **all trips** made by walking or cycling

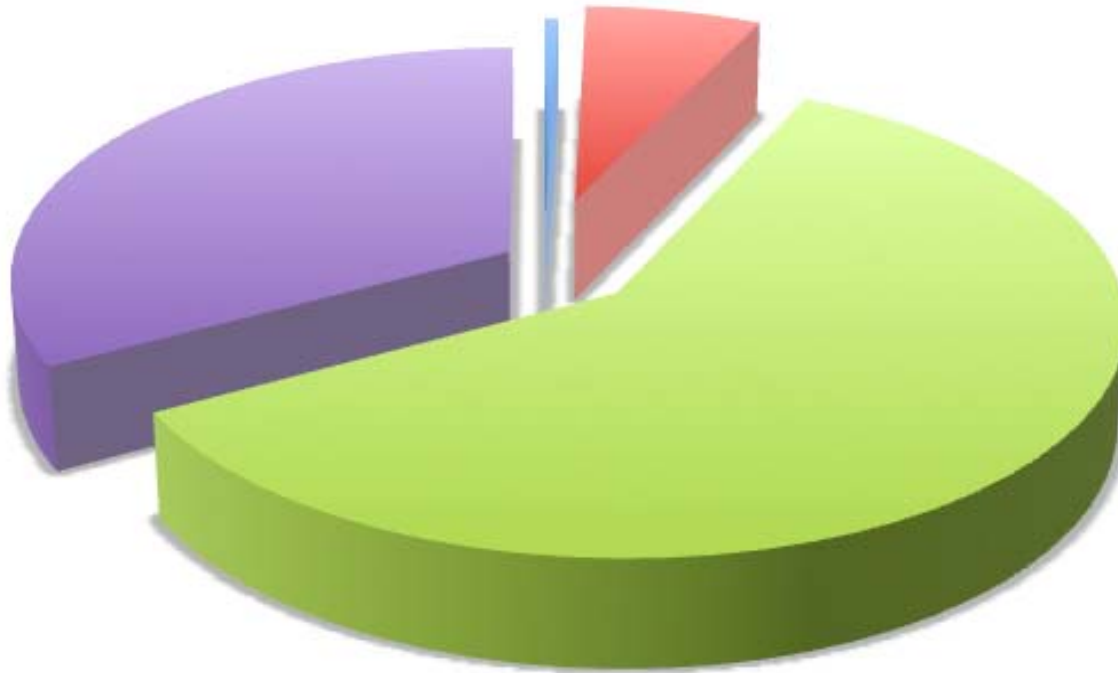
Travel Mode	Travel Mode Percentages						Total Trips
	Night 0000-0559	AM Peak 0600-0859	Midday 0900-1459	PM Peak 1500-1759	Evening 1800-2359	Total (%)	
Auto Driver	83.5%	64.9%	74.1%	68.5%	66.8%	69.8%	525,065
Auto Passenger	8.8%	16.6%	13.6%	19.0%	27.2%	17.6%	132,249
Commercial Vehicle Driver	2.0%	1.2%	0.9%	0.7%	0.2%	0.9%	6,418
Transit Bus	0.5%	1.4%	1.1%	1.2%	0.6%	1.2%	8,717
School Bus	0%	5.2%	1.5%	2.9%	0.2%	2.4%	17,982
Bicycle	2.2%	2.8%	1.0%	2.0%	1.4%	1.7%	13,098
Roller blades/skateboard	0%	0.2%	0.1%	0.1%	0%	0.1%	628
Walk	2.6%	6.6%	6.2%	4.3%	2.6%	5.2%	38,942
Taxi/airport Shuttle	0%	0%	0%	0.1%	0%	0%	242
Others	0.3%	0.6%	1.0%	0.8%	0.5%	0.8%	5,875
Auto- Combo Driver/Pass	0%	0.1%	0.2%	0.2%	0.4%	0.2%	1,566
Other combo	0%	0.4%	0.3%	0.3%	0.1%	0.3%	2,001
Trip Totals	8,676	148,317	267,057	201,677	114,768	100%	752,720

Source: CORD / RDNO Travel Diary Survey

Types of Active Transportation



Types of Cyclists



■ Strong and Fearless

■ Enthusused and Confident

■ Interested but Concerned

■ No Way, No How

Challenges and Opportunities

- Improve shoulders
- Develop separated facilities
- Regular maintenance of shoulders and pathways
- Improve pedestrian and cyclist safety at intersections
- Develop parallel alternate routes
- Economic development opportunities



Challenges and Opportunities

Quality Infrastructure

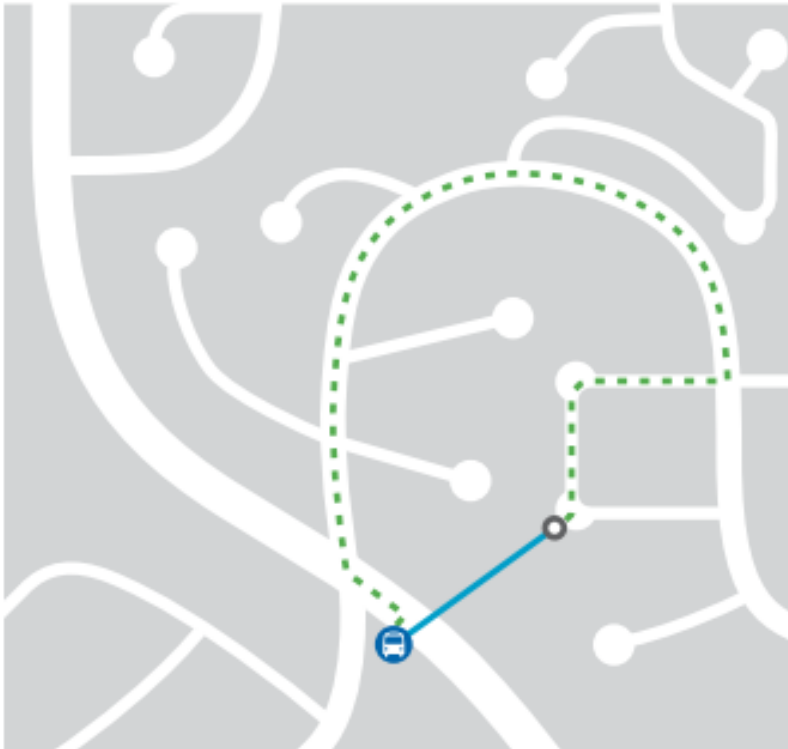


Challenges and Opportunities

Road Network Patterns

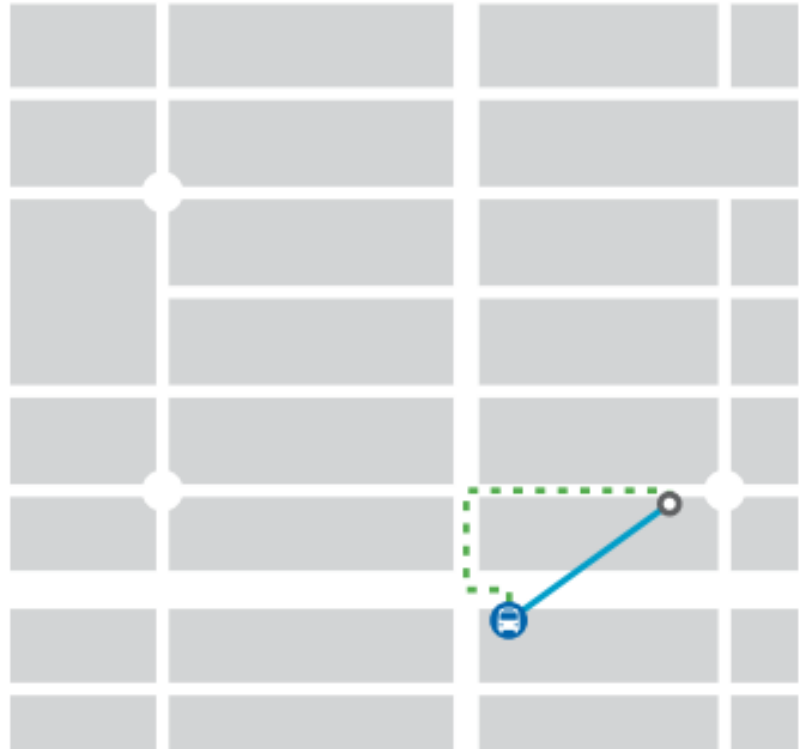
— Crow-fly distance
175 metres

--- Street network distance
1000 metres



— Crow-fly distance
175 metres

--- Street network distance
265 metres



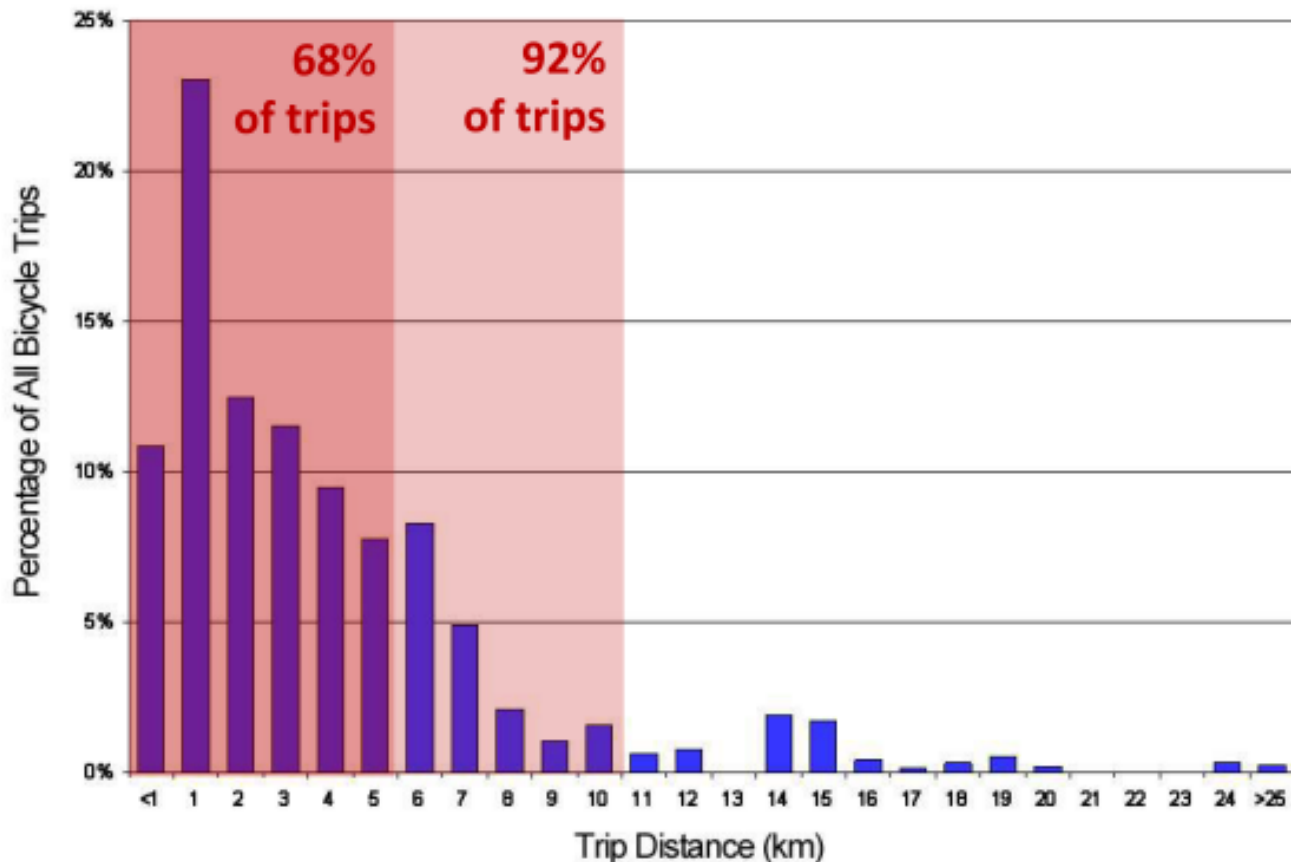
Challenges and Opportunities

Land Use Density and Mix



Challenges and Opportunities

Distance



Based on 105,800 bicycle trips, from 2004 Travel Diary Survey, Translink

Challenges and Opportunities

Distance

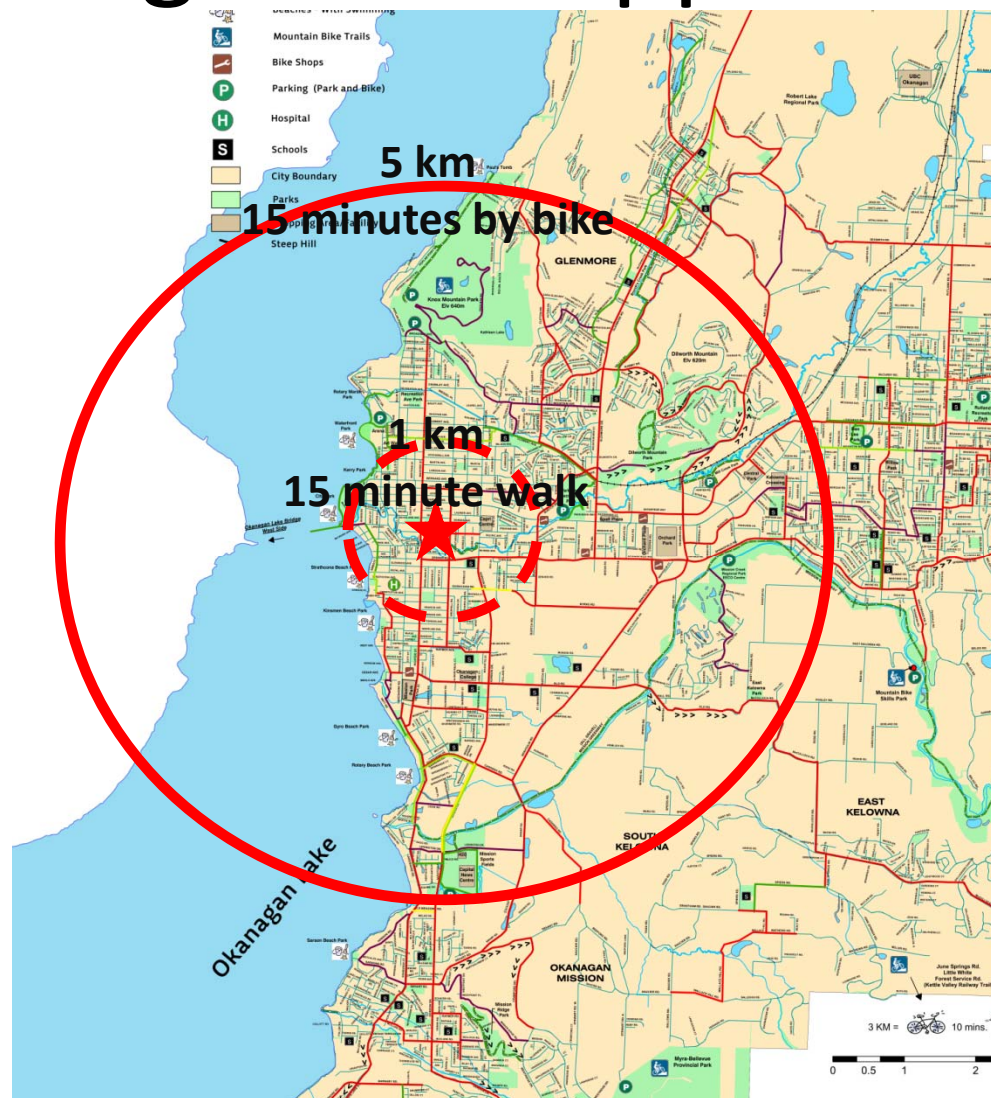
Mode	Average Trip Time (Minutes)					Total
	Night 0000- 0559	AM Peak 0600- 0859	Midday 0900- 1459	PM Peak 1500- 1759	Evening 1800- 2359	
Auto Driver	17.8	15.9	14.2	16.5	14.7	15.2
Auto Passenger	16.3	12.7	14.1	15.1	13.9	14.1
Transit Bus	20.9	27.4	26.9	31.3	30.5	27.9
School Bus	0	23.9	21.5	24.8	28.6	23.7
Bicycle	24.4	17.1	14.9	20.3	19.6	18.0
Walk	15.6	14.0	14.5	17.2	14.1	15.0
Others	22.5	21.6	20.8	19.2	18.6	20.4
Auto-Combo Driver/Pass	0	10.4	22.1	13.0	14.7	16.7
Other Combo	0	22.7	19.2	20.7	23.9	20.3
Total	17.8	15.9	14.6	16.8	14.7	15.5

It's not that far!

- Average bicycle trip: 18 minutes = 5-6 km
- Average walking trip: 15 minutes = 1 km

Challenges and Opportunities

Distance



Challenges and Opportunities

Topography



Challenges and Opportunities

Climate



Challenges and Opportunities

Safety

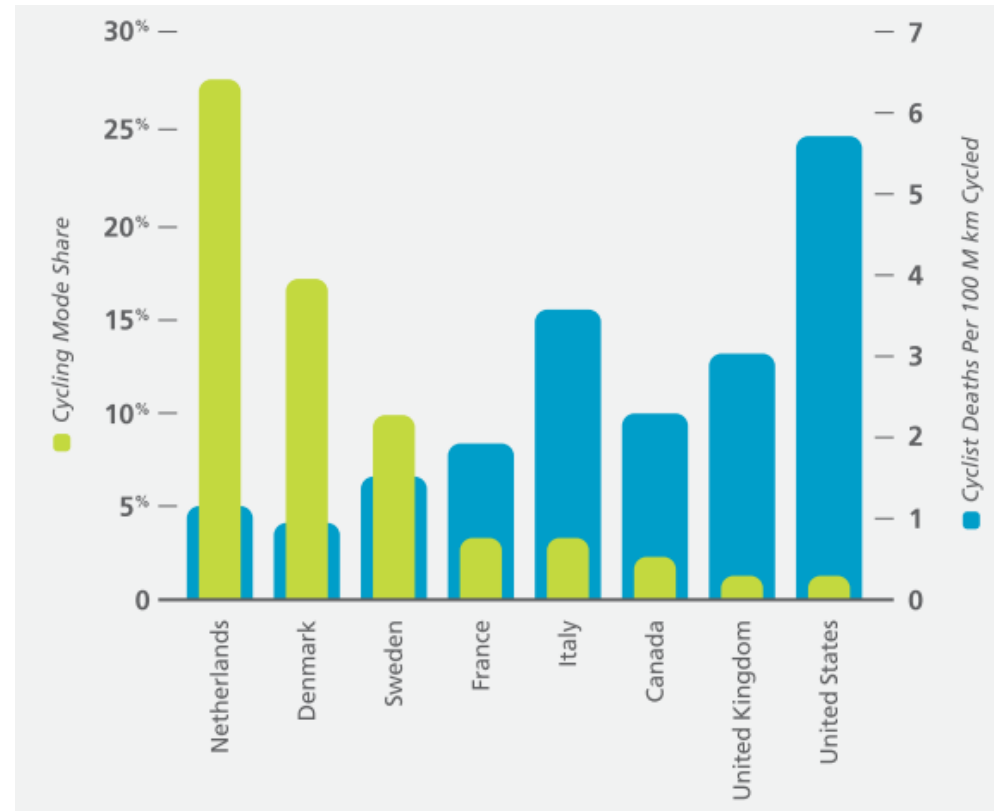
- Perception of lack of safety is a major deterrent to cycling

Motivators	Deterrents
Separated from vehicle noise and pollution	Ice or snow
Beautiful scenery	Lots of car, bus & truck traffic
Separated paths from traffic	Glass or debris
Route is flat	Vehicles drive faster than 50 km/h
Faster than other modes	Motorists driving
Distance less than 5 km	Risk of injury
Trip in daylight hours	Rain
Transit integration	Slick surfaces
Centre line on pathways	Poor lighting
Secure indoor bike storage	Need to carry bulky or heavy items

Challenges and Opportunities

Safety

- “Safety in Numbers”
- Communities with higher levels of cycling have fewer fatalities



Ingredients for Success - Corridors



Clear
Sidewalks



Landscape Boulevards



Separated Bicycle Lanes



Off-Street Pathways



Accessible Curb Ramps



Bicycle Lanes



Neighbourhood
Bikeways

Ingredients for Success - Crossings



Crosswalks



Narrower Crossings



Bike Boxes



Enhanced Crosswalks



Accessible Pedestrian Signals



Bicycle Activated Push Buttons

Ingredients for Success - Amenities



Street furniture



Wayfinding



Signage



Bicycle Parking



Street Lighting

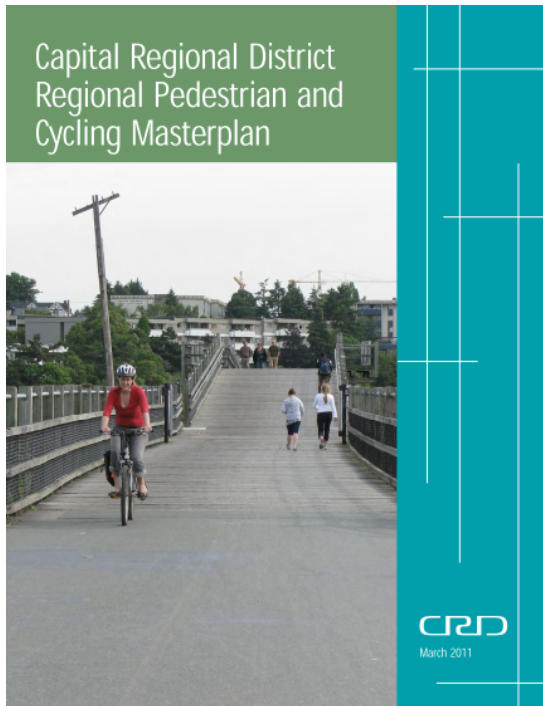


Building Design



Showers / Lockers

Regional Case Study: CRD PCMP



Goal 1 More walking and cycling

Goal 2 Safer walking and cycling

Goal 3 More places to walk and cycle

Regional Case Study: CRD PCMP

Engineering

Education &
Encouragement

Enforcement

Evaluation &
Planning

Regional Case Study: CRD PCMP

Engineering



1. Primary Cycling Network
2. Improve Regional Walkability
3. Regional Consistency and Connectivity

Education &
Encouragement

Enforcement

Evaluation &
Planning

Regional Case Study: CRD PCMP

Engineering

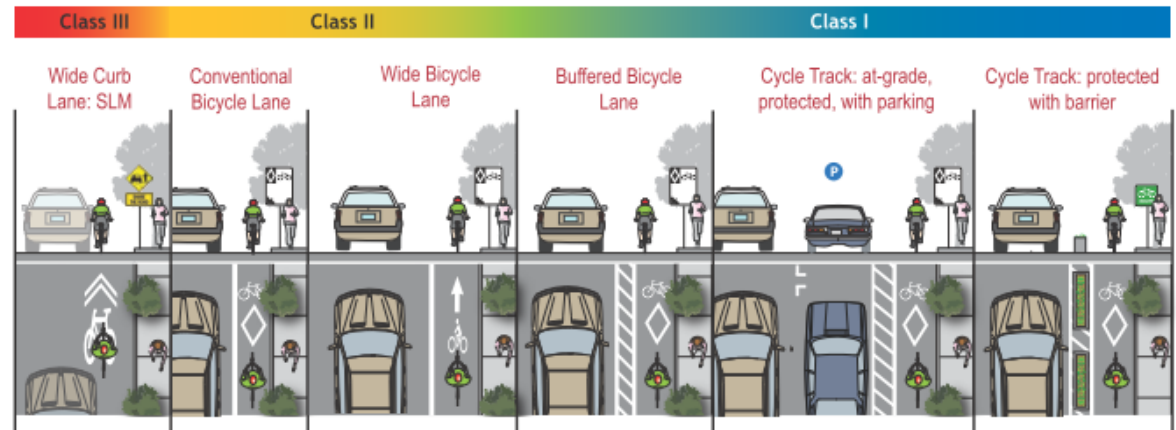


1. Primary Cycling Network
2. Improve Regional Walkability
3. Regional Consistency and Connectivity

Education &
Encouragement

Enforcement

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Regional Case Study: CRD PCMP

Engineering

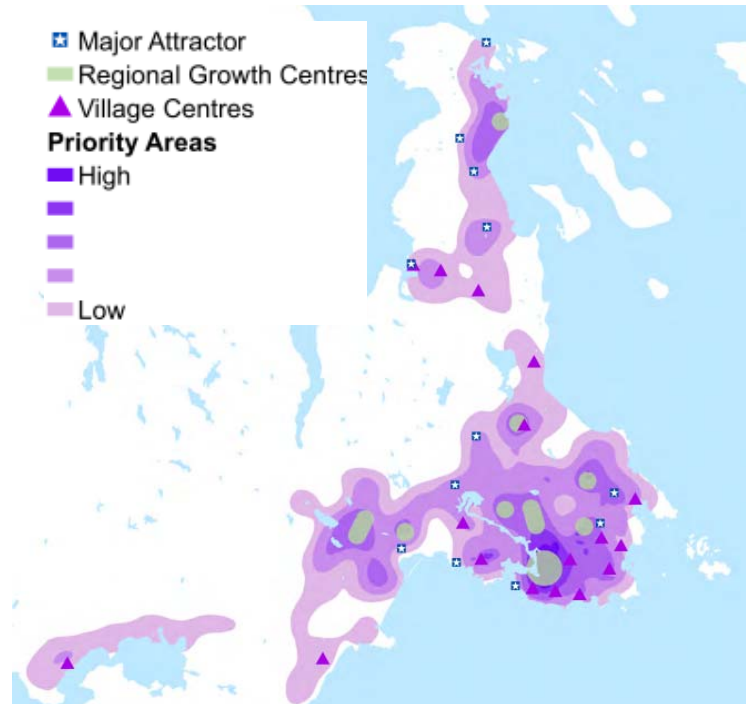


1. Primary Cycling Network
- 2. Improve Regional Walkability**
3. Regional Consistency and Connectivity

Education &
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Regional Case Study: CRD PCMP

Engineering

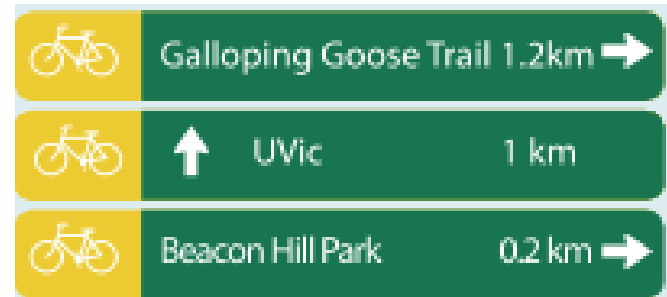


1. Primary Cycling Network
2. Improve Regional Walkability
3. **Regional Consistency and Connectivity**

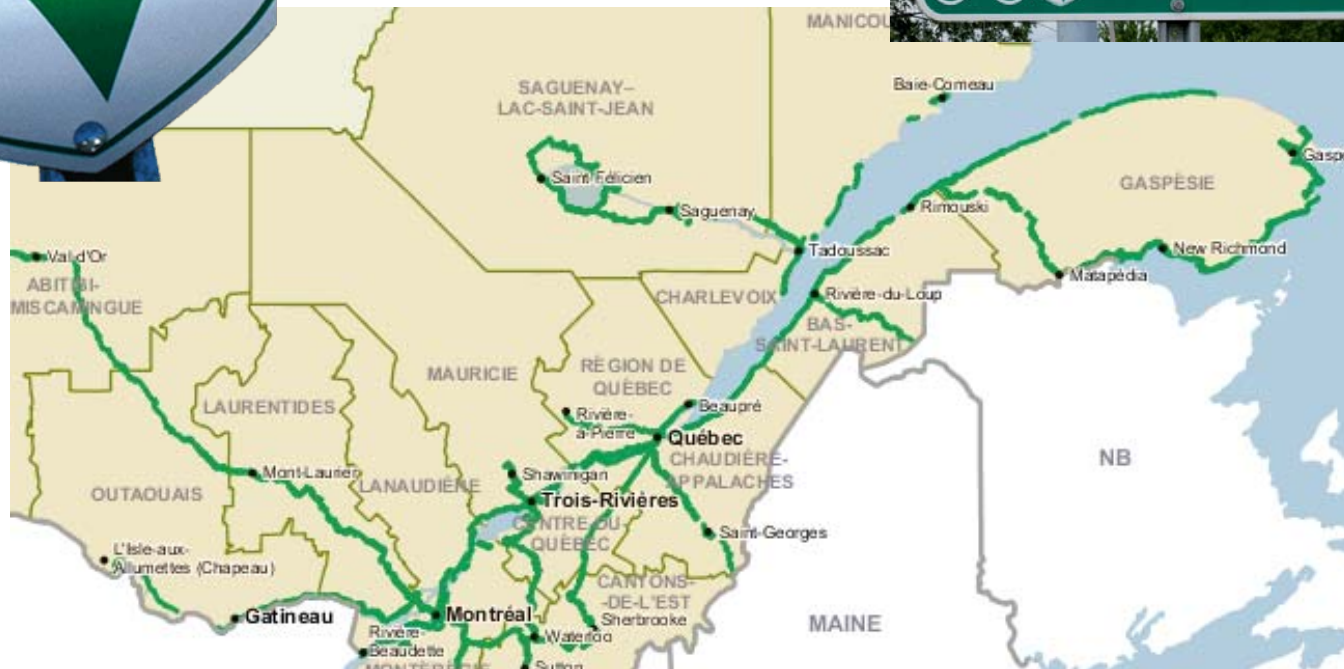
Education &
Encouragement

Enforcement

Evaluation &
Planning



Provincial Case Study: Route Verte



Provincial Case Study: Route Verte



Paved Shoulders



Bicycle Lanes



Shared Roadways



Off-Street Pathways

Synthesis

1. Building blocks are in place!
2. Coordinated land use and transportation
3. High quality facilities
4. Multi-modal integration
5. Regional consistency and connectivity
6. Improved crossings