

# Motor Vehicle Related Fatalities 10-year Statistics for British Columbia 2008-2017

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#### Introduction

This report presents the preliminary police-reported data on motor vehicle crashes in British Columbia for the ten-year period 2008 to 2017. The report is updated every year. It is the main source of data in measuring the Province's progress in working towards achieving Vision Zero<sup>1</sup> for fatalities and injuries. This data supports road safety programs, enforcement campaigns and policy development, and is used to evaluate various provincial road safety initiatives.

The data source for this report is police-reported MV6020 forms completed by police and manually entered into the Traffic Accident System (TAS). In 2008, legislation changed to provide police discretion on whether to attend crashes. This decreased the number of forms completed because police investigative resources are focused on fatalities and serious injuries. The effect of this change is that police-reported TAS data only represents the most serious motor vehicle crashes, while ICBC crash claims data represents nearly all crashes involving British Columbia road users. In the ten year-period between 2008 and 2017 there were an average of 285,000 Insurance Corporation of British Columbia (ICBC)-reported to ICBC from 2008 to 2016. These two data sources sometimes indicate conflicting trends in crashes and injuries.

Counts reported from this data also may vary slightly from data reported in the British Columbia Coroners Service annual report "Motor Vehicle Incident Deaths" due to varying definitions and timeframes for reporting. For example, fatalities that occur more than 30 days after an injury was sustained as a result of a motor vehicle crash would be counted by the Coroners Service report whereas that fatality would not be entered into TAS. As a result, counts within this report would be slightly lower than those found in the Coroners Service report.

The 2017 data is preliminary, and motor vehicle fatality and injury counts may change slightly should new or adjusted data be received after the publication of this report. Any amendments will be reflected in subsequent annual reports, but are not expected to affect general trends. Police-reported property damage only crashes are still being entered into TAS for 2017. Crashes where a fatality and/or injury occurred are prioritized for manual data entry into TAS over crashes where a fatality and/or injury did not occur. Accordingly, the total number of police-reported crashes for 2017 is expected to increase significantly and stats such as crash rates are only being reported up to 2016.

Road safety data is affected by many factors, including legislative and policy changes, the cumulative number of vehicle kilometers driven, enforcement practices and policies, seasonal weather, random variation, road conditions and roadway characteristics and design.

#### Notes about the data:

- Data is as of August 3, 2018.
- When comparing this fatality report with editions published in a different year, counts may differ due to further development of data, rounding, late reporting or corrections.
- Long-term trends may differ from the 10-year trends presented on the graphs.
- Due to rounding, 5 and 10-year averages may not add up.

1https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/road-safety-rules-and-consequences/publications-legislation-anddata/bc-community-road-safety-toolkit



#### Definitions

**Fatality:** Refers to a road user who dies within 30 days after an injury sustained in a crash involving at least one motor vehicle on a 'highway' as defined in the *Motor Vehicle Act* (largely any public roadway). The *Motor Vehicle Act* does not apply to forest-service roads, industrial roads and private driveways. Fatal victims of off-road snowmobile crashes, homicides, and suicides are excluded from this report.

**Crash Involving Fatalities:** Refers to a single police-reported motor vehicle crash in which at least one fatality, as defined above, occurred. For example, a motor vehicle crash where three road users were fatally injured would be counted as one single crash involving fatalities.

**Injury:** Refers to a road user who has reported any injury, at any level of severity, resulting from a motor vehicle crash occurring on a 'public highway' as defined in the *Motor Vehicle Act*. This includes serious injuries where a road user was admitted to hospital for an overnight stay.

**Crash Involving Injuries:** Refers to a single police-reported motor vehicle crash in which at least one injury, as defined above, occurred. For example, a motor vehicle crash where three road users were injured would be counted as one single crash involving injuries.

**Crash Fatality Rate:** Refers to the proportion of all crashes where a fatality occurred. For example, there were a total of 33,166 police-reported crashes in 2016, 274 of which resulted in at least one fatality. This results in a crash fatality rate of 0.8% (274/33,166).

**Crash Injury Rate:** Refers to the proportion of all crashes where an injury occurred. For example, there were a total of 33,166 police-reported crashes in 2016, 16,001 of which resulted in at least one injury. This results in a crash injury rate of 48.3% (16,001/33,166).

**Intersection:** An intersection is defined by the police-reported MV6020 form, where the accident location (ACC\_LOC) field is coded as "1 – at intersection". All other location codes are considered as occurring outside of an intersection. Intersections do not include motor vehicle crashes occurring between intersection exchanges, intersections of roads and driveways, alleys, bridges, ferries, docks, tunnels, parking lots, railroads, industrial roads or transit-express lanes and do not include highway exit /entrance lanes, or exit/entrance intersections or ramps. Motor vehicle crashes where the accident location was coded as "00 – Unknown" are excluded.

**Road User:** Refers to a driver, passenger, pedestrian or cyclist who is travelling on a 'highway' as defined in the *Motor Vehicle Act.* 

**Injury Density**: Injury density, reported as being within a range of High, Medium and Low are relative terms, indicating overall density in specific locations relative to all other locations displayed within each map. The injury densities displayed in the maps only represent the areas where more injuries occurred, but do not display information regarding exposure levels, or injury severity.

**Averages:** Unless stated otherwise, 5-year average refers to the average number of fatalities from 2013 to 2017 and 10-year average refers to the average number of fatalities from 2008 to 2017.



#### Group Definitions:

- Contributing Factors
  - <u>Speeding</u>: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: exceeding speed limit (35); excessive speed over 40 km/h (36); and, driving too fast for conditions (37).
  - Distracted Driving/Inattention: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: communication/video equipment (code 34); driver inattentive (code 85); and, driver internal/external distraction (code 86).

**Impairment**: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: ability impaired by alcohol (80); alcohol suspected (81); ability impaired by drugs (82); drugs suspected (83); and, ability impaired by medication (84).

- <u>Alcohol Impairment</u>: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: ability impaired by alcohol (80); and, alcohol suspected (81).
- <u>Drug Impairment</u>: Crashes where one or more of the following contributing factors was assigned to at least one of the entities involved in the crash: ability impaired by drugs (82); drugs suspected (83); and, ability impaired by medication (84).
- Driver Error/Confusion: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: backing unsafely (11); failing to signal (17); improper passing (21); driving on wrong side of road (24); improper turning (30); failure to secure stopped vehicle (38); and, driver error/confusion (39).
- <u>Aggressive Driving</u>: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: cutting in (12); failing to yield right-of-way (18); following too closely (20); ignoring traffic control device (29); and, ignoring officer/flagman/guard (32).
- <u>Environmental</u>: Crashes where one or more of the following contributing factors was assigned to at least one of the individuals involved in the crash: road condition (ice, snow, slush, water) (57); glare-artificial (61); glare-sunlight (62); and, environmental (fog, sleet, rain, snow) (66).
- Motorcycles include: motorcycles (50).
- Heavy vehicles include: single unit truck / heavy (code 21); combination unit truck / light (code 30); comb unit truck / heavy (code 31); combination unit tractor / trailer (code 32); combination unit tractor/trailer & pup [4-wheel trailer] (code 33); log truck & pole trailer (code 34); tow truck (code 35); combination unit truck/pull trailer/5<sup>th</sup> wheeler (code 36); bus local transit (code 41); bus intercity (code 42); road construction (grader, paver, roller) (code 91); general construction (code 92); mobile crane (code 94).



# 1. Road Safety Highlights

- In 2017 there were a total of 276 fatal victims of motor vehicle crashes in British Columbia, a decrease of approximately 22% since 2008, and down 4.2% from 2016.
- Observing trends in road safety as a proportion of the general population and population of drivers demonstrates an overall decline in the rate of fatalities; however this decline has slowed since 2011.
- Speeding and impairment were the contributing factors which had the highest rate of fatal victims per police-reported crash. From 2007 to 2016, 1.8% of police-reported crashes involving speeding and in 2.1% of police-reported crashes involving impairment resulted in at least one fatality.
- Only 3 cyclists were fatally injured as a result of a motor vehicle crash in 2017, the lowest number observed since 2008.
- Distracted driving/inattention and aggressive driving were the most common factors attributed to policereported crashes and injuries in British Columbia in the 10-years of this report.
- Persons aged 15-34, 55-64 and 75+ were at a much higher risk of being a fatal victim of a motor vehicle crash than the rest of the population.

			к	ey Figures		
Year	Fatalities	Injuries in Police- Reported Crashes <sup>1</sup>	Injuries in ICBC-Reported Crashes	Police- Reported Crashes <sup>2</sup>	ICBC- Reported Crashes	% of ICBC-Reported Crashes with a Corresponding Police Report <sup>1 2</sup>
2008	354	22,005	75,000	39,972	280,000	14%
2009	363	20,372	73,000	34,491	270,000	13%
2010	364	21,086	76,000	35,308	260,000	14%
2011	292	19,720	78,000	34,501	260,000	13%
2012	281	20,256	82,000	35,627	260,000	14%
2013	269	20,789	85,000	34,413	260,000	13%
2014	289	21,205	85,000	34,985	280,000	12%
2015	295	22,506	86,000	36,929	300,000	12%
2016	288	22,071	93,000	33,166	330,000	10%
2017	276	21,039	95,000	-	350,000	-

#### Table 1: Key Figures 2008 to 2017

Data for 2017 is preliminary and is subject to change as data settles.

Data does not include crashes on roads where the Motor Vehicle Act does not apply (such as forest-service roads, industrial roads and private driveways) and fatal victims of off-road snowmobile crashes; and homicides or suicides were excluded.

<sup>1</sup> Police-Reported Crash data and related % of claims with a corresponding police report for 2017 are omitted until 2018, when manual data entry will be finalized.

<sup>2</sup> Police-Reported Crashes is calculated as the total number of unique motor vehicle crashes recorded in TAS.

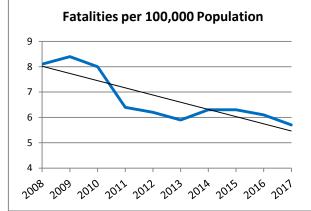


Table 2: Key Performance Indicators

# 2. Road Safety Key National Performance Indicators

	P	er 100,000 Popu	lation	Per 10	0,000 licensed	drivers
Year	Police- Reported Fatalities <sup>1</sup>	Police- Reported Injuries <sup>1 3</sup>	Police- Reported Crashes <sup>2 3</sup>	Police- Reported Fatalities <sup>1</sup>	Police- Reported Injuries <sup>1 3</sup>	Police- Reported Crashes <sup>2 3</sup>
2008	8.1	502.5	919.0	11.6	719.1	1305.0
2009	8.4	451.4	782.0	12.1	648.4	1109.8
2010	8.0	461.5	790.6	11.6	665.7	1123.5
2011	6.4	426.3	766.8	9.2	615.0	1086.6
2012	6.2	444.5	783.6	8.8	629.1	1108.9
2013	5.9	445.6	749.7	8.3	627.5	1056.7
2014	6.3	455.5	752.9	8.9	644.7	1066.6
2015	6.3	478.9	786.6	8.8	669.5	1099.0
2016	6.1	463.0	697.1	8.5	644.1	969.5
2017	5.7	436.8	-	7.9	603.9	-

#### Figure 1: Fatalities per 100,000 Population



<sup>1</sup> Data from Transport Canada Annual Report: Canadian Motor Vehicle Traffic Crash Statistics (Excluding BC 2017, calculated using TAS fatality counts and BC stats population data).

<sup>2 3</sup> Police-Reported Crash rate calculated using TAS data and BC Stats population data.

<sup>3</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized.

#### Table 3: Fatality and Injury Rate Comparison with National Average, and with Provincial and Global Leaders

Year	Po	olice-Reported Fatalitie	s per 100,000 Population	on	Po	lice-Reported Injuries	per 100,000 Populatior	1
rear	BC <sup>1</sup>	Canada <sup>1</sup>	ON <sup>1</sup>	Sweden <sup>2</sup>	BC <sup>1</sup>	Canada <sup>1</sup>	ON <sup>1</sup>	Sweden <sup>2</sup>
2008	8.1	7.3	4.8	4.3	502.5	536.6	484.5	283.6
2009	8.4	6.6	4.1	3.8	451.4	512.7	472.5	270.7
2010	8.0	6.5	4.3	2.8	461.5	500.0	477.3	247.5
2011	6.4	5.8	3.5	3.4	426.3	483.5	458.1	235.8
2012	6.2	6.0	4.2	3.0	444.5	475.3	442.3	238.9
2013	5.9	5.5	3.5	2.7	445.6	470.2	440.4	210.1
2014	6.3	5.2	3.5	2.8	455.5	421.7	347.4	179.8
2015	6.3	5.2	3.6	2.6	478.9	451.6	401.1	199.4
2016	6.1	5.2	4.0	2.7	463.0	442.1	396.2	186.7
2017	5.7	-	-	2.5	436.8	-	-	194.3

<sup>1</sup> Data from Transport Canada Annual Report: Canadian Motor Vehicle Traffic Crash Statistics (Excluding BC 2017, calculated using TAS fatality counts and BC stats population data).

<sup>2</sup> Rate calculated using official public fatality numbers and population and demographics statistics of Sweden.

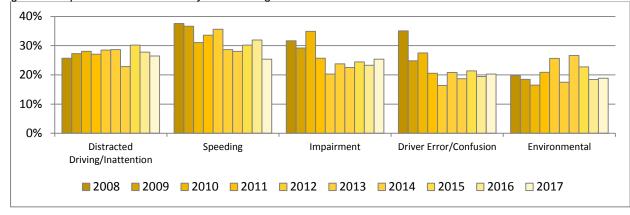


# 3. Factors Contributing to Motor Vehicle Fatalities

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year avg	10-year avg
Distracted Driving/ Inattention	91	99	102	79	80	77	66	89	80	73	77	84
Speeding	133	133	113	98	100	77	81	89	92	70	82	99
Impairment	112	106	127	75	57	64	65	72	67	70	68	82
Driver Error/Confusion	124	90	100	60	46	56	54	63	56	56	57	71
Environmental	70	67	60	61	72	47	77	67	53	52	59	63
Provincial Total	354	363	364	292	281	269	289	295	288	276	283	307

Table 4: Top Factors Contributing to Fatalities in 2017 and Historically by Group

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only. Due to the nature of how contributing factors are assigned to each entity involved in a crash, it may be determined that a fatal victim's involvement in a crash was due to more than one factor; therefore, that victim would be counted in the totals for each related factor. Consequently, data on total fatalities may be lower than the totals for fatalities for each contributing factor. Detailed definitions of each contributing factor group are defined in the Definitions section.



#### Figure 2: Proportion of all Fatalities by Contributing Factors - 2008 to 2017



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	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg³
iving/ n	Crashes	15516	13743	12804	14036	13640	14022	13715	13775	14583	12651	-	13749	13849
Distracted Driving/ Inattention	Crashes with Fatalities	84	89	94	87	72	74	72	60	83	78	-	73	79
Distra In	Crash Fatality Rate	0.5%	0.6%	0.7%	0.6%	0.5%	0.5%	0.5%	0.4%	0.6%	0.6%	-	0.5%	0.6%
g	Crashes	7882	6474	5333	4952	4678	4639	4165	4392	4579	4071	-	4369	5117
Speeding	Crashes with Fatalities	141	117	119	92	81	80	67	70	85	83	-	77	94
Ś	Crash Fatality Rate	1.8%	1.8%	2.2%	1.9%	1.7%	1.7%	1.6%	1.6%	1.9%	2.0%	-	1.8%	1.8%
int	Crashes	5719	5079	4440	3798	3081	3150	3041	3089	3239	2792	-	3062	3743
Impairment	Crashes with Fatalities	128	101	97	110	71	55	58	56	65	60	-	59	80
<u>m</u>	Crash Fatality Rate	2.2%	2.0%	2.2%	2.9%	2.3%	1.7%	1.9%	1.8%	2.0%	2.1%	-	1.9%	2.1%
or/	Crashes	14040	11349	8022	7799	7216	7036	6540	6720	7038	6276	-	6722	8204
Driver Error/ Confusion	Crashes with Fatalities	109	107	82	79	57	40	49	42	56	53	-	48	67
C Dri	Crash Fatality Rate	0.8%	0.9%	1.0%	1.0%	0.8%	0.6%	0.7%	0.6%	0.8%	0.8%	-	0.7%	0.8%
Intal	Crashes	9806	7900	6357	6232	6874	7119	5970	6451	5796	5478	-	6163	6798
Environmental	Crashes with Fatalities	52	63	58	53	52	57	42	68	64	49	-	56	56
Envi	Crash Fatality Rate	0.5%	0.8%	0.9%	0.9%	0.8%	0.8%	0.7%	1.1%	1.1%	0.9%	-	0.9%	0.8%
Total	Crashes	47882	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	35024	36727
Provincial Total	Crashes with Fatalities	366	323	329	319	264	251	245	256	277	274	-	261	290
Provi	Crash Fatality Rate	0.8%	0.8%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	-	0.7%	0.8%

Table 5: Proportion of Police-Reported Crashes Involving Top Factors Resulting in at Least One Fatality

<sup>1</sup>Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, crash fatality and injury rates for 2016 should be used as the most recent data. <sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.



Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year avg	10-year avg
Alcohol Impairment	102	92	111	68	49	52	59	61	52	62	57	71
Drug Impairment	21	30	35	16	16	23	13	17	24	23	20	22
Impairment Total	112	106	127	75	57	64	65	72	67	70	68	82

#### Table 6: Fatalities Where Impairment was a Contributing Factor by Impairment Type

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

Due to the nature of how contributing factors are assigned to each entity involved in a crash, it may be determined that a fatal victim's involvement in a crash was due to both alcohol impairment and drug impairment; therefore, that victim would be counted in the totals for each impairment type.

ICBC analysis of TAS 2013-2017 data found that roughly 10 fatalities per year are attributed to both alcohol and drug impairment.

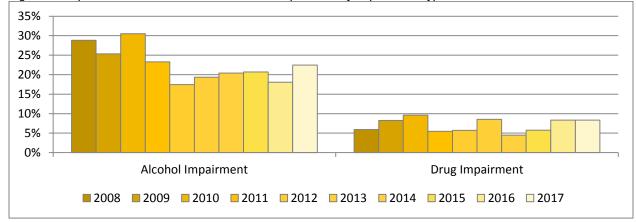


Figure 3: Proportion of all Fatalities Contributed to Impairment by Impairment Type - 2008 to 2017

#### Table 7: Proportion of Police-Reported Crashes Involving Impairment Resulting in at Least One Fatality

	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg³
_	Crashes	5239	4723	4134	3440	2739	2824	2677	2683	2793	2329	-	2661	3358
Alcohol	Crashes with Fatalities	115	93	85	95	65	47	49	51	55	46	-	50	70
4	Crash Fatality Rate	2.2%	2.0%	2.1%	2.8%	2.4%	1.7%	1.8%	1.9%	2.0%	2.0%	-	1.9%	2.1%
	Crashes	785	581	497	538	500	477	532	556	604	609	-	556	568
Drugs	Crashes with Fatalities	37	19	26	31	15	15	19	11	16	21	-	16	21
	Crash Fatality Rate	4.7%	3.3%	5.2%	5.8%	3.0%	3.1%	3.6%	2.0%	2.6%	3.4%	-	3.0%	3.7%

Detailed definitions of each contributing factor group are defined in the Definitions section.

Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, crash fatality and

injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.

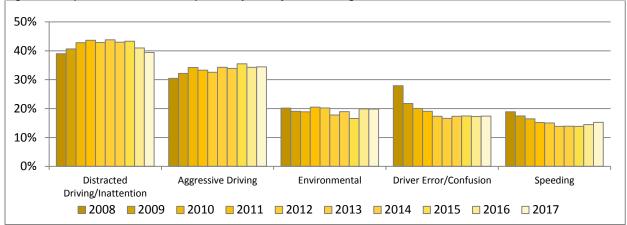


# 4. Factors Contributing to Motor Vehicle Injuries

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year avg	10-year avg
Distracted Driving/ Inattention	8583	8280	9023	8607	8686	9101	9112	9744	9038	8295	9058	8847
Aggressive Driving	6702	6550	7218	6559	6599	7127	7181	7987	7569	7243	7421	7074
Environmental	4436	3878	3988	4040	4098	3699	4017	3735	4390	4175	4003	4046
Driver Error/Confusion	6138	4434	4230	3760	3513	3459	3678	3929	3813	3659	3708	4061
Speeding	4161	3561	3473	2997	3037	2880	2955	3116	3198	3205	3071	3258
Provincial Total	22005	20372	21086	19720	20256	20789	21205	22506	22071	21039	21522	21105

#### Table 8: Top Factors Contributing to Police-Reported Injuries in 2017 and Historically by Group

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only. Due to the nature of how contributing factors are assigned to each entity involved in a crash, it may be determined that a fatal victim's involvement in a crash was due to more than one factor; therefore, that victim would be counted in the totals for each related factor. Consequently, data on total fatalities may be lower than the totals for fatalities for each contributing factor. Detailed definitions of each contributing factor group are defined in the Notes section.



#### Figure 4: Proportion of all Police-Reported Injuries by Contributing Factors - 2008 to 2017



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	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg <sup>3</sup>
iving/ in	Crashes	15516	13743	12804	14036	13640	14022	13715	13775	14583	12651	-	13749	13849
Distracted Driving/ Inattention	Crashes with Injuries	6821	6147	5894	6424	6185	6312	6360	6384	6886	6381	-	6465	6379
	Crash Injury Rate	44.0%	44.7%	46.0%	45.8%	45.3%	45.0%	46.4%	46.3%	47.2%	50.4%	-	47.1%	46.1%
Iriving	Crashes	11186	9017	8567	9472	8534	8886	8911	9083	9905	8947	-	9146	9251
Aggressive Driving	Crashes with Injuries	5577	4614	4502	4965	4532	4612	4821	4956	5410	5207	-	5001	4920
Aggre	Crash Injury Rate	49.9%	51.2%	52.6%	52.4%	53.1%	51.9%	54.1%	54.6%	54.6%	58.2%	-	54.7%	53.2%
ntal	Crashes	9806	7900	6357	6232	6874	7119	5970	6451	5796	5478	-	6163	6798
Environmental	Crashes with Injuries	3921	3230	2830	2858	2959	3037	2681	2966	2736	3166	-	2917	3038
Enviro	Crash Injury Rate	40.0%	40.9%	44.5%	45.9%	43.0%	42.7%	44.9%	46.0%	47.2%	57.8%	-	47.7%	45.3%
· Error/ usion	Crashes	14040	11349	8022	7799	7216	7036	6540	6720	7038	6276	-	6722	8204
Driver Error, Confusion	Crashes with Injuries	5318	4366	3131	3034	2684	2558	2479	2557	2740	2669	-	2601	3154
C	Crash Injury Rate	37.9%	38.5%	39.0%	38.9%	37.2%	36.4%	37.9%	38.1%	38.9%	42.5%	-	38.8%	38.5%
g	Crashes	7882	6474	5333	4952	4678	4639	4165	4392	4579	4071	-	4369	5117
Speeding	Crashes with Injuries	3435	2839	2417	2354	2081	2133	1910	2036	2125	2175	-	2076	2351
S	Crash Injury Rate	43.6%	43.9%	45.3%	47.5%	44.5%	46.0%	45.9%	46.4%	46.4%	53.4%	-	47.6%	46.3%
Total	Crashes	47882	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	35024	36727
Provincial Total	Crashes with Injuries	18866	16112	14809	15369	14488	15051	14914	15370	16253	16001	-	15518	15723
Provi	Crash Injury Rate	39.4%	40.3%	42.9%	43.5%	42.0%	42.2%	43.3%	43.9%	44.0%	48.2%	-	44.4%	43.0%

Table 9: Proportion of Police-Reported Crashes Involving Top Factors Resulting in at Least One Injury

1 Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data. <sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.



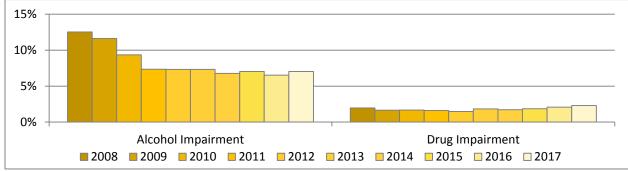


Figure 5: Proportion of all Police-Reported Injuries Attributed to Impairment by Impairment Type - 2008 to 2017

Table 10: Proportion of Police-Reported Crashes Involving Impairment Resulting in at Least One Injury

_	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg³
	Crashes	5239	4723	4134	3440	2739	2824	2677	2683	2793	2329	-	2661	3358
Alcohol	Crashes with Injuries	2088	1897	1640	1376	1034	1086	1046	1020	1133	1045	-	1066	1337
1	Crash Injury Rate	39.9%	40.2%	39.7%	40.0%	37.8%	38.5%	39.1%	38.0%	40.6%	44.9%	-	40.2%	39.8%
	Crashes	785	581	497	538	500	477	532	556	604	609	-	556	568
Drugs	Crashes with Injuries	369	287	240	270	220	222	265	268	304	327	-	277	277
	Crash Injury Rate	47.0%	49.4%	48.3%	50.2%	44.0%	46.5%	49.8%	48.2%	50.3%	53.7%	-	49.7%	48.7%

<sup>1</sup>Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.



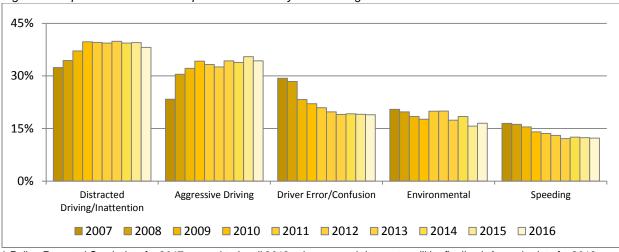
Table 11: To	p Factor	rs Contri	buting to	Police-	Reporte	d Crash	es in 20	16 and H	Historica	lly by G	roup		
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg <sup>3</sup>
Distracted Driving/ Inattention	15516	13743	12804	14036	13640	14022	13715	13775	14583	12651	-	13749	13849
Aggressive Driving	11186	9017	8567	9472	8534	8886	8911	9083	9905	8947	-	9146	9251
Driver Error/Confusion	14040	11349	8022	7799	7216	7036	6540	6720	7038	6276	-	6722	8204
Environmental	9806	7900	6357	6232	6874	7119	5970	6451	5796	5478	-	6163	6798
Speeding	7882	6474	5333	4952	4678	4639	4165	4392	4579	4071	-	4369	5117
Provincial Total	47882	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	35024	36727

# 5. Factors Contributing to Motor Vehicle Crashes

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016

should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.
<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.



#### Figure 6: Proportion of all Police-Reported Crashes<sup>1</sup> by Contributing Factors - 2007 to 2016

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016 should be used as the most recent data.



# 6. Characteristics of Police-Reported Crashes Resulting in Fatalities

## **Road Types**

	Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg³
	Fatalities	184	202	222	164	146	139	154	162	149	171	155	169
Provincial Highway	Injuries	6778	6593	6277	5970	6013	5621	5686	6482	6465	7165	6284	6305
	Crashes	11767	10346	9307	9266	9374	8809	9249	10148	9486	-	-	-
	Fatalities	120	133	111	103	110	116	111	115	126	82	110	113
City/Municipal Street	Injuries	13882	12628	13732	12795	13271	14363	14976	15489	14943	13190	14592	13927
	Crashes	25770	22281	24293	23600	24468	24409	24763	25700	22643	-	-	-
	Fatalities	50	28	31	25	25	14	24	18	13	23	18	25
Rural Roads	Injuries	1345	1151	1077	955	972	805	543	535	663	684	646	873
	Crashes	2435	1864	1708	1635	1785	1195	973	1081	1037	-	-	-
	Fatalities	354	363	364	292	281	269	289	295	288	276	283	307
Provincial Total	Injuries	22005	20372	21086	19720	20256	20789	21205	22506	22071	21039	21522	21105
	Crashes	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	-	-

Table 12: Fatalities, Police-Reported Injuries and Police-Reported Crashes by Road Type

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016 should be used as the most recent data.

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.

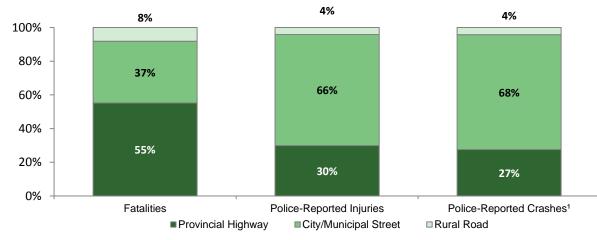


Figure 7: Proportion of all Fatalities, Police-Reported Injuries and Police-Reported Crashes since 2008 by Road Type



<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, police-reported crashes only represent 2008 to 2016 data.

	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year	10-year
	i oui	2001	2000	2000	1010			2010		2010	2010	2011	avg²	avg³
Provincial	Crashes with Fatalities	185	161	178	185	140	123	125	129	145	141	-	133	151
Highway	Crash Fatality Rate	1.3%	1.4%	1.7%	2.0%	1.5%	1.3%	1.4%	1.4%	1.4%	1.5%	1	1.4%	1.5%
City/ Municipal	Crashes with Fatalities	144	115	124	104	100	105	106	105	115	120	-	110	114
Street	Crash Fatality Rate	0.5%	0.4%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	-	0.5%	0.5%
Rural	Crashes with Fatalities	37	47	27	30	24	23	14	22	17	13	-	18	25
Road	Crash Fatality Rate	1.3%	1.9%	1.4%	1.8%	1.5%	1.3%	1.2%	2.3%	1.6%	1.3%	-	1.5%	1.5%
Provincial	Crashes with Fatalities	366	323	329	319	264	251	245	256	277	274	-	261	290
Total	Crash Fatality Rate	0.8%	0.8%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	-	0.7%	0.8%

#### Table 13: Proportion of Police-Reported Crashes Resulting in Fatalities by Road Type

<sup>1</sup> Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.

				report			<u>, ann an an</u>			xa 19pe			5-year	10-year
	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	avg <sup>2</sup>	avg <sup>3</sup>
Provincial	Crashes with Injuries	5702	4780	4548	4401	4140	4236	3841	3898	4382	4476	-	4167	4440
Highway	Crash Injury Rate	40.0%	40.6%	44.0%	47.3%	44.7%	45.2%	43.6%	42.1%	43.2%	47.2%	-	44.3%	43.8%
City/ Municipal	Crashes with Injuries	12054	10355	9433	10191	9643	10103	10477	11086	11476	11023	-	10833	10584
Street	Crash Injury Rate	39.2%	40.2%	42.3%	42.0%	40.9%	41.3%	42.9%	44.8%	44.7%	48.7%	-	44.5%	42.7%
Rural	Crashes with Injuries	1110	977	828	777	705	712	596	386	395	502	-	518	699
Road	Crash Injury Rate	38.9%	40.1%	44.4%	45.5%	43.1%	39.9%	49.9%	39.7%	36.5%	48.4%	-	42.9%	42.6%
Provincial	Crashes with Injuries	18866	16112	14809	15369	14488	15051	14914	15370	16253	16001	-	15518	15723
Total	Crash Injury Rate	39.4%	40.3%	42.9%	43.5%	42.0%	42.2%	43.3%	43.9%	44.0%	48.2%	-	44.4%	43.0%

#### Table 14: Proportion of Police-Reported Crashes Resulting in Injuries by Road Type

<sup>1</sup> Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.

<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.



## **Speed Limit**

	Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg <sup>3</sup>
	Fatalities	8	3	3	5	11	6	2	4	4	7	5	5
30km/h or less	Injuries	508	477	505	414	519	481	435	547	524	530	503	494
	Crashes	1447	1264	1191	1197	1329	1037	1085	1271	1264	-	-	-
	Fatalities	147	160	118	105	116	112	95	107	126	86	105	117
40-60km/h	Injuries	13943	12774	13732	12531	12881	13451	13547	14566	14162	12811	13707	13440
	Crashes	23155	20190	21616	20549	21041	20462	20552	21789	19777	-	-	-
	Fatalities	132	110	152	86	82	86	95	81	88	94	89	101
70-90km/h	Injuries	3877	3644	3569	3381	3342	3396	3451	3521	3442	3535	3469	3516
	Crashes	6382	5410	5369	5102	5220	5177	5115	5181	4648	-	-	-
	Fatalities	51	72	62	65	50	48	70	83	57	72	66	63
100+km/h	Injuries	1644	1471	1478	1565	1569	1569	1742	1883	1838	2061	1819	1682
	Crashes	2820	2248	2231	2545	2570	2372	2659	2933	2586	-	-	-
	Fatalities	354	363	364	292	281	269	289	295	288	276	283	307
Provincial Total	Injuries	22005	20372	21086	19720	20256	20789	21205	22506	22071	21039	21522	21105
	Crashes	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	-	-

Table 15: Fatalities, Police-Reported Injuries and Police-Reported Crashes by Speed Limit

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016 should be used as the most recent data.

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

Crashes where the speed\_zn variable was either "0 – Unknown" or "999 – Other" were not grouped into any speed limit group.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.

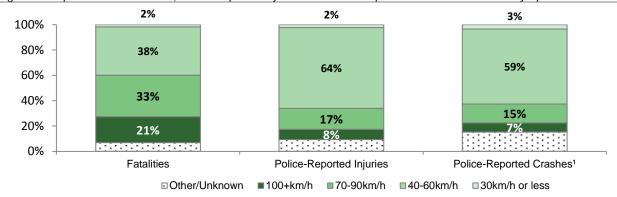


Figure 8: Proportion of all Fatalities, Police-Reported Injuries and Police-Reported Crashes since 2008 by Speed Limit

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, police-reported crashes only represent 2008 to 2016 data.



#### Table 16: Proportion of Police-Reported Crashes Resulting in Fatalities by Speed Limit

	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year	10-year
													avg²	avg³
30km/h or	Crashes with Fatalities	4	8	3	3	5	10	6	2	4	4	-	5	5
less	Crash Fatality Rate	0.2%	0.6%	0.2%	0.3%	0.4%	0.8%	0.6%	0.2%	0.3%	0.3%	-	0.4%	0.4%
40-60km/h	Crashes with Fatalities	160	140	150	112	102	110	107	91	104	120	-	106	120
40-00km/m	Crash Fatality Rate	0.6%	0.6%	0.7%	0.5%	0.5%	0.5%	0.5%	0.4%	0.5%	0.6%	-	0.5%	0.5%
70-90km/h	Crashes with Fatalities	111	116	100	123	79	72	71	82	78	85	-	78	92
70-90km/m	Crash Fatality Rate	1.4%	1.8%	1.8%	2.3%	1.5%	1.4%	1.4%	1.6%	1.5%	1.8%	-	1.5%	1.7%
100+km/h	Crashes with Fatalities	63	43	60	53	53	38	44	55	72	52	-	52	53
100+кш/п	Crash Fatality Rate	1.8%	1.5%	2.7%	2.4%	2.1%	1.5%	1.9%	2.1%	2.5%	2.0%	-	2.0%	2.0%
Provincial	Crashes with Fatalities	366	323	329	319	264	251	245	256	277	274	-	261	290
Total	Crash Fatality Rate	0.8%	0.8%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	-	0.7%	0.8%

1 Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data. Crashes where the speed\_zn variable was either "0 - Unknown" or "999 - Other" were not grouped into any speed limit group.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016. <sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.

#### Table 17: Proportion of Police-Reported Crashes Resulting in Injuries by Speed Limit

	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg³
30km/h or	Crashes with Injuries	535	406	385	421	355	425	397	357	444	444	-	413	417
less	Crash Injury Rate	26.9%	28.1%	30.5%	35.3%	29.7%	32.0%	38.3%	32.9%	34.9%	35.1%	-	34.6%	32.4%
40-60km/h	Crashes with Injuries	12214	10283	9414	10071	9356	9669	9721	9948	10599	10378	-	10063	10165
40-00km/m	Crash Injury Rate	42.8%	44.4%	46.6%	46.6%	45.5%	46.0%	47.5%	48.4%	48.6%	52.5%	-	48.6%	46.9%
70-90km/h	Crashes with Injuries	3290	2714	2449	2463	2287	2337	2280	2334	2369	2348	-	2334	2487
70-90km/m	Crash Injury Rate	41.1%	42.5%	45.3%	45.9%	44.8%	44.8%	44.0%	45.6%	45.7%	50.5%	-	46.1%	45.0%
100+km/h	Crashes with Injuries	1396	1142	1009	1023	1064	1083	1043	1159	1280	1242	-	1161	1144
100+km/m	Crash Injury Rate	40.4%	40.5%	44.9%	45.9%	41.8%	42.1%	44.0%	43.6%	43.6%	48.0%	-	44.3%	43.5%
Provincial	Crashes with Injuries	18866	16112	14809	15369	14488	15051	14914	15370	16253	16001	-	15518	15723
Total	Crash Injury Rate	39.4%	40.3%	42.9%	43.5%	42.0%	42.2%	43.3%	43.9%	44.0%	48.2%	-	44.4%	43.0%

<sup>1</sup> Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data. Crashes where the speed\_zn variable was either "0 – Unknown" or "999 – Other" were not grouped into any speed limit group.

<sup>2</sup> The 5-year average represents the average of data from 2012 to 2016.



<sup>3</sup> The 10-year average represents the average of data from 2007 to 2016.

## Intersections

	Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg³
	Fatalities	67	85	62	66	77	79	49	73	85	55	68	70
At INTXN	Injuries	9464	8813	9703	9105	9000	9692	9683	10249	10138	9428	9838	9528
	Crashes	13128	11585	12983	12368	12617	12326	12534	12989	11903	-	-	-
	Fatalities	281	274	296	216	192	185	238	215	203	218	212	232
Not At INTXN	Injuries	12203	11179	11082	10312	10895	10784	11264	11970	11634	11299	11390	11262
	Crashes	25881	22082	21617	21215	22137	21363	21828	23159	20640	-	-	-
	Fatalities	354	363	364	292	281	269	289	295	288	276	283	307
Provincial Total	Injuries	22005	20372	21086	19720	20256	20789	21205	22506	22071	21039	21522	21105
	Crashes	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	-	-

#### Table 18: Estalities Police-Reported Crashes Injuries and Police-Reported Crashes at Intersections

1 Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016 should be used as the most recent data.

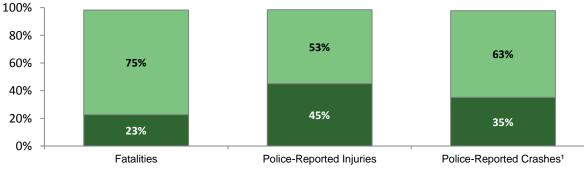
<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.

As noted in the Definition's section, fatality, injury and crash counts represent police-reported motor vehicle crashes only. Please refer to the Definitions section for a detailed definition of an "intersection".

Please also note that the definition of an intersection in TAS data differs from that used by ICBC. Additionally, ICBC reports on intersections using ICBC claims data, which contains a large number of less, sever motor vehicle crashes; as such, trends may not be consistent.

Figure 9: Proportion of all Fatalities, Police-Reported Crashes Injuries and Police-Reported Crashes since 2008 at
Intersections



At Intersection

Not at Intersection

Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, police-reported crashes only represent 2008 to 2016 data.



	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg²	10-year avg <sup>3</sup>
At INTXN	Crashes with Fatalities	72	67	76	60	63	72	70	47	73	82	-	69	68
AUINTAN	Crash Fatality Rate	0.5%	0.5%	0.7%	0.5%	0.5%	0.6%	0.6%	0.4%	0.6%	0.7%	-	0.6%	0.5%
Not At	Crashes with Fatalities	292	251	250	253	194	170	170	207	198	192	-	187	218
INTXN	Crash Fatality Rate	0.9%	1.0%	1.1%	1.2%	0.9%	0.8%	0.8%	0.9%	0.9%	0.9%	-	0.9%	0.9%
Provincial	Crashes with Fatalities	366	323	329	319	264	251	245	256	277	274	-	261	290
Total	Crash Fatality Rate	0.8%	0.8%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	-	0.7%	0.8%

#### Table 19: Proportion of Police-Reported Crashes Resulting in Fatalities at Intersections

<sup>1</sup> Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.

	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg <sup>3</sup>
At INTXN	Crashes with Injuries	7672	6755	6255	6850	6533	6568	6721	6854	7194	7128	-	6893	6853
AUNTAN	Crash Injury Rate	49.5%	51.5%	54.0%	52.8%	52.8%	52.1%	54.5%	54.7%	55.4%	59.9%	-	55.3%	53.7%
Not At	Crashes with Injuries	10916	9102	8278	8304	7741	8206	7956	8327	8848	8644	-	8396	8632
INTXN	Crash Injury Rate	34.8%	35.2%	37.5%	38.4%	36.5%	37.1%	37.2%	38.1%	38.2%	41.9%	-	38.5%	37.5%
Provincial	Crashes with	18866	16112	14809	15369	14488	15051	14914	15370	16253	16001	-	15518	15723
Total	Crash Injury Rate	39.4%	40.3%	42.9%	43.5%	42.0%	42.2%	43.3%	43.9%	44.0%	48.2%	-	44.4%	43.0%

#### Table 20: Proportion of Police-Reported Crashes Resulting in Injuries at Intersections

<sup>1</sup> Police-Reported Crash data for 2017 where an injury or fatality did not occur is expected to increase significantly as additional crash data is entered into TAS. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.



## Vehicle Type

Table	e ZT. Falain		ce-iveh			ijunes a		e-nepu		SHES DY	venicie	туре	
	Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg³
	Fatalities	43	49	38	40	25	32	36	32	35	32	33	36
Motor Cycles	Injuries	1189	1178	1068	1006	1006	1071	1039	1136	1110	1098	1091	1090
	Crashes	1208	1188	1111	1020	1073	1062	1069	1164	1162	-	-	-
	Fatalities	63	73	59	71	67	50	62	53	56	59	56	61
Heavy Vehicles	Injuries	1548	1285	1331	1389	1347	1398	1361	1428	1285	1325	1359	1370
	Crashes	3154	2546	2554	2970	2880	2783	2839	2808	2392	-	-	-
	Fatalities	354	363	364	292	281	269	289	295	288	276	283	307
Provincial Total	Injuries	22005	20372	21086	19720	20256	20789	21205	22506	22071	21039	21522	21105
	Crashes	39972	34491	35308	34501	35627	34413	34985	36929	33166	-	-	-

#### Table 21: Fatalities, Police-Reported Crashes Injuries and Police-Reported Crashes by Vehicle Type

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, data for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.

As noted in the Definition's section, fatality, injury and crash counts represent police-reported motor vehicle crashes only. **Note:** Fatality numbers for motorcycles will be slightly higher than those reported in previous years. To match the methodology used for all other motor vehicle crash characteristics, including those for heavy vehicles, motorcycle fatalities have been calculated as the number of fatalities resulting from a crash where a motorcycle was involved. In previous years, the total fatalities specific to motorcycle drivers or passengers was reported. This change does not affect reported fatalities for heavy vehicles.

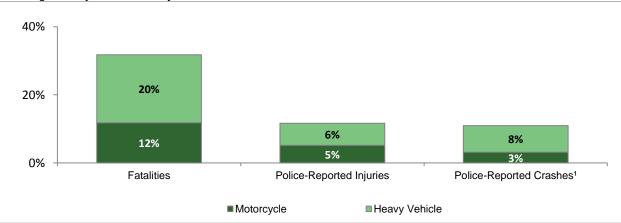


Figure 10: Proportion of all Fatalities, Police-Reported Crashes Injuries and Police-Reported Crashes since 2008 involving Motorcycles and Heavy Vehicles

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, police-reported crashes only represent 2008 to 2016 data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> The 10-year average represents the average of data from 2008 to 2017.



	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	5-year avg <sup>2</sup>	10-year avg <sup>3</sup>
Motor	Crashes with Fatalities	47	39	49	35	38	23	30	35	32	35	-	31	36
Cycles	Crash Fatality Rate	4.0%	3.2%	4.1%	3.2%	3.7%	2.1%	2.8%	3.3%	2.7%	3.0%	-	2.8%	3.2%
Heavy	Crashes with Fatalities	61	58	62	52	57	53	47	48	50	54	-	50	54
Vehicles	Crash Fatality Rate	1.6%	1.8%	2.4%	2.0%	1.9%	1.8%	1.7%	1.7%	1.8%	2.3%	-	1.9%	1.9%
Provincial	Crashes with Fatalities	366	323	329	319	264	251	245	256	277	274	-	261	290
Total	Crash Fatality Rate	0.8%	0.8%	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	0.8%	0.8%	-	0.7%	0.8%

#### Table 22: Proportion of Police-Reported Crashes Resulting in Fatalities by Vehicle Type

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, crash fatality and injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> the 10-year average represents the average of data from 2008 to 2017.

		-											-	
	Veen	2007	2000	2000	204.0	2011	2042	2042	2014	2045	2010	00471	5-year	10-year
	Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>1</sup>	avg²	avg³
Motor	Crashes with Injuries	1006	1032	1017	958	873	902	918	922	1000	988	-	946	962
Cycles	Crash Injury Rate	85.7%	85.4%	85.6%	86.2%	85.6%	84.1%	86.4%	86.2%	85.9%	85.0%	-	85.5%	85.6%
Heavy	Crashes with Injuries	1259	1103	939	944	992	991	1006	1020	976	929	-	984	1016
Vehicles	Crash Injury Rate	33.0%	35.0%	36.9%	37.0%	33.4%	34.4%	36.1%	35.9%	34.8%	38.8%	-	36.0%	35.5%
Provincial Total	Crashes with Injuries	18866	16112	14809	15369	14488	15051	14914	15370	16253	16001	-	15518	15723
	Crash Injury Rate	39.4%	40.3%	42.9%	43.5%	42.0%	42.2%	43.3%	43.9%	44.0%	48.2%	-	44.4%	43.0%

#### Table 23: Proportion of Police-Reported Crashes Resulting in Injuries by Vehicle Type

<sup>1</sup> Police-Reported Crash data for 2017 are omitted until 2018, when manual data entry will be finalized. As such, crash fatality and

injury rates for 2016 should be used as the most recent data.

<sup>2</sup> The 5-year average represents the average of data from 2013 to 2017.

<sup>3</sup> the 10-year average represents the average of data from 2008 to 2017.



## **Occupant Type**

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year average	10-year average
Driver	214	223	207	161	145	149	161	163	172	178	165	177
Passenger	72	70	92	65	59	49	64	52	37	51	51	61
Cyclist	9	10	6	7	11	13	6	12	10	3	9	9
Pedestrian	56	58	58	57	65	52	55	66	65	42	56	57
Other	3	2	1	2	1	6	3	2	4	2	3	3
Provincial Total	354	363	364	292	281	269	289	295	288	276	283	307

Table 24: Fatalities by Occupant Type

As noted in the definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

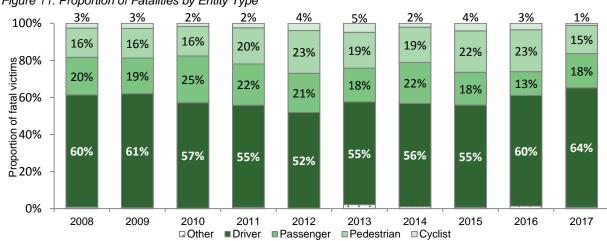


Figure 11: Proportion of Fatalities by Entity Type



# 7. Population Demographics of Motor Vehicle Fatality Victims

Table 25: Fatalities b	y Gender and Rate	per 100,000 Population
------------------------	-------------------	------------------------

		Male				Female	•		Unknown	
Year	Population	Fatalities	% of Fatalities	Rate	Population	Fatalities	% of Fatalities	Rate	Fatalities	% of Fatalities
2008	2,158,783	239	68%	11.1	2,190,629	114	32%	5.2	1	0.3%
2009	2,191,076	257	71%	11.7	2,219,603	106	29%	4.8	0	0.0%
2010	2,219,698	239	66%	10.8	2,246,226	125	34%	5.6	0	0.0%
2011	2,236,756	200	69%	8.9	2,262,383	90	31%	4.0	2	0.7%
2012	2,259,312	189	67%	8.4	2,286,978	92	33%	4.0	0	0.0%
2013	2,280,504	174	65%	7.6	2,309,577	92	34%	4.0	3	1.1%
2014	2,307,692	202	70%	8.8	2,338,770	87	30%	3.7	0	0.0%
2015	2,329,956	208	71%	8.9	2,364,743	86	29%	3.6	1	0.3%
2016	2,361,038	190	66%	8.0	2,396,620	97	34%	4.0	1	0.3%
2017	2,389,487	190	69%	8.0	2,427,673	86	31%	3.5	0	0.0%

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only. Population data retrieved from BC Stats. Additional analysis of rate per 100,000 licensed drivers by age groups was not available, which may suggest alternate trends.

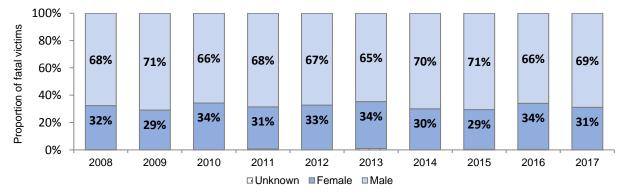


Figure 12: Proportion of all Fatalities by Gender



#### Table 26: Fatalities by Age Group

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year average	10-year average
Under 15	15	8	18	14	14	10	14	7	8	12	10.2	12
15-24	80	64	60	54	49	42	41	46	49	31	41.8	51.6
25-34	54	51	54	42	40	48	42	37	51	50	45.6	46.9
35-44	50	57	47	32	37	31	25	46	24	44	34	39.3
45-54	47	69	71	44	43	36	40	42	38	31	37.4	46.1
55-64	52	43	46	44	29	37	49	45	52	47	46	44.4
65-74	21	20	25	24	28	30	29	29	28	26	28.4	26
75+	35	51	43	38	41	35	49	43	38	35	40	40.8
Provincial Total	354	363	364	292	281	269	289	295	288	276	283	307

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

Figure 13: Proportion of all Fatalities by Age Group

	0	)%	10%	20%	30%		40%	50	0%	60%		70%	80%	6	909	%	100%
	2008	4%	23%		1!	5%		149	%	1	3%		15%		6%	10%	
	2009	2%	18%	1	4%		16%			19%		129	6	6%		14%	
	2010	5%	16%		15%		13%			20%		13	%	7%		12%	
	2011	5%	18%		14%		11%		15	%		15%		8%		13%	
ear	2012	5%	17%		14%		13%		1	5%		10%	10	%		15%	
$\succ$	2013	4%	16%		18%		<b>12%</b>		13%		1	4%	1	1%		13%	
	2014	5%	14%	1!	5%	9%	%	149	%		17%		10%		1	.7%	
	2015	2%	16%	13%		16	5%		14%		15	%	10	%		15%	
	2016	3%	17%		18%		8%		13%		18	%	1	L <b>0%</b>		13%	
	2017	4%	11%	18%			16%		11%		1	L <b>7</b> %		9%		13%	
				Under	15 15-2	24 💷	25-34 🔳 3	85-44	<b>45-54</b>	∎55-6	4 🔳 65-	74 ∎75-	-				

Table 27: Fatality Rate per 100,000 Population by Age

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year average	10-year average
Under 15	2.2	1.2	2.6	2.0	2.1	1.5	2.1	1.0	1.2	1.7	1.5	1.8
15-24	13.9	11.0	10.3	9.2	8.3	7.1	6.8	7.7	8.2	5.1	7.0	8.8
25-34	9.4	8.6	8.8	6.8	6.4	7.6	6.6	5.8	7.9	7.6	7.1	7.6
35-44	7.9	9.1	7.6	5.2	6.0	5.0	4.1	7.5	3.9	7.0	5.5	6.3
45-54	6.7	9.8	10.0	6.2	6.1	5.2	5.8	6.1	5.6	4.6	5.5	6.6
55-64	9.5	7.6	7.8	7.3	4.7	5.9	7.6	6.9	7.8	6.9	7.0	7.2
65-74	6.3	5.8	7.0	6.5	7.1	7.1	6.6	6.2	5.8	5.2	6.2	6.4
75+	11.8	16.9	14.0	12.1	12.7	10.5	14.3	12.2	10.4	9.3	11.3	12.4
Provincial Total	354	363	364	292	281	269	289	295	288	276	283	307



es by R	egion										
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year average	10-year average
80	76	87	52	54	51	58	56	70	54	58	64
53	37	35	33	43	47	35	44	39	39	41	41
64	58	70	61	46	53	59	58	60	62	58	59
105	135	112	109	100	76	110	99	80	89	91	102
52	57	60	37	38	42	27	38	39	32	36	42
354	363	364	292	281	269	289	295	288	276	283	307
	<b>2008</b> 80 53 64 105 52	80         76           53         37           64         58           105         135           52         57	2008         2009         2010           80         76         87           53         37         35           64         58         70           105         135         112           52         57         60	2008         2009         2010         2011           80         76         87         52           53         37         35         33           64         58         70         61           105         135         112         109           52         57         60         37	2008         2009         2010         2011         2012           80         76         87         52         54           53         37         35         33         43           64         58         70         61         46           105         135         112         109         100           52         57         60         37         38	2008         2009         2010         2011         2012         2013           80         76         87         52         54         51           53         37         35         33         43         47           64         58         70         61         46         53           105         135         112         109         100         76           52         57         60         37         38         42	2008         2009         2010         2011         2012         2013         2014           80         76         87         52         54         51         58           53         37         35         33         43         47         35           64         58         70         61         46         53         59           105         135         112         109         100         76         110           52         57         60         37         38         42         27	2008200920102011201220132014201580768752545158565337353343473544645870614653595810513511210910076110995257603738422738	200820092010201120122013201420152016807687525451585670533735334347354439645870614653595860105135112109100761109980525760373842273839	2008         2009         2010         2011         2012         2013         2014         2015         2016         2017           80         76         87         52         54         51         58         56         70         54           53         37         35         33         43         47         35         44         39         39           64         58         70         61         46         53         59         58         60         62           105         135         112         109         100         76         110         99         80         89           52         57         60         37         38         42         27         38         39         32	20082009201020112012201320142015201620175-year average80768752545158567054585337353343473544393941645870614653595860625810513511210910076110998089915257603738422738393236

# 8. Geographical Analysis of Motor Vehicle Fatalities

As noted in the Definitions section, fatality, injury and crash counts represent police-reported motor vehicle crashes only.

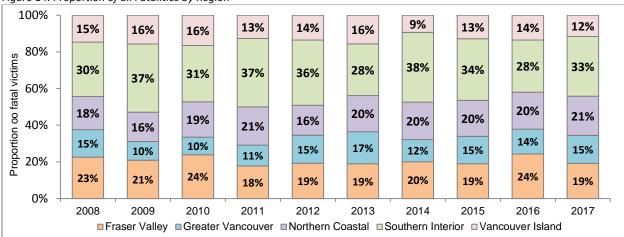


Figure 14: Proportion of all Fatalities by Region

British Columbia's regions include the following:

- Fraser Valley: Includes areas south of Vancouver, including Richmond, Delta, and Surrey, • and as far east as Hope.
- Greater Vancouver: Includes Vancouver to Port Coquitlam, as far North as Whistler, and the eastern parts of the Sunshine Coast.
- Northern Coastal: Includes the Central Interior as far south as 100 Mile House, the Peace • River district, Prince Rupert, Haida Gwaii, and all points north.
- Southern Interior: Includes the southern third of the province, including the Kamloops • area, the Okanagan and Kootenay regions, as far west as Boston Bar and Lillooet.
- Vancouver Island: Encompasses the Gulf Islands and the Mainland coastal community of • Powell River.



The following section examines a geographical representation of all police-reported motor vehicle crashes which resulted in one or more fatalities and the density of police-reported motor vehicle crashes which resulted in at least one injury, specific to each region.



# 9. Geographical Analysis – Fraser Valley

Figure 15a: Police-Reported Motor Vehicle Crashes in Fraser Valley 2017

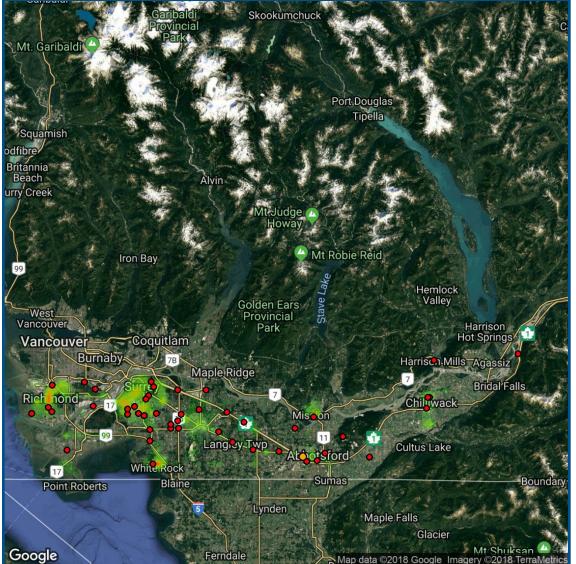
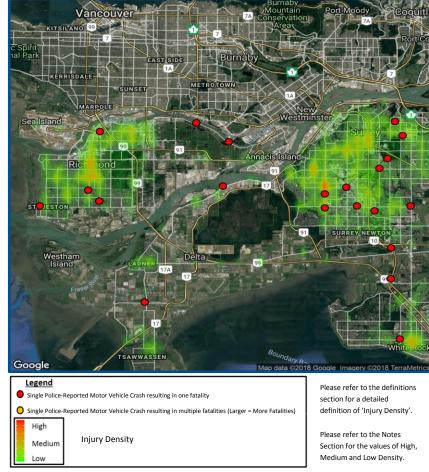


Figure 15b: Fraser Valley – Surrey and Richmond

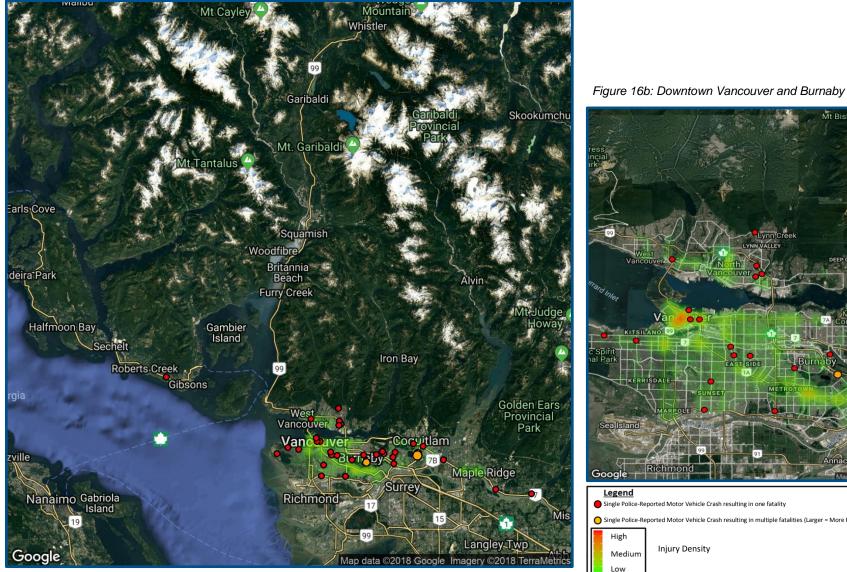


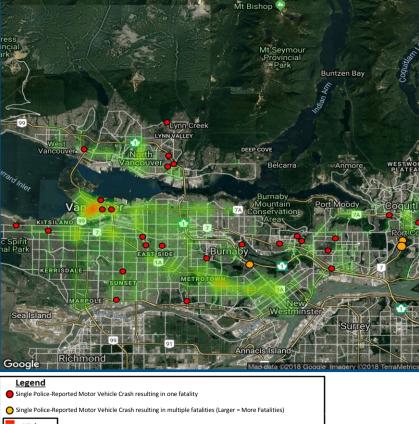
Ministry of Public Safety and Solicitor General RoadSafetyBC RAD 2018-129 October 23, 2018



# **10. Geographical Analysis – Greater Vancouver**

Figure 16a: Police-Reported Motor Vehicle Crashes in Greater Vancouver 2017





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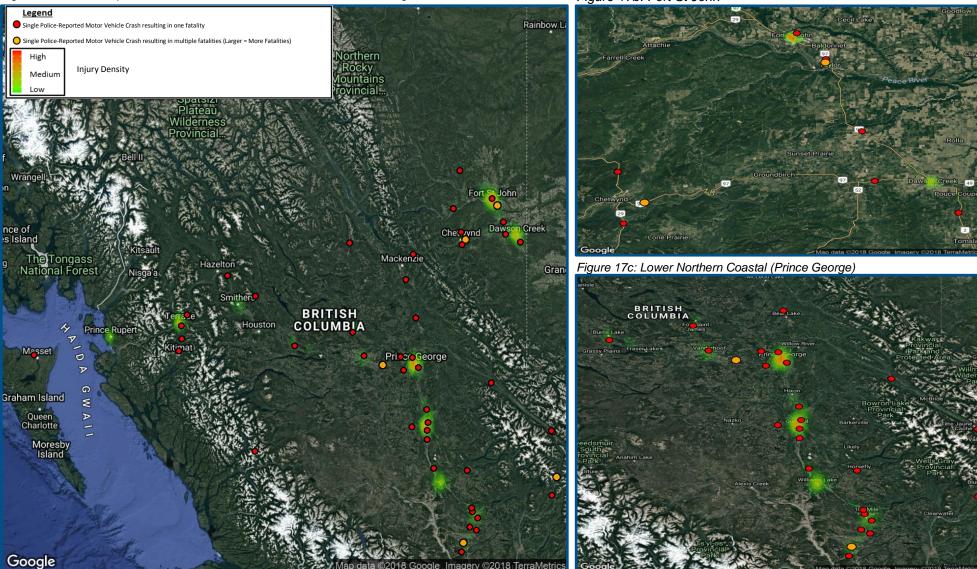
RAD 2018-129 October 23, 2018



# 11. Geographical Analysis – Northern Coastal

Figure 17a: Police-Reported Motor Vehicle Crashes in Northern Coastal Region 2017

Figure 17b: Fort St John





## 12. Geographical Analysis – Southern Interior

Figure 18a: Police-Reported Motor Vehicle Crashes in Southern Interior 2017

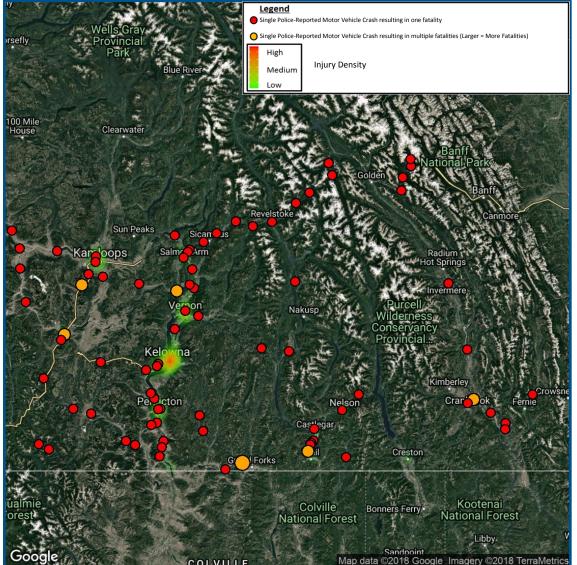


Figure 18b: Kelowna Vernon and Kamloops

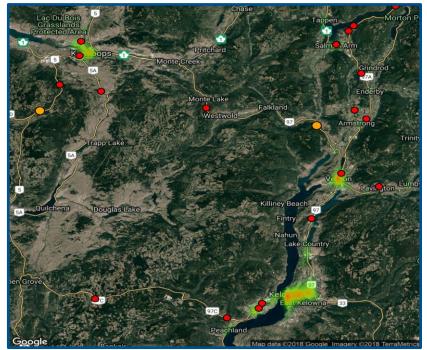


Figure 18c: Kelowna

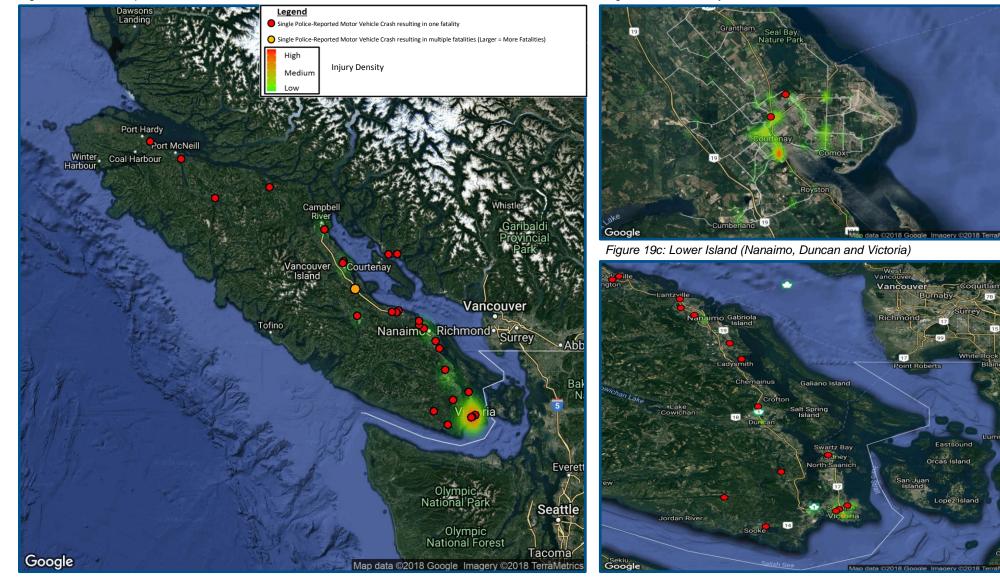


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## **13. Geographical Analysis – Vancouver Island** hes on Vancouver Island 2017 Figure 19b: Courtenay and Comox

Figure 19a: Police-Reported Motor Vehicle Crashes on Vancouver Island 2017





# **Notes: Injury Density Scale Values**

## **Injury Density Values**

Figure 15a	_	High: 80	Medium: 40	Low: 0.1
Figure 15b	_	High: 250	Medium: 125	Low: 0.1
Figure 16a	_	High: 200	Medium: 100	Low: 0.1
Figure 16b	-	High: 300	Medium: 150	Low: 0.1
Figure 17a	_	High: 2.5	Medium: 1.25	Low: 0.1
Figure 17b	_	High: 325	Medium: 162.5	Low: 0.1
Figure 17c	-	High: 4.5	Medium: 2.25	Low: 0.1
Figure 18a	_	High: 9	Medium: 4.5	Low: 0.1
Figure 18b	-	High: 80	Medium: 40	Low: 0.1
Figure 18c	_	High: 600	Medium: 300	Low: 0.1
Figure 19a	_	High: 20	Medium: 10	Low: 0.1
Figure 19b	-	High: 1500	Medium: 750	Low: 0.1
Figure 19c	_	High: 300	Medium: 150	Low: 0.1