BC Communities
Road Safety Survey

Safe Roads & Communities Working Committee of the BC Road Safety Strategy

programs Committee
safety
data community more enforcement
other BC funding staff
Provincial Regional
Ministry activities
District Population
City police input provide any driving
projects ICBC including Survey
RMP
access all budget question speed
Traffic issues roads small
resources Lack pedestrian stakeholders
Village improvements collision
support annual municipality concerns
reported improve
road municipalities transportation

RAD 2015-172
December 2015
British Columbia’s goal is to have the safest roads in North America by 2020. In line with the Vision Zero movement, the ultimate goal is to eliminate motor vehicle crash fatalities and serious injuries. The British Columbia vision will be achieved by: targeting key areas of concern; advancing the Safe System Approach; continuing with the implementation of the British Columbia Road Safety Strategy; and by enhancing road safety research capacity in the province. Improved communication and engagement with all British Columbia citizens, particularly local communities, stakeholders, and First Nations, is essential for moving toward Vision Zero.

The BC Communities Road Safety Survey was designed by the Safe Roads and Communities Working Committee of the BC Road Safety Strategy. The goal was to provide an overview of municipal road safety activities in BC and identify the challenges that may be limiting our collective progress. The survey questionnaire is attached as Appendix A.

A request to complete the survey was sent to representatives of 189 BC municipalities. The survey was conducted on-line and was available for completion from mid-June to mid-July 2015. 81 BC municipalities responded (42.9% participation rate, covering 3.2 million of 4.4 million people in the province); they are listed in Appendix B. Four additional communities participated during survey development; they are also listed in Appendix B. The map below illustrates the geographic distribution of the 81 participating municipalities.

Map showing geographic distribution of British Columbia municipalities that participated in the 2015 BC Communities Road Safety Survey
Most municipalities indicated they want to address road safety issues. Municipal councils, staff and community members consider road safety a priority, and road safety is given priority when selecting transportation projects and upgrades. (Questions 2 and 4)

However, formal road safety program components are rare. Less than a third of municipalities (mainly those with at least 20,000 population) have a formal mandate to improve road safety. Few have developed road safety visions, plans or targets. Less than half of municipalities have committees with a road safety mandate or road safety improvement programs or projects. Larger cities are more likely to have such components in place. (Questions 1 and 3)

The proportions of transportation capital budgets allocated to road safety were highly variable, with a low of 0% and a high of 100%. The average was 18%, but more than half of municipalities allocated less than 8% of their transportation budget to road safety. More than half of municipalities reported having access to external road safety funding and expertise, but internal staff and funding were much less frequently available, with less than one-fifth having internal funding specifically allocated to safety. The most commonly reported challenges to implementing road safety activities were funding and staff with expertise. (Questions 12, 7, 15)

The top two safety issues were vehicle speeds and pedestrian safety, which were identified by more than half of municipalities. The next most important were distracted driving and winter driving, both identified by about one-third of municipalities. (Question 8)

Through the use of check boxes, we asked about 24 potential road safety program elements and found that only three were in place in more than half of the participating municipalities: speed reduction devices; lower residential speed limits; and systems for tracking public comments. Few municipalities had programs for seniors, the disabled or medically unfit, First Nations, or motorcyclists. Larger municipalities were more likely to have some of these elements in place, especially those related to safety data, truck routes, safe routes to school, and pedestrian or cyclist safety. (Question 5)

Similarly, we asked about 12 potential road safety stakeholders that might provide input on road safety and found that police provided input to almost all participating municipalities. Other organizations that provided input to at least half the municipalities included the BC Ministry of Transportation and Infrastructure, the Insurance Corporation of BC, and school districts. Few municipalities received input from health organizations (BC Ambulance Service, BC Coroners Service, Health Authorities). (Question 9)

We asked about 9 potential sources of road safety data and found that most municipalities used public comments and complaints. ICBC and police data were used by about half of municipalities. Almost no municipalities used health data (from BC Ambulance Service, BC Coroners Service, emergency departments, hospitals, or the BC Injury Research and Prevention Unit). (Question 13)
The results were summarized for all participating municipalities. Answers to closed-ended questions were tallied quantitatively. Answers to open-ended questions were reported as text only. For some questions, the results were compared by municipality size, categorized according to the population of the municipality, as follows:

- < 5,000 people (N=43 municipalities participating of 93 requests sent)
- 5,000 to < 20,000 people (N=19 municipalities participating of 56 requests sent)
- ≥ 20,000 people (N=19 municipalities participating of 40 requests sent)

Where there were significant differences, the results are presented by population size category.

The detailed results are presented below in the survey order and with the questions as asked on the survey.

1. Does your municipality have a formally articulated mandate to improving road safety?

<table>
<thead>
<tr>
<th>Population</th>
<th>Yes N (%)</th>
<th>No N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5,000</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>5,000 to &lt; 20,000</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>≥ 20,000</td>
<td>13</td>
<td>5</td>
</tr>
</tbody>
</table>

2 municipalities did not answer this question.

Only 29% of municipalities had a formally articulated mandate to improve road safety.

Larger municipalities were significantly more likely to have a road safety policy (p < 0.001), including 72% of municipalities with at least 20,000 people.
2. In your opinion, how much of a priority is road safety for each of the following:

<table>
<thead>
<tr>
<th>Priority</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council / Political</td>
<td>3</td>
<td>4</td>
<td>18</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Staff / Technical</td>
<td>3</td>
<td>1</td>
<td>15</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>Community at Large</td>
<td>4</td>
<td>4</td>
<td>20</td>
<td>25</td>
<td>28</td>
</tr>
</tbody>
</table>

Road safety was considered a priority in most municipalities, by all stakeholders, including councils, municipal staff and community members.

There were no differences in road safety prioritization by municipality population size.
3. Does your municipality have any of the following in place or under development?

<table>
<thead>
<tr>
<th></th>
<th>In place</th>
<th>Under development</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><strong>Road Safety Vision</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>2</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>3</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>6</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td><strong>Road Safety Plan</strong></td>
<td>13 (16.0%)</td>
<td>11 (13.6%)</td>
<td>57 (70.4%)</td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>3</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>4</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td><strong>Road Safety Targets</strong></td>
<td>9 (11.1%)</td>
<td>6 (7.4%)</td>
<td>66 (81.5%)</td>
</tr>
<tr>
<td>(e.g., fatality or injury reduction)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>2</td>
<td>2</td>
<td>39</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>2</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>5</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td><strong>Committee / Working</strong></td>
<td>23 (28.8%)</td>
<td>4 (5.0%)</td>
<td>53 (66.3%)</td>
</tr>
<tr>
<td>Group with Road Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>3</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>7</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>13</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Road Safety Improvement</strong></td>
<td>33 (40.7%)</td>
<td>17 (21.0%)</td>
<td>31 (38.3%)</td>
</tr>
<tr>
<td>Program or Projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>10</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>10</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>13</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Few municipalities had road safety visions, plans, or targets. Somewhat more had committees or working groups with a road safety mandate, and 41% had programs or projects in place.

Larger municipalities were significantly more likely to have each of these strategies in place (p < 0.05), and 68% of municipalities with at least 20,000 people had committees or working groups with a road safety mandate and road safety improvement programs or projects in place.
4. To what degree is road safety a consideration in the selection of transportation projects / upgrades?

![Bar chart showing the degree of consideration for road safety.

Mean = 3.9
SD = 1.0

<table>
<thead>
<tr>
<th>Degree of consideration</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road safety a consideration</td>
<td>1</td>
<td>4</td>
<td>24</td>
<td>27</td>
<td>24</td>
</tr>
</tbody>
</table>

1 municipality did not answer this question.

Road safety received a high degree of consideration in the selection of transportation projects / upgrades in most municipalities.

There were no differences by municipality population size.
5. Are you aware of any of the following in place in your community? Check items that are present in your community.

### Number of municipalities with the following in place

<table>
<thead>
<tr>
<th>Data</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collision data analysis</td>
<td>5</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Adequate collision data systems</td>
<td>2</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Network screening (e.g., collision-prone locations)</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Other safety data (e.g., speeds, tickets, conflicts)</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Policies &amp; systems</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems for tracking public comments</td>
<td>17</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>City bylaws in support of road safety</td>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Staff policies in support of road safety</td>
<td>9</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Strategic traffic safety enforcement</td>
<td>7</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Road safety audits</td>
<td>6</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Public outreach / engagement</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>In-service road safety reviews</td>
<td>1</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trucks</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck route networks</td>
<td>8</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Dangerous goods route network</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Commercial vehicle inspection programs</td>
<td>7</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Speeds</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed reduction devices including traffic calming</td>
<td>16</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Lower residential speed limits</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Policies that encourage roundabouts</td>
<td>13</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerable demographics</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe routes to school programs</td>
<td>7</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Seniors safety programs</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Disabled / medically unfit safety programs</td>
<td>21</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>First Nations safety programs</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vulnerable transport modes</th>
<th>Population &lt; 5,000, N=43</th>
<th>Population 5,000 to &lt; 20,000, N=19</th>
<th>Population ≥ 20,000, N=19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian safety programs</td>
<td>9</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Cyclist safety programs</td>
<td>5</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Motorcyclist safety programs</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

The most commonly reported programs were speed reduction devices, lower residential speed limits, and public comment tracking systems. The least commonly reported programs were First Nations safety programs, motorcyclist safety programs, and policies that encourage roundabouts.

Larger municipalities were significantly more likely to have each of the above in place (p < 0.05). The following items were the only ones with no significant differences by municipality size: commercial vehicles inspection programs; lower residential speed limits; policies that encourage roundabouts; disabled / medically unfit safety programs; First Nations safety programs; motorcyclist safety programs. Most of these were rarely implemented programs.
6. List any other road safety programs or initiatives in your community.

The responses to this open-ended question were diverse, with no particular initiative dominant.

Answers are categorized and summarized below.

**Speed Management**
- Traffic calming
- Community speed watch
- Speed limit setting
- Roadside speed monitoring devices

**Vulnerable Road Users**
- Bike rodeo
- Pedestrian crossing upgrades (with ICBC program)
- Pedestrian safety campaigns
- Supplementary oversized school zone signs
- Child seat checks

**Enforcement**
- Annual performance plan
- By-law development

**Engineering**
- Participation in ICBC Road Improvement Program
- Traffic signal timing analysis
- Asset management plan
- Road marking and signage review (with ICBC)
- Intersection/Roundabout education
- Emergency access route planning

**Partners** – BCAA, RCMP, School District, BC Transit, post-secondary schools

**Programs** – Distracted driving, safe pedestrians, Alexa’s bus, Counterattack, Operation Red Nose, School Safety, Hey Neighbour – Slow down!, 3- strikes you’re out

**Response to complaints**

**Discussions with provincial government**

**Road safety committee**

**Safer City Program**

**Innovation** – Data drive approach to Crime and Traffic Safety
7. What road safety resources does your municipality currently have access to?

Most municipalities reported access to external road safety funding (60%) and expertise (58%), but fewer reported access to internal staff (40%) or funding (23%).

Larger municipalities were significantly more likely to have access to each of these resources ($p < 0.01$).

Other road safety resources mentioned:
- close liaison with RCMP;
- specific capital funding on a project-by-project basis;
- specific funding is planned, funds available for safety improvements associated with other programs;
- Ministry of Transportation and Infrastructure
8. What would you identify as the top three road safety issues in your community?

The top two safety issues, reported by just over 50% of municipalities, were vehicle speeds and pedestrian safety. Distracted driving and winter driving were the next most frequently noted, reported by just over 30% of municipalities.

There were no differences by municipality size for the following issues identified as top safety issues: vehicle speeds; distracted driving; commercial vehicles; and not following the rules of the road. Larger municipalities were significantly more likely to identify the following as top safety issues (p < 0.05): pedestrian safety; cyclist safety. Smaller municipalities were significantly more likely to identify the following as top safety issues (p < 0.05): winter driving; wildlife collisions.

Other issues listed:
- speed relative to road conditions
- poor road conditions
- motorized scooter / wheelchair traffic
- senior mobility
- shoulder maintenance
- road corridor vegetation management
- settling pavement
- poor traffic light modulation
- parking pressures
- angle parking

The top three road safety issues in your community are:

- Vehicle speeds
- Pedestrian safety
- Distracted driving

The top three road safety issues identified by population size are:

- Population < 5,000, N=43
- Population 5,000 to < 20,000, N=19
- Population ≥ 20,000, N=19
9. Which stakeholders below provide input on road safety issues in your community?

The key stakeholders with input on road safety in most communities were the RCMP / police, the Ministry of Transportation and Infrastructure, ICBC and school districts. There was relatively little input by health officials, including BC Ambulance, BC Coroners Service or Medical Health Officers and Health Authority staff.

There were no differences by municipality size in input from the following stakeholders: BC Ministry of Transportation and Infrastructure; BC Ambulance; regional districts; First Nations community; Medical Health Officers or Health Authority staff. Larger municipalities were significantly more likely to identify the following stakeholders as providing input (p < 0.05): RCMP / police; ICBC representatives; school districts (K - 12); post secondary institutions. Medium size municipalities were significantly more likely to identify the following stakeholders as providing input (p < 0.05): fire services; other local governments.
10. **List other stakeholders** (public, government or industry) who provide input on road safety issues.

In addition to the list of stakeholders queried in Question 9, many other diverse stakeholders were reported as providing input at the individual community level.

Answers to this question are categorized and summarized below.

**Community**
- Resident groups – seniors
- Parent advisory groups
- Active transportation policy council
- Speed watch volunteers
- Mothers Against Drunk Driving (MADD)

**Business/Industry**
- Industry representatives
- Business improvement associations
- Tourism groups/operators
- Board of Trade

**Transportation**
- TransLink/BC Transit/Coast Mountain Bus
- Railways
- BC Trucking Association
- Commercial motor vehicle safety enforcement inspectors

**Others**
- Engineering consultants
- Bylaw and parking enforcement
- Watershed protection committee
- BC Automobile Association (BCAA)
- Media
- RoadSafetyBC Staff
- Canadian National Institute for the Blind (CNIB)
- HUB Your Cycling Connection
- Search and Rescue
- Corrections Canada
11. What was your agency's average annual capital budget for transportation projects/upgrades over the last three years?

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Municipalities</td>
<td>$3.11 million</td>
<td>$10.0 million</td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>$0.19 million</td>
<td>$1.4 million</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>$0.98 million</td>
<td>$2.1 million</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>$12.47 million</td>
<td>$2.2 million</td>
</tr>
</tbody>
</table>

9 municipalities did not answer this question.

As expected, transportation budgets were strongly related to population size, with larger municipalities significantly more likely to spend more on transportation projects and upgrades (p < 0.001).

**Number of municipalities with various 3-year average annual capital budgets for transportation projects/upgrades**

![Bar chart showing the number of municipalities with various 3-year average annual capital budgets for transportation projects/upgrades](chart.png)
12. **Approximately what percentage of your annual capital budget (over the past 1-3 years) was targeted to improve road safety?**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Municipalities</td>
<td>18.2%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Population &lt; 5,000</td>
<td>13.7%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Population 5,000 to &lt; 20,000</td>
<td>17.1%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Population ≥ 20,000</td>
<td>30.6%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

12 municipalities did not answer this question

The proportion of capital budgets reported as targeted to road safety was highly variable, ranging from 0 to 100%. The proportion reported averaged 18%, though many reported less: half of municipalities reported allocating less than 8% of their budget to road safety.

Larger municipalities targeted a greater proportion of their transportation budget to road safety, but the differences were not statistically significant (p = 0.10).

![Number of municipalities with various percentages of their transportation capital budgets targeted to road safety](image)
13. What sources of safety data do you use?

Municipalities dominantly reported using public comments / complaints (70%), ICBC data (54%) and police data (49%) as sources of safety information. Health data was rarely used (i.e., Ambulance Service data, Coroners Service data, emergency or hospitalization data, or BC Injury Research and Prevention Unit data).

Larger municipalities were significantly more likely to use the following safety data sources (p < 0.05): ICBC data; police data; proxy data; coroner’s data. There were no other differences by municipality size.

Other data sources mentioned:
- radar speed reader data
- our own surveys and observations
- staff observations
- consulting engineers
- consultants recommendations
- not sure ... if we are concerned we talk to RCMP or Ministry of Highways
- not aware most of these resources
14. **What other types of data or analysis do you need (or need better access to) in support of your road safety activities?**

This open-ended question allowed municipalities to list data sources they needed in addition to those queried in Question 13. Municipalities mentioned that they currently use collision, traffic volume and speed data, as well as road safety audits and network screening to support their road safety activities. However, they also stated the need for improved and better access to collision and speed data. Feedback/lessons learned on improved transportation facilities from other jurisdictions and input from the BC Ministry of Transportation and Infrastructure were also mentioned as missing pieces that could support their road safety activities.

Answers to this question are categorized and summarized below.

**Collision data and analysis**
- **Improved data from ICBC, including**
  - More accurate collision data (location and description)
  - Collision data that is easier to search for segments and intersections
  - Collisions related to transit vehicles
  - Collision rate benchmarks, based on volumes or road classification to compare observed safety performance
  - ICBC comments on subdivisions
  - ICBC traffic control signage and roadway marking audit of streets every 5-10 years
- **Improved RCMP collision data accuracy (efforts initiated)**
- **Joint ICBC and Police collision data**
  - ICBC and Police collision data automatically generated (as opposed to municipalities requesting the data) and delivered to municipalities on an annual basis in the form of an annual report
- **Collision data including city-wide trends and assessment of over-represented collision types at particular locations**
- **Collision incidents not reported to ICBC or Police**
- **Collision data from Ambulance, Health, Fire, Coroners', and BC Injury Research and Prevention Unit**
  - Traffic related injury data (severity, emergency or hospitalization)
  - Collision incidents of non-motorized users not involving vehicles, such as pedestrian/cyclists collisions

**Traffic data and analysis**
- **Traffic counts data**
  - Vehicles and trucks count data
  - Pedestrian and cyclist count data
- **Speed data**
  - Permanently mounted Speed Cameras at key locations
  - Truck speeds
  - Data/analysis to support reducing speed limit and undertaking driver behaviour programs for speeding
Traffic safety engineering analysis

- Road safety audits of problem locations to confirm type of issue(s) and contributing factors, and to identify appropriate countermeasures to improve safety
- Exposure data (i.e., Vehicle Kilometers Traveled) obtained from the Travel Demand Forecasting Models to develop Collision Prediction Models
- Network Screening Studies

Lessons learned from improved transportation facilities

- Feedback on improved transportation facilities in other jurisdictions
  - What has worked best?
  - Effectiveness vs. cost
  - Lessons learned
  - Data sets from other similar sized municipalities (e.g., policies, procedures, etc)

Input from the BC Ministry of Transportation and Infrastructure

- Development of Provincial best practices to mitigate particular road safety issues
- Provincial annual projects and budgets information to help plan for activities (cost sharing / joint procurement)
- Support from Ministry to assist in reducing the speed through the community

Funding for road safety improvements

- Continued (and/or increased) support of the Government and ICBC to be eligible for funding of safety improvements
15. Please indicate any challenges in implementing your municipality’s road safety activities.

In this open-ended question, the participating municipalities identified a broad array of specific factors as challenges in implementing their road safety initiatives. The most commonly identified impediments were related to financial constraints; these were raised by a majority of municipalities.

Answers to this question are categorized and summarized below.

Financial Constraints
- Limited budget
- Staff/manpower shortage
- Small community with limited resources
- Lack of stakeholder/developer support
- Limited bylaw enforcement/fine collection difficulty
- Inadequate highway/roadway maintenance
- Other competing priorities

Shortage of Technical Knowledge/Expertise/Information
- Lack of training/qualified staff
- Inadequate data/quantitative information
- Lack of qualified contractors
- Lack of proactive safety approach

Other Factors
- Highway/truck route through municipality
- Need for more RCMP enforcement
- Political interference
- Inadequate road right-of-way width
- Aging population
- Forest service road conditions
- Aging infrastructure
- Lack of multi-disciplinary collaboration
16. Please indicate any other comments, concerns or suggestions in regard to road safety in BC.

The participating municipalities listed a wide variety of concerns and gave numerous suggestions. The majority of comments involved drivers, active transportation, road maintenance, enforcement, and road safety management in the province, including insufficient funding.

Answers to this question are categorized and summarized below.

**Drivers**
Concerns
- Distracted drivers
- Drivers who don't know the rules of the road or choose not to follow them
- Speeding
- Driving under the influence of alcohol/drugs

Suggestions
- Expand educational programs such as Speed Watch
- Expand public education programs provided by ICBC

**Active Transportation / Transit**
Concerns
- Complaints from pedestrians and cyclists regarding sweeping
- Increasing conflict between cyclists and vehicle drivers, including fatal collisions

Suggestions
- Encourage people to drive less
- Better understanding of the rules of the road for pedestrians and motorists
- Focus transportation upgrades on active transportation and transit
- Active transportation education and advocacy
- Share best practices and collaborate more
- More off-road pedestrian pathways
- More bike lanes to support joint use of the road

**Road condition / maintenance**
Concerns
- Ruts on highways which cause hydroplaning
- Logging truck use of provincial highways

Suggestions
- Improve maintenance on highways, shoulders, and rights of way (e.g., including removing obstacles such as trees)
- Encourage logging companies to use designated logging roads
- Provide incentives for companies to maintain their own roads
- Use of solar power for traffic signals

**Funding**
Suggestions
- Develop additional opportunities (e.g., local gas tax, etc.) that provide steady, direct funding
- Give small communities more access to grant money to repair aging infrastructure
- Tie funding from provincial bodies to implementation of safety best practices, adherence to safe road design guidelines, and implementation of safety improvements
**Road Safety Management**

**Concerns**
- Finding the right balance between safety and mobility
- Reactive approach to safety
- Lack of support from landowners to give up land (e.g., for widening to accommodate positive offset left turns)
- Smaller safety projects get cancelled or have their scope reduced because of the high costs, e.g., removal of utility poles
- Disconnect in jurisdiction responsibilities
- Survey doesn’t adequately address regional districts and MOTI roadways very well

**Suggestions**
- More proactive approach to safety
- Reduce or control road access from private properties
- Develop safety benchmarks for arterial roads
- Provide good accurate data
- Legislate requirements that increase safe road design
- Review the Capital Regional District’s Traffic Safety Commission (TSC) as a model for use in other communities
- Use sides of publicly owned vehicles to display road safety messages
- Use road safety audits by ICBC staff as a tool to identify issues and secure funding

**Speed and Enforcement**

**Concerns**
- Lack of enforcement of illegal signage
- Difficulty policing all subdivision roads for speeding and other infractions
- Higher traffic volumes and speeds on highways in the summer

**Suggestions**
- Allocate ticketing revenues based on level of enforcement effort
- Allow municipalities to conduct automated enforcement; use revenues to improve safety
- Use/borrow speed display systems such as speed-reader boards

**Traffic Operations**

**Concerns**
- Motorcycle noise
- Illegal muffler adaptations
- Lack of parking; use of highways for parking

**Aging Population**

**Suggestion**
- Address needs of our aging population by considering this in planning/upgrade of facilities
Appendix A: Questionnaire
BC Communities Road Safety Survey

This survey is comprised of 16 short questions. Some of the questions may best be answered by your traffic operations manager, senior police officer or another person with related expertise/responsibility – so please ensure they provide the necessary input, where appropriate.

This survey is intended to only collect professional opinions and not personal information. Please do not include any personal information about yourself and/or third parties in your responses.

Continue »
BC Communities Road Safety Survey

Survey Respondent Contact Information
Please provide your contact information as the respondent so we can follow up to clarify responses (if required) and share survey results when complete.

Please enter your name.

Please enter your title within your municipality.

To follow-up and share results, please provide a work email address for future correspondence.

To follow-up and share results, please provide a work phone number for future correspondence.

« Back  Continue »
BC Communities Road Safety Survey

Your Municipality
Help us understand more about how your municipality is currently addressing road safety.

Select your municipality.
Municipalities are listed alphabetically.

1. Does your municipality have a formally articulated mandate to improving road safety?
   - Yes
   - No

2. In your opinion, how much of a priority is road safety for each of the following:
   1 = Low Priority, 5 = High priority

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<th>3</th>
<th>4</th>
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<tr>
<td>Council / Political</td>
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<td>Staff / Technical</td>
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<tr>
<td>Community at Large</td>
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3. Does your municipality have any of the following in place or under development?

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<th></th>
<th>No</th>
<th>Under Development</th>
<th>In Place</th>
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<tbody>
<tr>
<td>Road Safety Vision</td>
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<td>Road Safety Plan</td>
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<td>Road Safety Targets (e.g., fatality or injury reduction)</td>
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4. To what degree is road safety a consideration in the selection of transportation projects / upgrades?

1 2 3 4 5

1 = Minor Consideration 5 = Major Consideration

5. Are you aware of any of the following in place in your community?  
Check items that are present in your community.

☐ Collision data analysis
☐ Adequate collision data systems
☐ Other safety data (e.g., speeds, traffic tickets, traffic conflicts)
☐ Network screening (e.g., identification of collision-prone locations)
☐ City bylaws in support of road safety
☐ Staff policies in support of road safety
☐ Truck route networks
☐ Dangerous goods route network
☐ Systems for tracking public comments
☐ In-service road safety reviews
☐ Road safety audits
☐ Speed reduction devices including traffic calming
☐ Lower residential speed limits
☐ Policies that encourage roundabouts
☐ Strategic traffic safety enforcement
☐ Pedestrian safety programs (engineering, education or enforcement)
☐ Cyclist safety programs (engineering, education or enforcement)
☐ Motorcyclist safety programs (engineering, education or enforcement)
☐ Safe routes to school programs
☐ Seniors safety programs (engineering, education or enforcement)
☐ Disabled / medically unfit safety programs
☐ First Nations safety programs
☐ Commercial vehicle inspection programs
☐ Public outreach / engagement

6. List any other road safety programs or initiatives in your community
7. What road safety resources does your municipality currently have access to? (Note, additional responses can be entered in Question 16.)

- External road safety expertise (e.g., consultants, ICBC, health/injury prevention programs)
- External road safety funding (e.g., ICBC road improvement program, senior government grants)
- Specific funding allocated to road safety
- Staff with road safety skills / experience (e.g., road safety training, participated in road safety audit)
- Other: [ ]

« Back   Continue »
Your Community
Describe road safety within your community.

8. What would you identify as the top three road safety issues in your community? (Note, additional responses can be entered in Question 16.)

- Inadequate lighting
- Intersection design
- Cyclist safety
- Wildlife collisions
- Non-use of seat belts or child safety seats
- Impaired driving
- Pedestrian safety
- Vehicle speeds
- Commercial vehicles
- Winter driving
- Not following the rules of the road
- Distracted driving
- Other: [ ]

9. Which stakeholders below provide input on road safety issues in your community?

- Other Local Governments
- Fire Services
- BC Ambulance
- BC Coroners Service
- First Nations Community
- Post Secondary Education Institutions
- ICBC Representatives
- BC Ministry of Transportation and Infrastructure
10. List other stakeholders (public, government or industry) who provide input on road safety issues.
Road Safety Activities

11. What was your agency's average annual capital budget for transportation projects/upgrades over the last three years? (Please enter a number. No dollar signs or other characters.)

12. Approximately what percentage of your annual capital budget (over the past 1-3 years) was targeted to improve road safety? (Please enter a number. No dollar signs or other characters.)

13. What sources of safety data do you use? (Note, additional responses can be entered in Question 16.)
   - ICBC Data (insurance claim data)
   - Police Data (including TAS)
   - Ambulance Service Data
   - Health Data (emergency or hospitalization)
   - Fire Services Data
   - Observed Proxy Data such as Traffic Speeds, Volumes, Traffic Conflicts
   - Public comments / complaints
   - Coroners' Data
   - BC Injury Research and Prevention Unit
   - Other: [ ]

14. What other types of data or analysis do you need (or need better access to) in support of your road safety activities?
15. Please indicate any challenges in implementing your municipality's road safety activities.

16. Please indicate any other comments, concerns or suggestions in regard to road safety in BC
Appendix B: Participating Municipalities

Municipalities that helped develop the survey

City of Dawson Creek
City of Kelowna
Regional District of Nanaimo
Town of Smithers

Participating municipalities included in data analysis

Population < 5,000

City of Fernie
District of Barriere
District of Clearwater
District of Elkford
District of Hudson’s Hope
District of Invermere
District of Lillooet
District of Logan Lake
District of New Hazelton
District of Port Hardy
District of Sicamous
District of Sparwood
District of Stewart
District of Tumbler Ridge
District of Ucluelet
Mount Waddington Regional District
Regional Municipality of Northern Rockies
Sechelt Indian Government District
Skeena-Queen Charlotte Regional District
Town of Golden
Town of Oliver
Town of Osoyoos

Town of Port McNeill
Town of Princeton
Village of Burns Lake
Village of Clinton
Village of Cumberland
Village of Fraser Lake
Village of Fruitvale
Village of Gold River
Village of Hazelton
Village of Kalso
Village of Lumby
Village of Montrose
Village of New Denver
Village of Pemberton
Village of Port Alice
Village of Port Clements
Village of Queen Charlotte
Village of Sayward
Village of Slocan
Village of Valemount
Village of Zeballos
Town of Port McNeill

Population 5,000 to < 20,000

Central Okanagan Regional District
City of Colwood
City of Cranbrook
City of Merritt

District of Kent
District of Lake Country
District of North Saanich
District of Squamish
| City of Port Alberni                  | Fraser-Fort George Regional District |
| City of Quesnel                      | Powell River Regional District       |
| District of Central Saanich          | Resort Municipality of Whistler      |
| District of Esquimalt                | Town of Comox                       |
| District of Hope                     | Town of Sidney                      |

**Population ≥ 20,000**

| Capital Regional District            | City of Surrey                      |
| City of Abbotsford                   | City of Vancouver                   |
| City of Burnaby                      | Comox Valley Regional District      |
| City of Campbell River               | District of Delta                   |
| City of Chilliwack                   | District of Langley                 |
| City of Coquitlam                    | District of Saanich                 |
| City of Kamloops                     | District of West Kelowna            |
| City of New Westminster              | District of West Vancouver          |
| City of Prince George                | Nanaimo Regional District           |
| City of Richmond                     | City of Surrey                      |