CAC Exhibit _____

MPI 2014/15 General Rate Application

Book of documents

September 26, 2013

Public Interest Law Centre
of Legal Aid Manitoba
3rd floor – 287 Broadway
Winnipeg, MB R3C 0R9

Manitoba Public Insurance
Driver Units and Claims Experience by Loss Insurance Year and Driver Age Band

Drivers aged 15 to 24 year old

Loss Insurance Year	Earned Driver Units	Physical Damage Claims Count	Physical Damage Claims Per 1000 Driver Units	Injury Claims Count	Injury Claims Per 1000 Driver Units	Fatalities Count	Fatalities Per 1000 Driver Units	Serious Loss Claims Count	Serious Loss Claims Per 1000 Driver Units
2008	108,385	24,170	223.00	3,297	30.42	23	0.21	14	0.13
2009	109,523	23,247	212.26	3,192	29.14	26	0.24	6	0.05
2010	111,602	24,904	223.15	3,122	27.97	19	0.17	6	0.05
2011	116,540	23,294	199.88	2,873	24.65	37	0.32	5	0.04
2012	117,353	24,811	211.42	2,889	24.62	27	0.23	6	0.05
Total	563,403	120,426	213.75	15,373	27.29	132	0.23	37	0.07

Drivers aged 25 years or older

Loss Insurance Year	Earned Driver Units	Physical Damage Claims Count	Physical Damage Claims Per 1000 Driver Units	Injury Claims Count	Injury Claims Per 1000 Driver Units	Fatalities Count	Fatalities Per 1000 Driver Units	Serious Loss Claims Count	Serious Loss Claims Per 1000 Driver Units
2008	639,919	83,365	130.27	12,674	19.81	91	0.14	37	0.06
2009	650,619	79,391	122.02	12,365	19.00	92	0.14	32	0.05
2010	661,320	88,819	134.31	12,934	19.56	92	0.14	22	0.03
2011	681,634	83,975	123.20	12,035	17.66	90	0.13	18	0.03
2012	693,402	93,049	134.19	12,759	18.40	83	0.12	11	0.02
Total	3,326,894	428,599	128.83	62,767	18.87	448	0.13	120	0.04

As shown in Table 4-5 (on the preceding page), urban areas account for three-quarters (77%) of all collisions in Manitoba, but only one-third of fatal collisions (34%) in 2011 (81% of injury collisions and 76% of PDO collisions). Rural areas account for one-quarter of all collisions (23%), but two-thirds of fatal collisions (66%). This is consistent with historical results. In the previous five year period (2006 to 2010), urban areas accounted for an average of 76% of all collisions, nearly 30% of fatal collisions, 78% of injury collisions, and 76% of PDO collisions.

Nearly six in ten (58%) traffic collisions in 2011 occur in Winnipeg while other urban areas account for 19% of all collisions. In the previous five year (2006 to 2010) annual average, 57% of all collisions occur in Winnipeg and 19% occur in other urban areas.

This pattern holds when we consider both injury and PDO collisions.

- In 2011, more than 68% of injury collisions occur in Winnipeg, 13% occur in other urban areas and 19% occur in rural areas.
- In 2011, 56% of PDO collisions occur in Winnipeg, nearly 21% occur in other urban areas and 24% occur in rural areas.

Fatal collisions represent a marked departure from this overall distribution. In 2011, two-thirds of fatal collisions (66%) occur in rural areas, while 15% occur in Winnipeg and 19% occur in other urban areas. The over-representation of rural areas in fatal collisions is also found within the previous five year (2006 to 2010) annual average, where 69% of fatal collisions occur in rural areas, 20% occur in Winnipeg and more than 9% occur in other urban areas, even though the count of fatal collisions has increased substantially in 2011.

As shown in Table 4-6 (on the following page), "motor vehicle to motor vehicle" collisions account for the majority of collisions in Manitoba, both in 2011 and in the previous five year (2006 to 2010) annual average. In 2011 "motor vehicle to motor vehicle" collisions account for:

- 62% of all collisions;
- 36% of fatal collisions;
- 68% of injury collisions; and,
- 61% of PDO collisions.

Collisions occurring in urban areas are predominantly "motor vehicle to motor vehicle" in nature. In urban areas in 2011, "motor vehicle to motor vehicle" collisions account for:

- 76% of all collisions;
- 25% of fatal collisions;
- 77% of injury collisions; and,
- 76% of PDO collisions.

Collisions occurring in rural areas are predominantly "motor vehicle to animal" in nature, with "motor vehicle to motor vehicle" the second most common configuration, and "ran off roadway" as the third most common. In rural areas in 2011:

- 52% of all collisions are "motor vehicle to animal" in nature (one fatal collision; 17% of injury collisions; 59% of PDO collisions);
- 15% of all collisions are "motor vehicle to motor vehicle" in nature (42% of fatal collisions; 28% of injury collisions; 12% of PDO collisions); and,
- 13% of all collisions are "ran off roadway" in nature (29% of fatal collisions; nearly 26% of injury collisions; more than 10% of PDO collisions).

Collisions with pedestrians (accounting for 1% of all collisions in 2011) account for a high proportion of fatal collisions in Manitoba; nearly 10% of fatal collisions in the province were "motor vehicle to pedestrian". In urban areas, 25% of fatal collisions in 2011 involve a motor vehicle hitting a pedestrian. Considering all collisions of the type "motor vehicle to pedestrian" in 2011, 3% resulted in a fatality and 88% resulted in an injury, relatively consistent with the previous five year (2006 to 2010) annual average.

Table 4-6 Collision Type by Urban/Rural Location

Table 4-6

Collision Type by Urban/Rural Location: 2011, 2006-2010 Average

Collision Type	Location													2006-2010 Average Count of Total Collisions				
	2011 Urban				2011 Rural				2011 Provincial Total				2011 Provincial Total as % of Total					
	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total		Fatal	Injury	PDO	Total	% of Total
Collision with pedestrian	8	286	30	324	1	10	0	11	9	296	30	**335**	1.0%	14	405	6	425	1.5%
Collision with other motor vehicle	8	3,957	16,090	20,055	26	334	814	1,174	34	4,291	16,904	**21,229**	61.9%	32	3,947	15,783	19,763	69.6%
Collisions with train	0	3	7	10	2	0	0	2	2	3	7	**12**	<0.1%	2	5	10	17	<0.1%
Collision with motorcycle	0	66	27	93	3	22	3	28	3	88	30	**121**	0.4%	3	110	48	161	0.6%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	0	0	0	0	**0**	-	-	-	1	1	<0.1%
Collision with bicycle	3	175	34	212	1	4	0	5	4	179	34	**217**	0.6%	3	264	26	293	1.0%
Collision with animal	0	43	884	927	1	200	3,925	4,126	1	243	4,809	**5,053**	14.7%	0	160	3,290	3,450	12.1%
Collision with fixed object	2	267	2,306	2,575	7	153	451	611	9	420	2,757	**3,186**	9.3%	5	238	1,392	1,635	5.8%
Collision with other object	3	224	1,548	1,775	2	43	434	479	5	267	1,982	**2,254**	6.6%	3	52	332	387	1.4%
Overturned in roadway	0	15	25	40	1	105	201	307	1	120	226	**347**	1.0%	9	174	198	381	1.3%
Ran off roadway	8	57	147	212	18	304	688	1,010	26	361	835	**1,222**	3.6%	18	570	1,214	1,802	6.3%
Collision with moped	0	0	1	1	0	0	0	0	0	0	1	**1**	<0.1%	-	-	-	-	-
Other non-collision	0	24	168	192	0	17	116	133	0	41	284	**325**	0.9%	0	9	91	100	0.4%
Total	32	5,117	21,267	26,416	62	1,192	6,632	7,886	94	6,309	27,899	**34,302**	100%	89	5,935	22,391	28,415	100%

Table 5-1 Historical Summary of Victims in Traffic Collisions

Table 5-1
Historical Summary of Victims in Traffic Collisions: 2001 to 2011

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
2001	94	-	521	-	3,525	-	4,270	-	660	-	8,976	-	9,070	-
2002	109	16.0%	467	-10.4%	3,812	8.1%	4,611	8.0%	617	-6.5%	9,507	5.9%	9,616	6.0%
2003	102	-6.4%	499	6.9%	3,829	0.4%	4,719	2.3%	672	8.9%	9,719	2.2%	9,821	2.1%
2004	99	-2.9%	483	-3.2%	3,736	-2.4%	4,308	-8.7%	688	2.4%	9,215	-5.2%	9,314	-5.2%
2005	113	14.1%	421	-12.8%	3,345	-10.5%	3,924	-8.9%	950	38.1%	8,640	-6.2%	8,753	-6.0%
2006	119	5.3%	484	15.0%	3,458	3.4%	3,945	0.5%	819	-13.8%	8,706	0.8%	8,825	0.8%
2007	109	-8.4%	426	-12.0%	3,198	-7.5%	3,994	1.2%	905	10.5%	8,523	-2.1%	8,632	-2.2%
2008	92	-15.6%	396	-7.0%	2,968	-7.2%	3,678	-7.9%	790	-12.7%	7,832	-8.1%	7,924	-8.2%
2009	86	-6.5%	384	-3.0%	2,853	-3.9%	3,288	-10.6%	691	-12.5%	7,216	-7.9%	7,302	-7.8%
2010	87	1.2%	312	-18.8%	2,458	-13.8%	3,170	-3.6%	1,103	59.6%	7,043	-2.4%	7,130	-2.4%
2011	**110**	**26.4%**	**337**	**8.0%**	**2,465**	**0.3%**	**4,306**	**35.8%**	**1,119**	**1.5%**	**8,227**	**16.8%**	**8,337**	**16.9%**
2006-2010 Average*	99	-4.8%	400	-5.2%	2,987	-5.8%	3,615	-4.1%	862	6.2%	7,864	-3.9%	7,963	-4.0%

*The "% change to previous year" for "2006-2010 Average" is an average rate of change for the time period 2006 to 2010.

Table 5-5a Collision Victims by Time of Occurrence and Casualty Type for Previous Five Years

Table 5-5a
Collision Victims by Time of Occurrence and Casualty: 2006-2010 Average

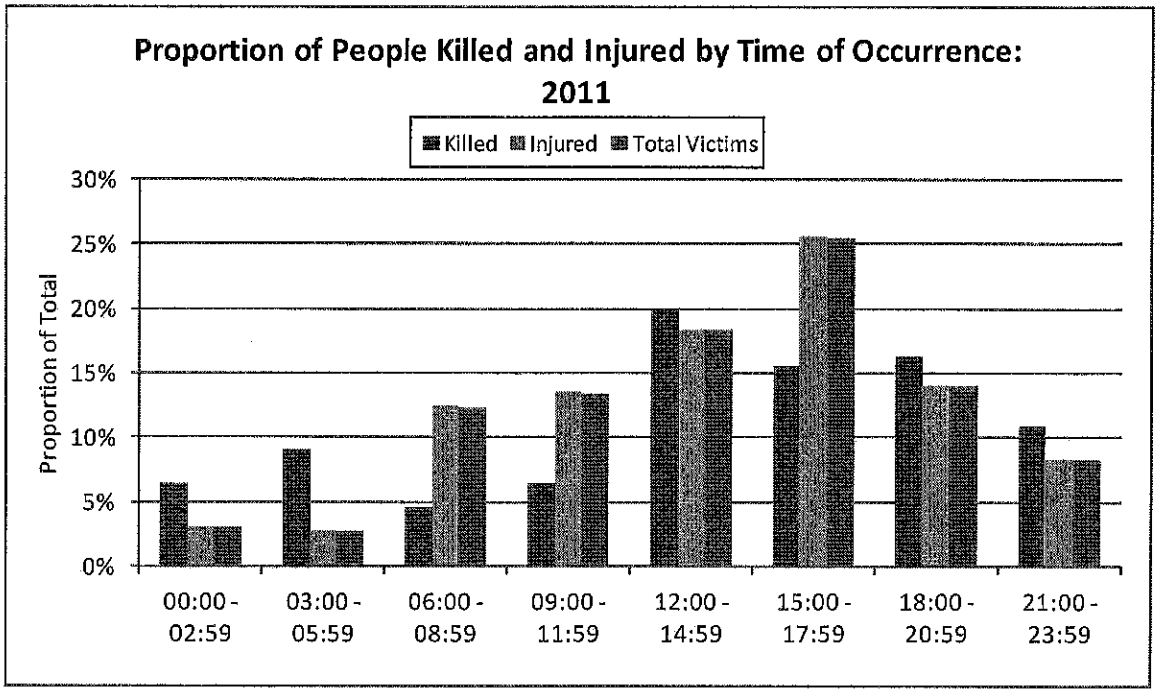
Time of the Day	2006-2010 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
00:00 - 02:59	7	27	117	94	21	260	267	3.4%
03:00 - 05:59	10	21	89	76	16	202	212	2.7%
06:00 - 08:59	8	37	341	403	98	879	887	11.1%
09:00 - 11:59	10	40	388	431	99	957	968	12.2%
12:00 - 14:59	13	58	531	706	159	1,454	1,467	18.4%
15:00 - 17:59	16	85	675	1,008	231	1,998	2,015	25.3%
18:00 - 20:59	14	51	414	453	112	1,030	1,045	13.1%
21:00 - 23:59	12	51	257	290	64	662	674	8.5%
Not Stated	8	31	174	155	62	421	429	5.4%
Total	99	400	2,987	3,615	862	7,864	7,963	100%

People are most often killed and injured in traffic collisions between noon and 6 p.m. In 2011, 44% of all victims are involved in traffic collisions between 12:00 and 14:59 (more than 18%) or between 15:00 to 17:59 (more than 25%). This is consistent with the previous five year (2006 to 2010) annual average (12:00-14:59 – more than 18% of all victims; 15:00 to 17:59 – 25% of all victims).

In 2011, more people are killed between noon and 6 p.m. than at any other time of the day (nearly 36% of people killed), followed by 6 p.m. to midnight (27% of people killed). Combined, 63% of people killed in collisions in 2011 are involved in collisions during this 12-hour period. This is a slight shift from the previous five year (2006 to 2010) annual average, where nearly 57% of people are killed in collisions between noon and midnight. In 2011:

- Nearly 16% of people are killed between midnight to 6 a.m. (00:00-02:59 – more than 6%; 03:00-05:59 – 9%), compared to nearly 18% in the previous five years;
- 11% of people are killed between 6 a.m. and noon (06:00-08:59 – nearly 5%; 09:00-11:59 – more than 6%), compared to 18% in the previous five years;
- Nearly 36% of people are killed between noon and 6 p.m. (12:00-14:59 – more than 20%; 15:00 to 17:59 – nearly 16%), compared to 30% in the previous five years; and,
- 27% of people are killed between 6 p.m. and midnight (18:00-20:59 – more than 16%; 21:00 to 23:59 – 11%), compared to nearly 27% in the previous five years.

Figure 5-4 Proportion of People Killed and Injured by Time of Occurrence



In 2011, it appears that the frequency with which people are injured in traffic collisions is fairly low between midnight and 6 a.m., and then builds through the day, beginning at approximately 6 a.m. and reaching a peak between 3 p.m. and 6 p.m., before falling off abruptly until midnight. The smallest number of people injured in traffic collisions is between midnight and 6 a.m. This pattern can also be seen in the previous five year (2006 to 2010) annual average.

Table 9-2 Contributing Factors for Victims of a Collision by Casualty Type

Table 9-2
Contributing Factors for Each Victim of a Collision by Casualty Type: 2011

Contributing Factor	2011 Casualty Type								2011 Total Casualties	% of 2011 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Driver Action - Driving Properly and Human Condition - Apparently Normal	42	38.2%	134	39.8%	4,814	61.0%	4,948	60.1%	**4,990**	**59.9%**
Driver Action - Driving properly	8	7.3%	25	7.4%	453	5.7%	478	5.8%	**486**	**5.8%**
Any At-fault Driver Action	86	78.2%	182	54.0%	3,449	43.7%	3,631	44.1%	**3,717**	**44.6%**
Following too closely	0	-	8	2.4%	942	11.9%	950	11.5%	**950**	**11.4%**
Turning improperly	0	-	13	3.9%	271	3.4%	284	3.5%	**284**	**3.4%**
Passing improperly	5	4.5%	6	1.8%	30	0.4%	36	0.4%	**41**	**0.5%**
Changing lanes improperly	1	0.9%	0	-	122	1.5%	122	1.5%	**123**	**1.5%**
Fail to yield right-of-way	8	7.3%	24	7.1%	486	6.2%	510	6.2%	**518**	**6.2%**
Disobey traffic control device/officer	8	7.3%	15	4.5%	235	3.0%	250	3.0%	**258**	**3.1%**
Drive wrong way on roadway	2	1.8%	5	1.5%	18	0.2%	23	0.3%	**25**	**0.3%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Back unsafely	0	-	0	-	68	0.9%	68	0.8%	**68**	**0.8%**
Parking improperly	0	-	1	0.3%	10	0.1%	11	0.1%	**11**	**0.1%**
Careless Driving	21	19.1%	30	8.9%	352	4.5%	382	4.6%	**403**	**4.8%**
Lost control/Drive off road	14	12.7%	34	10.1%	318	4.0%	352	4.3%	**366**	**4.4%**
Driverless vehicle ran out of control	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Leave stop sign before safe to do so	3	2.7%	9	2.7%	199	2.5%	208	2.5%	**211**	**2.5%**
Failed to signal	0	-	0	-	4	<0.1%	4	<0.1%	**4**	**<0.1%**
Take avoiding action	1	0.9%	2	0.6%	88	1.1%	90	1.1%	**91**	**1.1%**
Driver inexperience	3	2.7%	7	2.1%	82	1.0%	89	1.1%	**92**	**1.1%**
Pedestrian error/confusion	4	3.6%	4	1.2%	56	0.7%	60	0.7%	**64**	**0.8%**
NET Speed	37	33.6%	56	16.6%	460	5.8%	516	6.3%	**553**	**6.6%**
Exceeding speed limit	4	3.6%	6	1.8%	17	0.2%	23	0.3%	**27**	**0.3%**
Driving too fast for conditions	21	19.1%	39	11.6%	388	4.9%	427	5.2%	**448**	**5.4%**
Unsafe operating speed (Too fast or too slow)	12	10.9%	12	3.6%	61	0.8%	73	0.9%	**85**	**1.0%**

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Contributing Factor	2011 Casualty Type								2011 Total Casualties	% of 2011 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Human Condition - Apparently Normal	19	17.3%	72	21.4%	1,574	19.9%	1,646	20.0%	**1,665**	**20.0%**
Any At-fault Human Condition	44	40.0%	72	21.4%	526	6.7%	598	7.3%	**642**	**7.7%**
Loss of consciousness/Blackout prior to collision	2	1.8%	5	1.5%	21	0.3%	26	0.3%	**28**	**0.3%**
Extreme fatigue/Fell asleep	2	1.8%	7	2.1%	42	0.5%	49	0.6%	**51**	**0.6%**
Defective eyesight	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective hearing	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Medical disability	0	-	3	0.9%	8	0.1%	11	0.1%	**11**	**0.1%**
Physical disability	0	-	0	-	9	0.1%	9	0.1%	**9**	**0.1%**
Mental disability	3	2.7%	0	-	6	<0.1%	6	<0.1%	**9**	**0.1%**
Mental confusion/Inability to remember	1	0.9%	5	1.5%	3	<0.1%	8	<0.1%	**9**	**0.1%**
Sudden illness	1	0.9%	3	0.9%	5	<0.1%	8	<0.1%	**9**	**0.1%**
Distraction/Inattention	9	8.2%	18	5.3%	321	4.1%	339	4.1%	**348**	**4.2%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	27	24.5%	38	11.3%	125	1.6%	163	2.0%	**190**	**2.3%**
Ability impaired alcohol	13	11.8%	31	9.2%	78	1.0%	109	1.3%	**122**	**1.5%**
Ability impaired drugs	2	1.8%	1	0.3%	2	<0.1%	3	<0.1%	**5**	**<0.1%**
Had been drinking/Suspected alcohol use	14	12.7%	7	2.1%	47	0.6%	54	0.7%	**68**	**0.8%**
No Apparent (Vehicle) Defect	72	65.5%	179	53.1%	5,090	64.5%	5,269	64.0%	**5,341**	**64.1%**
Any At-fault Vehicle Defect	2	1.8%	3	0.9%	44	0.6%	47	0.6%	**49**	**0.6%**
Defective brakes	0	-	0	-	8	0.1%	8	<0.1%	**8**	**<0.1%**
Defective steering	0	-	1	0.3%	3	<0.1%	4	<0.1%	**4**	**<0.1%**
Defective headlights	0	-	0	-	2	<0.1%	2	<0.1%	**2**	**<0.1%**
Defective brake lights	0	-	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	1	0.9%	1	0.3%	1	<0.1%	2	<0.1%	**3**	**<0.1%**
Defective engine controls/drive train	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective suspension/wheels	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective tires	1	0.9%	1	0.3%	21	0.3%	22	0.3%	**23**	**0.3%**
Tow hitch/yoke defective	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	0	-	**0**	**-**

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Contributing Factor	2011 Casualty Type								2011 Total Casualties	% of 2011 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	**0**	**-**
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	**0**	**-**
Vehicle modifications	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Fire	0	-	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	0	-	0	-	0	-	0	-	**0**	**-**
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	**0**	**-**
Hydroplaning tires	0	-	0	-	2	<0.1%	2	<0.1%	**2**	**<0.1%**
Any At-fault Environmental Condition	20	18.2%	60	17.8%	1,092	13.8%	1,152	14.0%	**1,172**	**14.1%**
Animal action - Wild	1	0.9%	8	2.4%	266	3.4%	274	3.3%	**275**	**3.3%**
Animal action - Domestic	2	1.8%	3	0.9%	34	0.4%	37	0.4%	**39**	**0.5%**
Slippery road surface	10	9.1%	26	7.7%	522	6.6%	548	6.7%	**558**	**6.7%**
Snow drift	0	-	1	0.3%	38	0.5%	39	0.5%	**39**	**0.5%**
Obstruction/debris on roadway	1	0.9%	1	0.3%	27	0.3%	28	0.3%	**29**	**0.3%**
View obstructed/limited	1	0.9%	6	1.8%	82	1.0%	88	1.1%	**89**	**1.1%**
Glare/reflection	0	-	2	0.6%	30	0.4%	32	0.4%	**32**	**0.4%**
Construction zone	0	-	1	0.3%	4	<0.1%	5	<0.1%	**5**	**<0.1%**
Defective driving surface	0	-	4	1.2%	54	0.7%	58	0.7%	**58**	**0.7%**
Shoulders defective	0	-	2	0.6%	5	<0.1%	7	<0.1%	**7**	**<0.1%**
Lane markings inadequate	0	-	2	0.6%	3	<0.1%	5	<0.1%	**5**	**<0.1%**
Defective/inoperative traffic control device	0	-	0	-	5	<0.1%	5	<0.1%	**5**	**<0.1%**
Weather	4	3.6%	9	2.7%	107	1.4%	116	1.4%	**120**	**1.4%**
Pedestrian corridor in use	0	-	1	0.3%	10	0.1%	11	0.1%	**11**	**0.1%**
Uninvolved vehicle	1	0.9%	0	-	13	0.2%	13	0.2%	**14**	**0.2%**
Uninvolved pedestrian	0	-	0	-	7	<0.1%	7	<0.1%	**7**	**<0.1%**
Presence of prior accident	0	-	0	-	13	0.2%	13	0.2%	**13**	**0.2%**
No Contributing Factor(s) Identified	20	18.2%	69	20.5%	2,516	31.9%	2,585	31.4%	**2,605**	**31.2%**
Not Applicable/Not Stated	0	-	8	2.4%	170	2.2%	178	2.2%	**178**	**2.1%**
Total	110	100%	337	100.0%	7,890	100.0%	8,227	100.0%	**8,337**	**100.0%**

*NOTE: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each casualty type will add to more than the total victims of that casualty type.
"Other Injuries" includes injuries defined as "Minor", Minimal" and "Other", or undefined in severity.

Contributing factors recorded for each vehicle and/or driver involved in the collision are examined at the **victim level** in Table 9-2 and Table 9-2a. In this analysis, the contributing factors recorded for any driver involved in a fatal or injury collision is considered as contributing to the person being killed or injured.

In 2011, at-fault contributing factors are recorded for drivers involved in collisions for more than 56% of all **casualties**. At-fault contributing factors are recorded for:

- 88% of people killed;
- 73% of people seriously injured; and,
- 55% of victims with other injuries (including minor, minimal and undefined injuries).

In 2011, at-fault driver actions are recorded for nearly 45% of **all victims** (78% of people killed and 54% of people seriously injured) while at-fault human conditions are recorded for 8% of all victims (40% of people killed and more than 21% of people seriously injured). Environmental conditions are recorded as a contributing factor for 14% of all victims (18% of people killed and 18% of people seriously injured).

In the previous five year (2006 to 2010) annual average, at-fault driver actions are recorded for 38% of all victims (69% of all people killed and 53% of people seriously injured) – at-fault human conditions are recorded for nearly 13% of all victims (46% of all people killed and nearly 27% of people seriously injured). Environmental conditions are recorded as a contributing factor for 14% of all victims, including for more than 14% of people killed and 19% of people seriously injured.

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2011 include:

- Speed – nearly 34% of people killed and nearly 17% of people seriously injured;
- Distracted driving – 27% of people killed and nearly 14% of people seriously injured;
- Impaired – nearly 25% of people killed and 11% of people seriously injured;
- "Lost control/Drive off the road" – 13% of people killed and 10% of people seriously injured;
- "Slippery road surface" – 9% of people killed and 8% of people seriously injured;
- "Fail to yield right-of-way" – 7% of people killed and 7% of people seriously injured;
- "Disobey traffic control device/officer" – 7% of people killed and nearly 5% of people seriously injured;
- "Passing improperly" – nearly 5% of people killed and 2% of people seriously injured;
- "Weather" conditions – nearly 4% of people killed and 3% of people seriously injured;
- "Pedestrian error/confusion" – nearly 4% of people killed and 1% of people seriously injured;
- "Leave stop sign before safe to do so" –3% of people killed and 3% of people seriously injured; and,
- The actions of a wild animal – 1% of people killed and more than 2% of people seriously injured.

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2006 to 2011, please refer to "*Table 9-11 Historical Summary of Contributing Factors Recorded for Victims of Collisions*" at the end of this section.

Table 9-13 Summary of 'Speed' and 'Impaired' as Contributing Factors

Table 9-13
Summary of Speed & Impaired as Contributing Factors: 2006 to 2011

		2006	2007	2008	2009	2010	2006-2010 average	2011
NET Speed ('Exceeding speed limit', 'Driving too fast for conditions' and 'Unsafe operating speed (too fast or too slow)' combined)								
Collisions	All collisions	1,394	1,640	1,518	1,394	1,640	1,413	**1,627**
		4.4%	5.6%	5.6%	5.2%	6.0%	5.0%	**4.7%**
	Fatal collisions	26	21	21	23	20	22	**30**
		25.0%	21.9%	24.7%	27.7%	20.8%	24.9%	**31.9%**
	Injury collisions	386	501	556	424	285	430	**348**
		5.9%	7.8%	9.3%	7.9%	5.3%	7.3%	**5.5%**
Victims	All victims (killed or injured)	615	750	805	670	457	659	**553**
		7.0%	8.7%	10.2%	9.2%	6.4%	8.3%	**6.6%**
	People killed	33	25	22	24	23	25	**37**
		27.7%	22.9%	23.9%	27.9%	26.4%	25.8%	**33.6%**
	People seriously injured	46	64	76	53	43	56	**56**
		9.5%	15.0%	19.2%	13.8%	13.8%	14.1%	**16.6%**
Driver Involvement (/10,000 drivers)	All collisions	19.2	21.8	19.8	18.5	13.6	18.7	**19.9**
	Fatal collisions	0.4	0.3	0.3	0.3	0.3	0.3	**0.4**
	Injury collisions	5.3	6.7	7.3	5.5	3.6	5.7	**4.2**
NET Impaired ('Impaired by alcohol', 'Impaired by drugs' and 'Had been drinking/Suspected alcohol use' combined)								
Collisions	All collisions	471	424	396	405	373	414	**230**
		1.5%	1.4%	1.5%	1.5%	1.4%	1.5%	**0.7%**
	Fatal collisions	28	36	33	23	21	28	**21**
		26.9%	37.5%	38.8%	27.7%	26.9%	31.6%	**22.3%**
	Injury collisions	197	177	151	160	135	164	**88**
		3.0%	2.8%	2.5%	3.0%	2.5%	2.8%	**1.4%**
Victims	All victims (killed or injured)	362	333	312	293	248	310	**190**
		4.1%	3.9%	3.9%	4.0%	3.5%	3.9%	**2.3%**
	People killed	31	40	38	25	22	31	**27**
		26.1%	36.7%	41.3%	29.1%	25.3%	31.6%	**24.5%**
	People seriously injured	67	60	48	46	40	52	**38**
		13.8%	14.1%	12.1%	12.0%	12.8%	13.0%	**11.3%**
Driver Involvement (/10,000 drivers)	All collisions	6.5	5.6	5.2	5.2	4.7	5.0	**2.7**
	Fatal collisions	0.4	0.5	0.4	0.3	0.3	0.3	**0.2**
	Injury collisions	2.7	2.4	2.0	2.1	1.7	1.8	**0.9**

NOTE: Proportions provided for each contributing factor in a specific category are for the count of contributing factor as a portion of all collisions in the specific category. E.g., the proportion of fatal collisions where speed is a factor is derived from the count of fatal collisions in the specific year where speed is a factor divided by the total fatal collisions in that year.

12

MANITOBA

THE PUBLIC UTILITIES BOARD ACT

THE MANITOBA PUBLIC INSURANCE ACT

THE CROWN CORPORATIONS PUBLIC REVIEW AND ACCOUNTABILITY ACT

Order No. 150/07

November 26, 2007

Before: Graham Lane, CA, Chairman
Leonard Evans, LL.D, Member
Alain Molgat, B.Comm, CMA, Member

MANITOBA PUBLIC INSURANCE: COMPULSORY 2008/09 DRIVER AND VEHICLE INSURANCE PREMIUMS, PREMIUM REBATE, AND OTHER MATTERS.

Index were projected by MPI to be in the range of 2.25%, while annual volume and upgrade increase factors would, in aggregate, approximate 4.75%.

An increase in claims expenses of 3.7% over 2006/07 is projected for 2007/08, with a further projected increase for 2008/09 of 1.6%. Operating expenses attributable to the Basic program were projected to increase to $43.7 million in 2007/08 from $38.6 million in 2006/07, and projected to further increase to $44.7 million in 2008/09.

MPI's safety initiatives continue with a focus on three main priorities:

a) occupant restraint/seatbelt usage;
b) impaired driving prevention; and
c) unsafe speed.

MPI commissioned studies with respect to claims incurred as a result of failure to use a seatbelt and impaired driving, arriving at estimated annual costs attributable to driver and occupant behaviour of $23 million and $35 million, respectively; a similar study with respect to speed remains to be undertaken.

The largest projected road safety expenditure in 2007/08 relates to anti-theft strategies, with Basic's allocated share for road safety projected at $22 million, of which $14.6 million being related to the anti-auto theft strategies. At the hearing, CAC/MSOS gave considerable attention to seeking amendments to MPI's road safety initiatives and contended that without an understanding of the cost drivers from a driver behaviour perspective, it would be difficult to set objectives and cost-effective budgets.

At last year's proceeding, MPI reported on its undertaking to implement a DSR program to replace the current bonus/malus system, forecasting the cost of this initiative at $7.4 million, with an additional $1.7 million to be set aside as a contingency provision. At this year's proceeding, MPI indicated the estimated cost had increased to $10.3 million (plus an additional $2.5 million contingency) and its implementation would be delayed to 2009, following a special Board hearing on the topic to be scheduled for 2008.

understanding of PIPP cost drivers may enhance the Corporation's long-term financial prospects without damaging the overall interest of claimants;

e) MPI's developing research into the causal factors of accidents, to develop awareness of the annual costs of such matters as speeding, impaired driving, lack of driver and passenger restraints, and single-vehicle collisions may assist in road safety program design; and

f) completion of the Business Process Review and the integration of DVL functions within MPI and basic operations - further analyses of operating cost drivers may provide opportunities to, at minimum, slow the growth in operating costs and personnel; and

g) future further road design and road upgrade improvements, to reduce the incidents and severity of collision projects as the twinning of the Trans Canada.

With the stability of the current overall premium level reasonably assured by such factors as the annual vehicle upgrade and volume factors and evidence such as the Baron Report suggesting a degree of stability in PIPP development, and with even an investment portfolio, perhaps too committed to low-yielding bonds, able to generate annual net investment returns in excess of general inflationary factors, the Board observes that changes planned or possible, as indicated above, provide the potential for further reductions in premiums over the long term.

There are risks ahead as well, of course. Ahead of cost analyses, benchmarks and other performance indicators being developed, negative cost trends could worsen further, risking higher premiums. With the dearth of analyses now available to the Board, the Board's optimism, that there is a reasonable prospects that overall future premiums will come down, is constrained.

What also could affect premium levels are further changes to coverage or benefits. MPI has advised of no plans for future benefit or coverage changes of a material nature. It remains the expectation of the Board that any proposals to increase benefits or coverage would be both costed and discussed as a proposal, rather than as a *fait accompli* at a Board hearing. As well, retroactivity with respect to any future material change to benefits affects intergenerational

an awareness of cost experience in other jurisdictions, but also an informed view on the factors driving the differing experiences.

Road Safety

As indicated previously, the prospects for future premium reductions would rise if the incidence and severity of injuries were reduced. Road safety measures are thus the key to premium reductions, and benchmarks need to be developed to allow MPI to effectively assess its road safety actions and plans, particularly with new opportunities now available through the assumption and integration of DVL functions.

The Board, once again, expresses concern with reduced traffic infraction enforcement in Manitoba. MPI is urged to consult with the RCMP, the WPS and the Province to address what appears to be diminished enforcement in the context of persistently high accident and injury claims. The incidence and severity of injuries remain far too high.

In the absence of any indication that improvements will be forthcoming as to traffic enforcement, the Board will consider calling the police, WPS and RCMP, as witnesses for the next MPI proceeding – the matter is vitally important for the board to have to a fuller understanding of issues related to this matter.

MPI reiterated its reports of past hearings that it works to improve road safety by leading or supporting initiatives in partnership with other key agencies. MPI's three main road safety priorities remain:

- occupant restraint usage;
- impaired driving; and
- speeding.

MPI has developed an estimate of the annual claims costs associated with impaired driving ($35 million) and occupant restraint ($23 million), but has yet to develop a similar estimate for speeding. By developing such cost estimates, MPI should be able to establish benchmarks to

compare against experience as it amends its programs, including the new opportunities now to arise through its assumption of DVL functions.

The Board is pleased with MPI's ongoing reports that graduated licensing has reduced the incidence and severity of claims of first-time drivers, and anticipates a report for next year's hearing outlining the experience to-date and prospects for the future.

MPI indicated at this year's proceeding that its road safety initiatives relate to education, training and loss prevention, and that road design and upgrading, including such matters as signage intended to reduce accidents, are not its responsibility, but that of the Province and other governments. MPI reminded the hearing that the anti-theft initiatives are loss prevention actions, and within its mandate.

While the Board urges actions by all involved parties to reduce accidents, through measures ranging from a new DSR, to anti-theft initiatives, to graduated licensing, to the twinning of busy major highways, the Board shares MPI's concern that the Corporation does not end up carrying the costs for measures that should be funded by other parties. There may be a thin line that divides some of the matters that could come under consideration, but it is a line that needs to be carefully monitored.

Environmental Matters

The Board is aware that transportation emissions are a major contribution to overall greenhouse gas (GHG) emissions and a recognized danger to the environment. The Sustainable Development Act (SDA) requires all public bodies to pursue environmental objectives, both the Board and MPI included. The Board understands that older vehicles emit multiples of the CO_2 emissions associated with newer vehicles, and that weight and distance driven also are major factors with respect to the volume of emissions.

The Board continues to note that the potential interplay between insurance and environmental principles remains to be understood, and recommends that MPI conduct further research into environmental concepts. As well, the Board recommends that MPI seek direction from

Undertaking #26

MPI to provide the most recent evaluation of RoadWatch.

Response:

Attached is a copy of the Program Summary Report for 2009.

In 2009, the deployment results show that participating provincial police agencies utilized 3,472.75 person hours, and screened 34,963 vehicles at 273 locations on 112 dates. In doing so, they provided a total of 708 hours of check stop visibility during the program period.

The Corporation also measures the perceptions and attitudes of Manitobans with respect to impaired driving and the perceived risk of being apprehended if they drink and drive. Below is a summary of these indicators, as surveyed near the completion of the RoadWatch annual campaign.

Internal Performance Indicators	Baseline 1998-2002	2004-07 Avg.	Sept. 2008*	Sept. 2009*
% of drivers who drink and report that they had planned or decided not to drive after drinking.	46%	48%	47%	47%
% of drivers who think it is "somewhat likely" or "very likely" for a drunk driver to be stopped by police.	47%	44%	44%	45%
% of drivers who drink who think it is "somewhat likely" or "very likely" for a drunk driver to be stopped by the police.	46%	42%	41%	44%
% of drivers who believe that roadside checks are "effective" or "very effective".	86%	79%	77%	77%

*Source: Prairie Research Associates, Manitoba Omnibus January 2010
PRA's Omnibus is fielded by telephone with a random sample of 800 adult (18+) Manitobans selected by random digit dialing. The theoretical margin of error for a sample this size is +/-3.5%, 19 times out of 20. Subgroups will have a larger margin of error.

highly visible and well publicized. The Manitoba Awareness and Enforcement Integrated Calendar is updated each calendar year and the 2013 calendar is provided in Attachment A.

Sponsorship opportunities and grant funding are also leveraged to support the efforts of like-minded road safety partners and to reach key target demographics with relevant road safety messaging.

The Corporation assesses its programs and campaigns by means of post-implementation evaluations to measure reach, aided and unaided message recall, and as self-reported, the extent to which messaging is persuasive in altering behaviour. Surveys are also used to track the attitudes and perceptions of Manitobans about key road safety risks and consequences, Manitoba Public Insurance-sponsored programs to address them, and the perceived risk of apprehension when drivers engage in dangerous or illegal driving behaviours.

FINANCIAL BREAKDOWN BY PROGRAM AREA

For the year of the application (2014/15), the Corporation's overall budget for road safety and loss prevention programs is projected at $11,587,000 million (basic share). This equates to approximately 1.4% of basic Autopac premiums projected in the same year. Within this overall funding envelope, costs are budgeted by program category as follows:

	Program Category	2014/15 Projected	Percentage of Total Budget
1	**Driver Education** • includes all internal and external expenses, HSDE, Mature Drivers and other driver training programs	$4,346,000	37.5%
2	**Auto Crime** • includes WATSS, WPS, Crown Attorney funding, fingerprinting services, grants, immobilizer incentives	$2,963,000	25.6%
3	**Road Safety Advertising and Sponsorships** • includes various methods to reach a wide and varied audience, including 60-second driver, Winnipeg Free Press tips and CJOB radio, professional sporting sponsorships, partnerships with MADD and TADD, and Safety Services Manitoba – Operation Red Nose, etc.	$2,150,000	18.6%
4	**Road Safety Programming** • includes expenses and program costs for targeted risk groups, which include speed, wildlife, impaired, distracted, motorcycle, ATV/snowmobile, cycling and pedestrians and occupant safety	$1,543,000	13.3%
5	**Road Watch** • includes enforcement and enhancement	$403,000	3.5%
	Surveys/Program Evaluation	$182,000	1.6%
	Total	**$11,587,000**	**100%**

PROGRAM SUMMARIES

The following table provides a summary of the Corporation's road safety programs by category and the road safety issues they address.

Program Category	Impaired Driving	Speed and Aggressive Driving	Distracted Driving	Occupant Restraints	Wildlife Collisions	Motorcycle Safety	Cycling Safety	Pedestrian Safety	ATV and Snowmobile Safety	Auto Crime
1. Driver Education	X	X	X	X	X	X	X	X		X
2. Road Safety Ad & Sponsorship	X	X	X	X	X	X	X	X	X	X
3. Road Safety Programs	X	X	X	X	X	X	X	X	X	
4. Auto Crime		X								X
5. Road Watch	X	X	X	X		X			X	
Surveys/ Program Evaluation	X	X	X	X	X	X	X	X	X	

1. Driver Education

Approximately 38% of the Corporation's total annual road safety budget in 2014/15 ($4.34 million) is used to administer Manitoba's High School Driver Education Program (HSDE) and other driver training programs such as Resource Rangers, Citizens Bridge and Mature Driver training programs.

Approximately 12,000 new teen drivers take advantage of the HSDE program annually at a subsidized cost of $50.00 per student, which is approximately one-eighth of the actual cost of about $400.00 per student. In addition to providing training on rules of the road and how to operate a vehicle safely, the program also aims to shape the attitudes, judgment and decision making of these young new drivers by educating teens about the dangers and consequences of unsafe and illegal driving behaviour.

The HSDE program consists of 34 hours of in-class and 16 hours of in-vehicle driver training (8 hours driving and 8 hours observation), and 24 hours of supervised practice driving with a parent or other qualified supervising driver to reinforce the

Association. In addition to detailed safety information on the Corporation's website, point-of-sale printed materials were developed for distribution through major bicycle sales and repair shops, Manitoba schools, major employers, and community groups.

- *Motorcycle Safety Training Programs* - The Corporation continues to partner with SSM to provide subsidy funding for motorcyclists who complete the 21-hour Canada Safety Council motorcycle safety training program. In 2012 SSM expanded access to this program into every community where the mandatory 8-hour training program is currently offered (Winnipeg, Thompson, Flin Flon, Brandon, Dauphin, and Winkler), making the 21-hour program a legitimate option for every new motorcycle rider over the less comprehensive program.

- *Experienced Rider Program* – With the Corporation's support, SSM has expanded its motorcycle safety training to include an advanced riding program to respond to the needs of experienced riders who are seeking training on advanced riding skills, or motorcyclists who have had no formal training or who are returning to the sport after a break from riding.

- *Deer-Vehicle Collision Hot Spot Mapping* - The Corporation publishes deer-vehicle collision maps that identify collision hot spot locations within Winnipeg and throughout rural Manitoba. These maps have become useful in raising awareness about locations where collisions with deer are most prevalent, particularly given that deer-vehicle collisions account for almost 70% of all reported wildlife collisions based on 2010/2011 data. In 2012 these maps were updated to reflect data from 2007-2011, and are available on the Corporation's website at the following links:
  Winnipeg: http://www.mpi.mb.ca/en/PDFs/WPGwildlifeMAP.pdf
  Rural Manitoba: http://www.mpi.mb.ca/en/PDFs/MBwildlifeMAP.pdf

- *Manitoba School Safety Patrol Program* - Manitoba Public Insurance is a proud sponsor of the Manitoba School Safety Patrol program. In partnership with the Winnipeg Police Service, RCMP, CAA Manitoba, McDonalds restaurants, and the Winnipeg Free Press, the Corporation provides funding for program

equipment (vests and flags) and works with other partners to organize recognition events for school patrol volunteers and their teacher advisors

The Corporation conducts post-program evaluation on all road safety programs to measure the program effectiveness, the extent to which the road safety programs reached its target audience and whether the program is achieving the learning objectives. It also attempts to capture the participant's recall of the program messages and learning outcomes, and whether or not it influenced a change in safety behaviour.

Newfoundland and Labrador Wildlife Program

As to the specific question regarding the Newfoundland and Labrador Wildlife Program, we have learned that in January 2011, a class-action suit was launched against the provincial government claiming compensation for victims of moose collisions. The suit alleges that the province's failure to control the moose population is to blame for the more than 700 moose-vehicle accidents reported annually. To-date the Newfoundland government has spent $5 million in various wildlife initiatives such as moose hunting, fencing, active detection warning alert signs and public awareness campaigns. Results on these programs have been inconclusive. According to the department of Policy, Planning and Evaluation of Newfoundland and Labrador, no other initiatives are in the works, and no other initiatives have or are being evaluated. (News Release – NFLD Initiatives Aimed at Reducing Moose-Vehicle Collisions http://www.releases.gov.nl.ca/releases/2011/tw/0706n03.htm

5. Road Watch

The Corporation continues to provide funding of approximately $600,000 annually to participating Manitoba police agencies to conduct high visibility roadside enforcement to deter impaired driving and other high-risk driving behaviours. The annual program, which runs from May to November of each year, is intended to enhance public awareness about the risks of impaired driving, and encourages motorists not to drink and drive by raising the risk of apprehension through a highly visible police presence on Manitoba roadways. In 2011, the Corporation increased its funding for the Road Watch program by approximately $250,000. The program was also expanded at that time at the request of the RCMP to include monitoring of winter and

Manitoba Public Insurance

Strategic Research

BENEFITS TO MANITOBA PUBLIC INSURANCE OF SEATBELT USE

Prepared by Strategic Research

September 2006

Executive Summary

This project was undertaken to gain a better understanding of the financial impact that seatbelt usage has for Manitoba Public Insurance. This analysis looks at both the cost to MPI of not wearing seatbelts, as well as the savings to the Corporation from the current level of seatbelt usage. Specifically, this project's objectives are to:

i. Estimate the number of lives saved, and injuries prevented from use of seatbelts;
ii. Determine the direct costs incurred by Manitoba Public Insurance from the lack of use of seatbelts; and
iii. Determine the occupant characteristics important in seatbelt use.

The analysis relies heavily on the previous work of the National Highway Traffic Safety Administration (NHTSA) and Transport Canada in the area of seatbelt effectiveness. The data used to generate our estimated counts and dollars came from MPI's claim system (2000 to 2005 claims). The study also only looks at the occupants (drivers and passengers) of passenger cars, passenger vans, light pick-up trucks, and SUVs.

In the analysis of benefits attributable to the wearing of seatbelts, we estimated the number of occupants that were exposed to potentially fatal, non-minor and minor collisions. Seatbelt effectiveness rates from Transport Canada and NHTSA, as well as actual seatbelt usage rates from the claims information were used to determine the number of lives saved and injuries prevented. In calculations detailed in Appendix I and II, we estimated that annually, 32 occupant lives were saved, and about 3,440 occupant injuries were prevented because of the benefits of wearing seatbelts. **From a cost perspective, this translates into an estimated savings to MPI of between $93.8 and $100.7 million per annum from lives saved and injuries prevented from the use of seatbelts.**

We found from our claims data that about 10 percent of passenger vehicle and light truck occupants (who are claimants), each year are not buckled. This translates to an average of 842 unbelted occupants with claims per annum. Further the analysis found that the average ultimate cost per claim for unbelted and belted occupant was $34,754 and $7,757 respectively.

This represents a $26,997 difference in average ultimate cost per claim between the unbelted and belted occupants. **The estimated additional cost to MPI from the 842 occupants not wearing their seatbelts is $23 million per annum.**

The profile of seatbelt users in our study is similar to results found in other seatbelt studies. We found that:

- Women are more likely than men to wear seatbelts;
- Drivers are more likely than passengers to wear seatbelts;
- Occupants of passenger vehicles are more likely than occupants of light trucks to wear seatbelts;
- Occupants aged 25-64 years are more likely than occupants aged 24 years or younger to wear seatbelts; and
- Occupants in weekday crashes are more likely than occupants in weekend crashes to wear seatbelts.

Undertakings #25 and #29

MPI to provide budget as well as the actual expenditures for 2009/10, and provide the approved line-by-line budget for RoadWatch for 2010/11.

MPI to indicate what its current expenditures are, in terms of the existing impaired driving for the impaired driving RoadWatch programming.

Response:

The following chart identifies the Basic share of budgeted and actual expenditures on the RoadWatch program for the 2009/2010 year, by participating police agency:

Police Agency	Budget	Actual
Brandon	$81,846	$86,102
Dakota	$9,094	$6,074
Morden	$5,456	$6,236
RCMP	$122,769	$102,484
Rivers	$5,456	4,475
Winkler	$5,456	$3,138
Winnipeg	$50,017	$54,339
East St. Paul	$6,366	Nil
Totals	**$286,460**	**$262,848**

The budgeted funding for RoadWatch activities in 2010/11 (Basic share) by participating police agency is as follows:

Police Agency	Budget
Brandon	$85,110
Dakota	$8,959
Morden	$5,375
RCMP	$120,946
Rivers	$5,375
Winkler	$5,375
Winnipeg	$60,921
Totals	**$292,061**

2013 Manitoba Awareness and Enforcement Integrated Calendar

Manitoba Public Insurance

JANUARY

Speed

MPI AD CAMPAIGN:	ENFORCEMENT:
Illusion of Control dio, billboards)	Dedicated speed enforcement

Snowmobile Safety

MPI AD CAMPAIGN:	ENFORCEMENT:
NCI Radio (17 wks)	Dedicated speed enforcement

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **January 3 - Winter driving – too fast for conditions**
- **January 10 - Young drivers and speed**
- **January 17 - Snowmobile safety**
- **January 24 - Snowmobile safety**
- *January 31 - Crossing slippery bridges/overpasses*

MAY

Impaired Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
MADD TV commercial, Radio (Long Weekend), Billboards (12 wks)	RoadWatch, Road Safety Week

Motorcycle Safety

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio, outdoor	

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **May 2 - Impaired driving**
- *May 9 - Funeral processions*
- **May 16 - Road Safety Week (May 15-23)**
- **May 23 - Safe grad**
- **May 30 - Alcohol related crashes**

SEPTEMBER

Back to School Safety

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio WPS AD CAMPAIGN: JUSTSLOWDOWN	Speeding in school zones

Impaired Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio (Long Weekend)	RoadWatch

SUPPORTED BY:
Possible MPI media event, 60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **September 5 - Back to school safety**
- **September 12 - TADD**
- *September 19 - Cycling safety*
- **September 26 - Pedestrian safety**

FEBRUARY

Intersections

WPS AD CAMPAIGN:	ENFORCEMENT:
TV, radio, billboards JUSTSLOWDOWN	Red lights and rural intersections

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **February 7 - Intersection IQ**
- **February 14 - Winter intersections**
- **February 21 - Highway intersections**
- *February 28 - Seat belts*

JUNE

Cycling, Pedestrian Safety

WPS AD CAMPAIGN:	ENFORCEMENT:
TV, radio, billboards JUSTSLOWDOWN MPI AD CAMPAIGN: Cycling: TBD	Speeding in school zones

Commercial Vehicles

I AD CAMPAIGN:	ENFORCEMENT:
	Roadcheck 2013

SUPPORTED BY:
MPI news release/possible media event with MPI summer students, 60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **June 6 - Cycling safety**
- **June 13 - Commercial vehicles**
- **June 20 - Sharing the road**
- *June 27 - Impaired driving*

OCTOBER

Occupant Restraints

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio, billboards (rural MB)	Operation Impact, Semi-annual survey

Impaired Driving

...I AD CAMPAIGN:	ENFORCEMENT:
Radio (Long Weekend)	RoadWatch

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **October 3 - Car Seats**
- **October 10 - Impaired driving**
- **October 17 - Seat belts**
- **October 24 - Booster seats**
- *October 31 - Halloween safety*

MARCH

Occupant Restraints

MPI AD CAMPAIGN:	ENFORCEMENT:
Media event NCI Radio	Semi-annual survey

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- *March 7 - Daylight saving time*
- **March 14 - Booster seats**
- **March 21 - Child car seats**
- **March 28 - Air bags**

JULY

Impaired Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio (Long Weekend) Billboards	RoadWatch

ATV Safety

I AD CAMPAIGN:	ENFORCEMENT:
Media event	Dedicated enforcement

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- *July 4 - Parallel parking*
- **July 11 - ATV safety**
- *July 18 - Motorcycles*
- **July 25 - ATV safety**

NOVEMBER

Distracted Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Famous Last Words (TV, radio, outdoor) Media Event	Education and enforcement

Wildlife

...I AD CAMPAIGN:	ENFORCEMENT:
Radio	Education and enforcement

SUPPORTED BY:
MPI news release, 60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **November 7 - Wildlife**
- **November 14 - Distracted Driving**
- **November 21 - Distracted Driving**
- *November 28 - Operation Red Nose*

Friends for Life Speaker Series (Nov 18 to 29)

APRIL

Distracted Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Famous Last Words (TV, radio, outdoor) Media Event	Dedicated enforcement

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **April 4 - Cell phones are distractions**
- **April 11 - Don't be tempted to use cell phone**
- *April 18 - Motorcycles*
- **April 25 - Distracted driving**

AUGUST

Impaired Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Radio (Long Weekend) Billboards	RoadWatch

Speed

MPI AD CAMPAIGN:	ENFORCEMENT:
	Dedicated enforcement

SUPPORTED BY:
60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **August 1 - Impaired driving**
- **August 8 - Speeding on highway**
- **August 15 - Too fast for conditions**
- *August 22 - Traffic circles*
- **August 29 - Impaired driving**

DECEMBER

Impaired Driving

MPI AD CAMPAIGN:	ENFORCEMENT:
Operation Red Nose	Christmas Checkstop Program

SUPPORTED BY:
Possible MPI media event with police agencies, 60-Second Driver, Manitoba Driver, *Winnipeg Free Press* Driving Tips:
- **December 5 - Impaired driving**
- *December 12 - Winter driving*
- **December 19 - Impaired driving**
- **December 26 - Safe driving**

Manitoba Driver is a news service for community newspapers that provides road safety advice. *Winnipeg Free Press Driving Tips* are published every Thursday to deliver road safety messages (*Note: the specific topics listed on this calendar may change slightly.*) Aired on CTV, *60-Second Driver* segments demonstrate safe driving practices.

Manitoba Public Insurance

RoadWatch 2009

Program Summary

Road Safety Department

Impaired Driving Section

Section One: Introduction

Drinking and driving continues to be a significant road safety risk in Manitoba and remains one of the Corporation's three top road safety priorities, along with speed and non-use of occupant restraints.

- In the ten year period from 1998 to 2007, 376 people died on Manitoba roadways due to the actions of an impaired driver[1], and overall, impaired driving contributes to one-third (34%) of all driving fatalities[2].

- In 2007, more than four in ten (43.5%) fatally injured drivers had a positive BAC reading; the vast majority of these drivers (92.6%) recorded an illegal alcohol reading[3].

- Under Road Safety Vision 2010, one sub target is to reduce by 40%, the percentage of road users fatally or seriously injured in crashes involving a drinking driver. In Manitoba, fatalities associated with a drinking driver in 2006 were 11.6% higher than during the baseline period (1996-2001) although serious injuries in 2006 were 19.5% lower than those recorded during the same baseline period.

Canadian attitudes towards impaired driving

Public responses from the TIRF Road Safety Monitor 2009 survey show that:

- One in five (19%) of Canadians admitted to driving after consuming some alcohol during the past 30 days.

- One in twenty (5.6%) of Canadians admitted to driving when they thought they were over the legal limit in the past 12 months.

- One in five (19.8%) of Canadians – an estimated 6.7 million – know a family member or close friend who has been the victim of a drinking and driving collision that they did not cause.

- One in seven (16.5%) of Canadians – an estimated – 5.6 million – know of a family member or close friend who was drinking and driving and caused an impaired driving collision where they were at fault.

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[1] Traffic Injury Research Foundation (TIRF) Report: The Alcohol-Crash Problem in Canada 2007, **Draft January 2010**, Section 7.0 Manitoba, p. 109

[2] Ibid., p. 109

[3] Ibid., p.103

- Eight in ten (79.2%) Canadians indicated they are very or extremely concerned about drinking and driving.

Manitoban's attitudes towards impaired driving

MPI's January 2010 Omnibus surveys of drivers indicate that[4]:

- Nearly one in twenty (4%) of drivers who drink, report that they drove when they thought they might be over the legal blood alcohol level at least once in the past two months.
- Over half (55%) of drivers think it is unlikely that a police officer will stop a drunk driver, including 18% who believe it is very unlikely.

[4] MPI January 2010 Omnibus Survey

Section Two: The RoadWatch Program

The primary objective of the Corporation's RoadWatch program is to reduce alcohol-related collisions in Manitoba through a combination of visible deterrence and offender detection.

Studies have shown that only significant, visible enforcement will increase a motorist's perceived risk of apprehension. An evaluation of ICBC's CounterAttack program in 1997, which operates very similar to RoadWatch, observed that "no reductions in alcohol-related crashes were observed for months where the number of motorists encountering roadchecks fell below 20% of the resident population, irrespective of the number of DWI Criminal Code charges laid (Mercer et all, 1996)". In other words, for roadside checks to be effective as a deterrent, 20% of motorists must encounter them.

During traditional Christmas check stop periods, it is typical for at least 20% of motorists to report having encountered roadside enforcement. However, outside of the December/January holiday period, visible enforcement typically declines.

MPI's RoadWatch program specifically funds increased roadside enforcement outside of the normal Christmas period (May to November), as a way to increase driver's perceived risk of apprehension during these periods.

Indeed, according to MPI Omnibus results, 22% of drivers surveyed in September 2009 reported seeing roadside checks in the two months prior to the survey period, which eclipsed the 20% mark, and was the same percentage reported in the January 2010 survey results following the traditional Christmas check stop period.

Public opinion also clearly supports the need for visible police check stop enforcement. Manitoba Public Insurance's January 2010 omnibus survey indicates that eight in ten drivers (81%) say enforcement, such as roadside checks, is effective in discouraging drinking and driving. Similarly, a Traffic Injury Research Foundation 2009 survey of Canadians found that close to two in three (63.6%) Canadians agreed that there should be more visible police enforcement for drinking drivers.

The sections that follow highlight the results from the RoadWatch roadside check stop program.

Section Three: 2009 Program Details

Each year, the RoadWatch initiative provides 32 weeks of police enforcement coverage from May 1st to November 30th. The holiday season is not included in the MPI funded RoadWatch enforcement program.

Recognizing only significant enforcement activity has an impact on increasing the perceived risk of being apprehended, the RoadWatch program is intended to supplement existing impaired driving countermeasures of law enforcement agencies outside the traditional Christmas period by providing even greater visibility.

In 2009, MPI also agreed to expand a portion of its funding to the Winnipeg Police Service to conducts a number of "area saturation" operations which generally required less officers and targeted locations where impaired drivers were most likely to be. These operations were conducted in the late evening and early morning on Check stop dates following the more traditional high-visibility roadside operations which were conducted in the early evenings.

These area saturation exercises are identified in the remainder of this report as the WPS pilot project.

Table 3.1 illustrates the 2009 deployment dates:

Table 3.1 Deployment Dates

Police Agency	Dates	Locations	Hours	Manpower Hours	Vehicles Screened
RCMP	26	85	255.25	1,513.75	9,245
Morden	4	9	28.75	253.25	1,896
Brandon	38	84	159.50	951.00	18,118
Dakota Ojibway	4	7	20.50	154.00	932
Winnipeg Police – High Visibility Operation	12	39	54.50	383.75	2,425
Winnipeg Police – Area Saturation Pilot Project	20	33	148.75*	N/A	N/A

Total Highway Traffic Act Convictions
By Year and Police Jurisdiction: 2003 to 2012

Year	Jurisdiction				Total
	Winnipeg	RCMP	Brandon	Other	
2003	32,780	23,782	2,959	11,273	70,794
2004	27,342	17,434	2,879	10,777	58,432
2005	25,835	14,388	2,027	9,565	51,815
2006	27,692	20,155	2,529	10,635	61,011
2007	20,992	23,878	2,895	11,034	58,799
2008	25,200	24,442	2,266	9,470	61,378
2009	44,170	24,608	1,891	9,304	79,973
2010	44,790	24,803	2,424	10,599	82,616
2011	48,686	24,483	2,199	10,373	85,741
2012	**55,909**	**25,120**	**2,351**	**9,450**	**92,830**
% Change '11-'12	14.8%	2.6%	6.9%	-8.9%	8.3%
'07-'11 Average	36,768	24,443	2,335	10,156	73,701

Manitoba Public Insurance
2014/15 General Rate Application

A Review of Road Safety Programs of Manitoba Public Insurance and International Good Practice

Mavis Johnson
Canadian Traffic Safety Institute
8553 Flowering Place
Burnaby, B.C., V5A 4B4

September 11, 2013

Table 3[13]

	Per 100,000 Population[14]		Per Billion Vehiclekilometers[15]		Per 100,000 Licensed Drivers	
	Fatalities	Injuries	Fatalities	Injuries	Fatalities	
Canada	6.5	500.0	6.6	504.1	9.5	
N.L.	5.5	404.1	5.8	426.2	7.7	
P.E.I.	6.3	451.9	6.9	493.7	9.1	
N.S.	7.4	513.0	6.9	476.9	10.2	
N.B.	12.4	458.7	11.5	425.9	16.9	
QUE.	6.1	548.6	6.6	594.2	9.4	
ONT.	4.3	477.3	4.5	498.3	6.2	
MAN.	7.0	570.5	7.2	583.9	11.0	
SASK.	16.0	625.9	12.8	499.5	23.1	
ALTA.	9.2	490.5	6.6	349.5	12.4	
B.C.	8.0	461.5	10.1	579.3	11.6	
Y.T.	11.6	636.6	7.9	433.9	15.4	
N.W.T.	6.8	257.8	9.4	353.6	12.1	
NVT.	6.1	124.9	60.2	1,234.6	48.3	

NOTE: Vehicle Kilometres data for 2010 were estimated using average annual growth rates for the previous five years. Data for Ontario are preliminary.

13 Transport Canada Traffic Collision Statistics.2010

14 Statistics Canada, Annual Demographic Estimates: Canada, Provinces and Territories, 2011, Catalogue No. 91-215-X.

15 Statistics Canada, Canadian Vehicle Survey, Catalogue No. 53-223-XIE.

Inter-Jurisdictional Comparison of Casualty Rates (2001-2010)
(per billion motor vehicle-kilometers)

Jurisdiction	Fatalities									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Canada	9.0	9.3	8.9	8.8	9.3	8.9	8.3	7.4	6.6	6.6
Newfoundland	9.3	10.0	11.0	9.7	9.8	8.5	9.4	8.0	6.9	5.8
Prince Edward Island	12.2	14.3	12.0	22.6	11.3	25.0	5.6	14.9	9.4	6.9
Nova Scotia	8.2	8.5	6.7	9.4	7.1	8.4	9.3	8.6	7.2	6.9
New Brunswick	11.7	12.2	11.8	9.6	13.6	12.3	11.0	9.6	8.3	11.5
Quebec	8.8	9.9	8.4	9.0	10.6	10.3	8.8	8.1	7.1	6.6
Ontario	7.3	7.1	7.3	6.6	6.3	6.0	6.2	5.0	4.2	4.5
Manitoba	8.3	10.8	8.5	9.5	10.3	9.9	7.9	8.1	7.3	7.2
Saskatchewan	13.0	12.3	12.1	11.0	13.2	12.2	10.6	12.2	11.8	12.8
Alberta	10.0	10.1	9.8	9.9	10.6	10.0	9.6	8.6	7.1	6.6
British Columbia	11.7	12.4	12.9	12.4	13.9	12.9	11.6	9.9	10.5	10.1
Yukon	10.9	25.3	14.1	9.4	12.3	24.2	10.3	15.4	13.7	7.9
Northwest Territories	7.5	8.4	8.2	9.6	5.4	5.3	13.9	11.8	15.9	9.4
Nunavut	47.6	N/A	N/A	33.7	N/A	N/A	N/A	132.5	65.1	60.2

Jurisdiction	Injuries									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Canada	713.0	721.2	711.0	680.8	668.0	604.2	584.4	549.2	518.7	504.1
Newfoundland	690.2	701.2	768.5	699.1	537.1	501.3	519.0	385.9	508.9	426.2
Prince Edward Island	896.0	789.8	753.3	759.5	565.7	803.6	565.6	496.5	596.2	493.7
Nova Scotia	647.6	574.0	504.1	533.2	487.7	470.8	577.9	743.6	751.5	476.9
New Brunswick	686.5	592.3	572.5	572.9	508.5	452.3	459.5	482.2	480.7	425.9
Quebec	707.5	749.1	754.3	778.0	871.2	711.1	678.6	632.1	592.2	594.2
Ontario	705.4	679.4	669.2	599.8	571.5	525.2	534.8	479.9	490.7	498.3
Manitoba	799.3	948.9	795.9	890.8	788.4	729.1	617.1	689.1	615.9	583.9
Saskatchewan	547.5	652.7	618.0	647.1	612.8	604.4	509.0	541.0	526.0	499.5
Alberta	682.4	783.6	671.8	621.5	555.1	570.7	513.2	464.2	385.6	349.5
British Columbia	838.5	776.6	902.5	842.4	873.3	789.5	725.5	613.1	562.6	579.3
Yukon	836.7	572.6	468.3	397.4	396.4	434.5	427.0	461.4	341.1	433.9
Northwest Territories	512.8	643.2	471.4	485.2	505.7	294.3	435.0	408.8	419.8	353.6
Nunavut	N/A	N/A	N/A	2,222.2	N/A	N/A	461.5	1,357.6	1,368.1	1,234.6

Source: Transport Canada, Canadian Motor Vehicle Traffic Collisions: 2010, Catalogue No. T45-3/2010E-PDF, 2012.

*Data for Ontario are preliminary for 2010.
*N/A: Data is not available.

Road Safety Expenses - Basic's Share
($ in thousands)

	2006/07 Actual	2007/08 Actual	2008/09 Actual	2009/10 Actual	2010/11 Actual	2011/12 Actual	2012/13 Actual	2013/14 Forecast	2014/15 Projected
Driver Education and Improvement	2,605	2,797	2,912	2,929	3,006	3,444	3,102	3,307	3,407
Impaired Driving Prevention Strategies	414	421	473	419	445	806	877	724	749
Speed Management Strategies	372	362	348	280	391	313	330	281	290
Occupant Safety Education Strategies	203	296	282	293	424	269	357	308	317
Auto-Crime Prevention Strategies	15,626	16,874	17,640	15,522	7,772	5,023	4,190	4,046	2,963
Motorcycle Safety Education	53	86	77	104	96	106	108	98	101
Vulnerable Road User Education Strategies	113	111	128	112	163	240	135	213	220
Safety Programming Other	329	431	382	404	436	395	363	375	386
Safety Grants and Sponsorships	207	212	191	197	190	300	261	262	270
Driver Education Process Review	-	40	-	-	-	-	-	-	-
Road Safety Production and Advertising	170	228	180	205	290	371	347	360	371
Program Evaluation	28	14	357	203	74	140	103	110	113
Cell Phone/Distracted Driver Advertising	-	-	-	266	295	4	183	225	233
Other	-	-	-	53	57	29	-	-	-
Departmental Expenses	2,312	2,656	2,800	2,591	3,119	3,598	2,448	2,117	2,167
Road Safety Initiatives (Driver Ed /Infrastructure)	-	-	-	-	-	-	303	-	-
Total	22,432	24,528	25,770	23,578	16,758	15,038	13,107	12,426	11,587

APPROVED BUDGETS AND ACTUALS
ROAD SAFETY AND LOSS PREVENTION PROGRAM COSTS
($ in thousands)

BASIC'S SHARE	2008/09			2009/10			2010/11			2011/12			2012/13		
	Actual	Forecast (2009 GRA)	Diff	Actual	Forecast (2010 GRA)	Diff	Actual	Forecast (2011 GRA)	Diff	Actual	Forecast (2012 GRA)	Diff	Actual	Forecast (2013 GRA)	Diff
Driver Education and Improvement	2,912	3,182	(270)	2,929	3,357	(428)	3,006	3,319	(313)	3,444	3,410	34	3,102	3696	(594)
Impaired Driving Prevention Strategies	473	575	(102)	419	588	(169)	445	589	(144)	806	602	204	877	917	(40)
Speed Management Strategies	348	374	(26)	280	333	(53)	391	358	33	313	303	10	330	402	(72)
Occupant Safety Education Strategies	282	294	(12)	293	333	(40)	424	289	135	269	362	(93)	357	372	(15)
Auto-Crime Prevention Strategies	17,640	18,885	(1,245)	15,522	11,451	4,071	7,772	4,708	3,064	5,023	6,948	(1,925)	4,190	4276	(86)
Motorcycle Safety Education	77	72	5	104	85	19	96	71	25	106	73	33	108	74	34
Vulnerable Road User Education Strategies	128	177	(49)	112	157	(45)	163	216	(53)	240	221	19	135	260	(125)
Safety Programming Other	382	344	38	404	354	50	436	390	46	395	399	(4)	363	410	(47)
Safety Grants and Sponsorships	191	331	(140)	197	294	(97)	190	290	(100)	300	296	4	261	277	(16)
Road Safety Production and Advertising	180	213	(33)	205	216	(11)	290	279	11	371	286	85	347	294	53
Program Evaluation	357	460	(103)	203	265	(62)	74	165	(91)	140	183	(43)	103	191	(88)
Cell Phone/Distracted Driver Advertising				266	-	266	295	179	116	-	183	(183)	183	37	146
Driver Education On-Line Curriculum				-	-	-	-	179	(179)	4	-	4	-	92	(92)
Other				53	-	53	57	71	(14)	29	75	(46)	-	60	(60)
Total	22,970	24,907	(1,937)	20,987	17,433	3,554	13,639	11,103	2,536	11,440	13,341	(1,901)	10,356	11,358	(1,002)

b) In 2013/14, the Corporation will offer the following road safety and driver education programs and initiatives:

- The High School Driver Education Program;
- Driver Ed Challenge;
- Citizens Bridge Adult Driver Education Program;
- Support for motorcycle, scooter, snowmobile, and ATV training programs and workshops for mature drivers offered through Safety Services Manitoba;
- Road Watch;
- Support for Teens Against Drunk Drivers (TADD) and Safe Grad-related initiatives;
- Mock Car Collision;
- Support for the PARTY Program (Manitoba Brain Injury Association);
- Support for Manitoba Addictions Awareness Week;
- MADD Canada multi-media presentations in Manitoba schools;
- Friends for Life Speaker Series and Northern Speaker Series;
- Support for Report Impaired Drivers 911 program;
- Operation Red Nose;
- Rethink Road Safety Youth Video Challenge;
- Community-based Speed Watch program, School Zone Speed Watch program, and the Speed Watch residential loaning program;
- Wildlife-related awareness initiatives;
- Manitoba Child Car Seat program;
- Citizens on Patrol program (COPP);
- Manitoba School Patrols program;
- Cycling Safety initiatives targeting children, teens, and adult commuter/recreational cyclists;
- Mini-Car Town, bicycle rodeos, and support for other community-based road safety awareness events;
- Collaboration with the Alzheimer's Society and the Transportation Options Network on presentations to raise awareness of how the aging process can affect driving ability and options for post-licensure transportation alternatives;

- Various public and community presentations including use of air bag deployment demonstrations, the rollover simulator, and simulated impaired driving activities using pedal cars and fatal vision goggles;
- 60-Second Driver;
- Mass media advertising focused primarily on drinking and driving, speed, seatbelts, distracted driving, motorcycle safety, and wildlife collisions;
- Integrated Awareness and Enforcement Calendar;
- Various corporate sponsorships which provide opportunities for the Corporation to educate a variety of target audiences on key road safety risks.

All current initiatives are expected to be continued in 2014/15.

c) No studies or analyses have been undertaken or commissioned by the Corporation having to do with the impacts of red light cameras or photo radar.

PUB (MPI) 1-102 **Reference: Supporting Materials SM.5.4 Page 29**

With respect to road safety programming, please summarize the findings of the most recent "*post-program evaluation on all road safety programs to measure program effectiveness*".

RESPONSE:

The Corporation has not conducted an overall evaluation of its road safety programs. Rather, it has conducted internal evaluations of specific programs and initiatives and those evaluations are tailored to the nature of the initiative. Generally, when new road safety programs and initiatives are developed, the Corporation establishes objectives and then evaluates the program to determine the extent to which those objectives have been achieved. A decision is then made whether to continue with the initiative. Program evaluation reports have been filed over the years in past GRA's. Examples include evaluation of the Road Watch program filed as an Undertaking for the 2011 GRA, and evaluation of the Wildlife Collision Reduction Pilot study filed in PUB (MPI) 1.67 of the 2013 GRA. The final report of the Formative Evaluation of the High School Driver Education program is also provided in PUB (MPI) 1-95 of this year's GRA.

New programs/initiatives that have been implemented and evaluated include the Friends-for-Life Speaker Series and the Report Impaired Drivers 911 (Brandon) program. Existing programs such as the Manitoba Child Car Seat program and the Speed Watch program are also reviewed on an as-needed basis. Copies of these evaluation reports have been provided electronically only.

CAC (MPI) 1-51 Reference: SM.5.4 Road Safety

Preamble: "The Corporation assesses its programs and campaigns by means of post-implementation evaluations to measure reach, aided and unaided message recall, and as self-reported, the extent to which messaging is persuasive in altering behaviour".

Please elaborate if MPI is in a position to measure actual claims incurred reductions as a result of its Road Safety programming. If yes, please provide a supporting analysis.

RESPONSE:

As mentioned in hearings over the years, the Corporation is not in a position to measure actual claims incurred reductions as a direct result of its road safety awareness campaigns.

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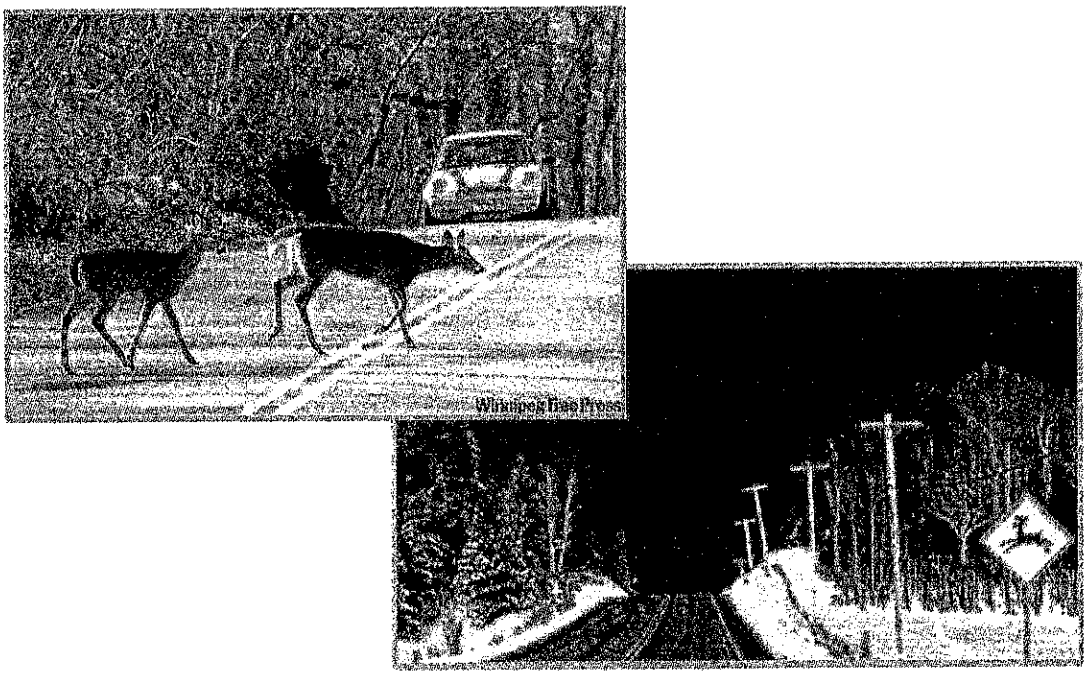
Manitoba Public Insurance

Wildlife Collision Reduction Pilot Intervention 2011

Program Evaluation



May 2012

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Evaluation Rationale

1.1 Issue

Approximately 10,000 wildlife-related collisions are reported to Manitoba Public Insurance (MPI) annually at a total cost of approximately $30 million. Approximately 66% of these claims involve collisions with deer.

Detailed analysis of wildlife collisions from 2006 to 2009 reveals some commonality in terms of when deer-vehicle interactions are most prevalent. On a monthly basis, nearly 50% of collisions with deer occur from September to December with 28% of all collisions occurring in the months of October (13%) and November (15%). Based on time of day, 16% of collisions occur during the early morning (dawn) and 51% of collisions occur from sunset (dusk) to late evening. It is during these time periods that wildlife is most active and light levels are low.

Geographically however, deer-vehicle collision mapping undertaken by the Corporation in recent years (see appendices), demonstrates that collisions are widely dispersed throughout Manitoba. Even the most prevalent "hot spots" for deer-vehicle collisions account individually for a very small percentage of overall claims costs. These include areas around Birds Hill Park which account for 2.2% of total deer-vehicle collision claims costs, areas in and around Brandon (2.9%), the Central region including Carman, Morden and Winkler (3.3%), and in the City of Winnipeg where deer collision costs account for 6.2% of total province-wide costs on average.

Given the extent to which wildlife collisions are so widely dispersed throughout the province, it is challenging to design and execute effective intervention strategies that can produce sound return on investment in terms of reduced wildlife collisions and associated claims costs, beyond general public awareness initiatives to educate Manitobans on regions most vulnerable to wildlife-vehicle interaction and driver-targeted strategies to reduce collision risk such as reducing speeds during peak months of the year and times of the day, and being attentive to wildlife activity at roadside.

1.2 Development of the Pilot

In 2010, Manitoba Public Insurance undertook a jurisdictional review of best practices relating to wildlife collision mitigation strategies. These findings were reported to the Public Utilities Board as part of the 2011 General Rate Application. At that time, the Corporation committed to exploring cost-effective

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strategies to reduce wildlife collisions which would be most effective in the Manitoba environment.

Following an in-depth analysis of deer-vehicle collisions (DVCs) in Manitoba, potential applications for a pilot were considered, which would best balance anticipated effectiveness, risks, ability to monitor and assess outcomes, short and long term costs, and availability of internal and partner resources.

In the City of Winnipeg there were 410 deer-vehicle collisions on average from 2006-2009. This equates to 6.2% of all deer collisions over the same period, although with considerable variability from year to year with actual collisions ranging from a low of 380 in 2008 to a high of 464 in 2009 (22% spread). Within the city limits the most notable collision areas are Charleswood, Tuxedo, St. James (Murray Park), northeast Winnipeg, and parts of St. Vital. The appendix titled *"Deer Vehicle Collision Data for Top 6 Winnipeg and 2 Near Urban Hot Spots"* provides an overview of the deer-vehicle collision hot spots in the City of Winnipeg based on 2006-2009 claims data.

In consultation with stakeholders, the Corporation prepared to conduct a small-scale wildlife collision reduction study during the fall of 2011 in partnership with the City of Winnipeg and the Winnipeg Police Service. The study was conducted on two corridors in south Winnipeg (Roblin Boulevard and Wilkes Avenue).Together, these study sites account for approximately 25% of all deer-vehicle collisions in the City of Winnipeg making them locations that would theoretically produce the greatest potential impact in terms of reduced deer-vehicle collisions and associated claims costs.

1.3 Objectives of the Pilot

The objectives of the Wildlife Collision Reduction Pilot were as follows:

- ✓ Create awareness of risk of collision with deer in the targeted study areas;
- ✓ Educate drivers on how they can reduce their risk (primarily by being alert and slowing down);
- ✓ Reduce free mean speeds along the pilot corridors, and;
- ✓ Reduce the frequency and/or severity of deer-vehicle collisions along the two study corridors.

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About the Pilot

2.1 Locations Selected

The two study sites selected for the 2011 initiative in southwest Winnipeg were Roblin Blvd. and Wilkes Ave. from Shaftesbury Boulevard to the Perimeter Highway. (See map)

As indicated, together these two corridors have accounted for the highest volume of deer-vehicle collisions in the City of Winnipeg along two continuous stretches of roadway. With a combined average of 92 collisions per year they account for almost 25% of all deer-vehicle collisions in the City of Winnipeg, resulting in annual claims costs in excess of $265,000 on average.

Other factors which made these sites useful for the study are as follows:

- Both corridors have substantial traffic volumes as a result of residential developments in the area;
- The close proximity of these two sites provided efficiency and value from a local communications perspective;
- There are substantial enough differences between the two corridors to make comparative evaluation useful (i.e. posted speed limits are different and one corridor is a two-lane roadway while the other is a four-lane);
- The close proximity of the two sites would facilitate planning and monitoring.

Wildlife Collision Reduction Pilot - Fall 2011

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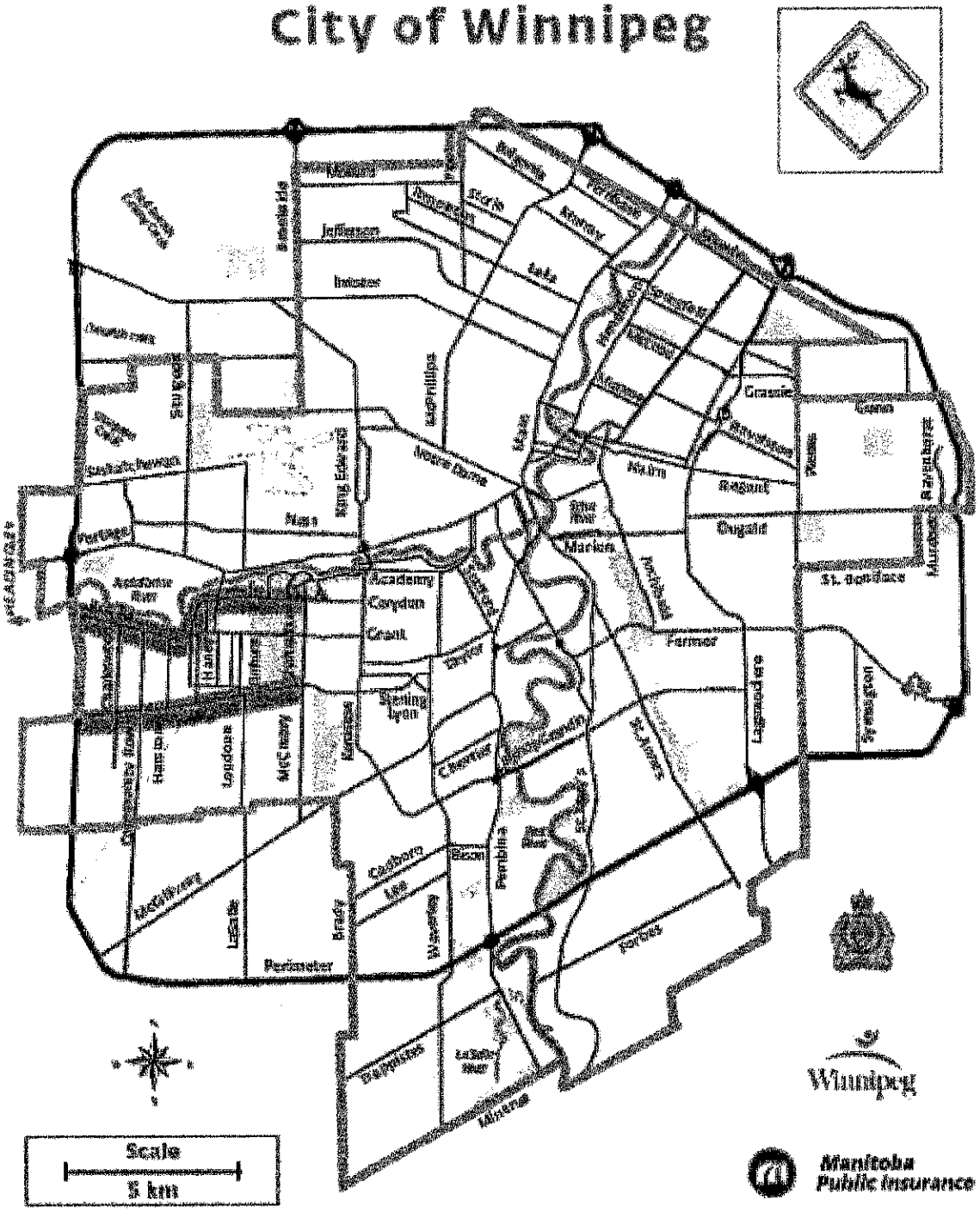

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2.2 Intervention Strategies

The Wildlife Collision Reduction Study involved three separate, yet complementary strategies which were intended to create awareness and cooperation of area residents in slowing down while traveling through the designated areas. Each of the strategies was identified through the Corporation's research as cost-effective approaches that have produced meaningful outcomes when applied in other jurisdictions.

1. Conspicuous Seasonal Road Signage:

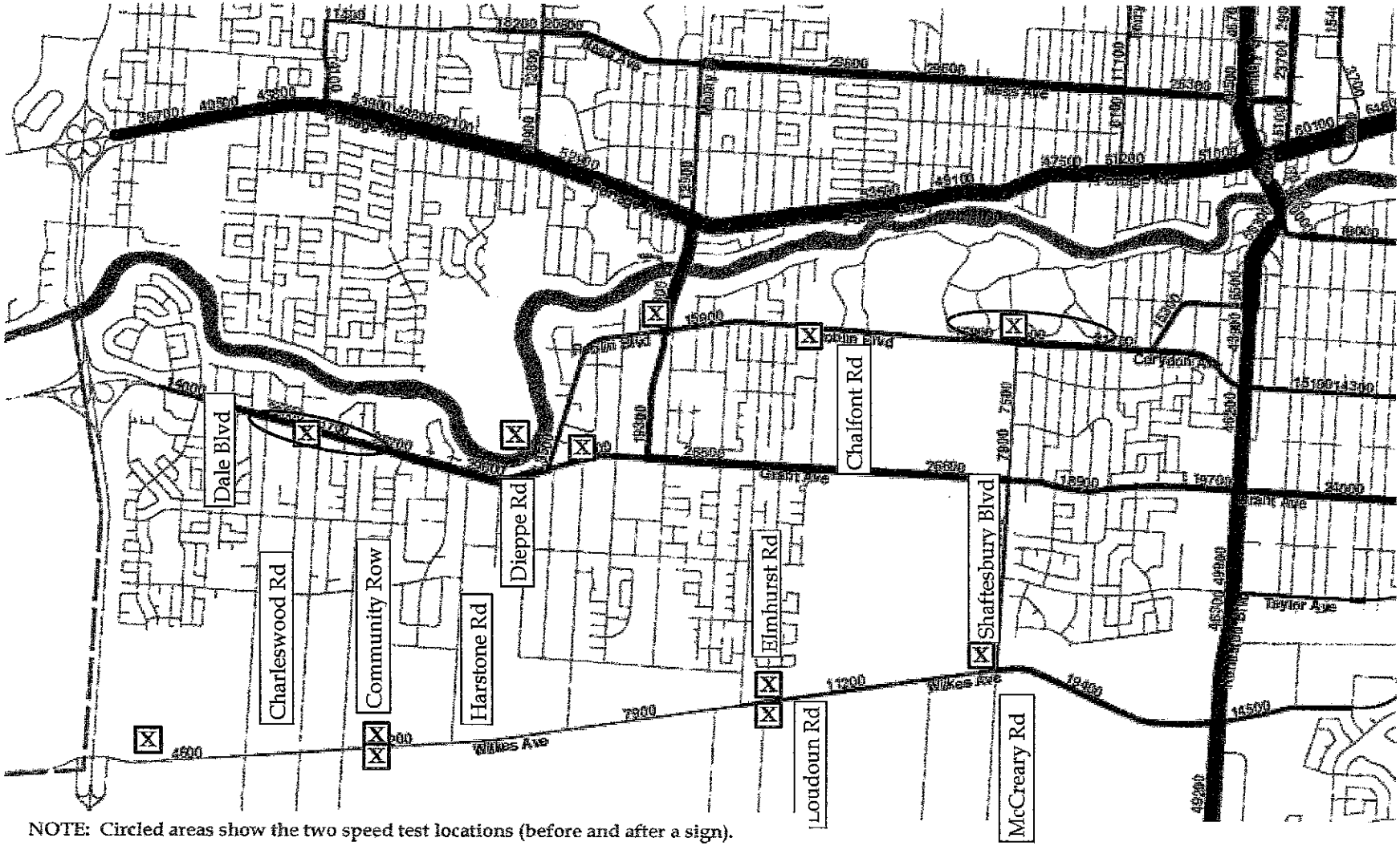
A series of Variable Message System (VMS) portable electronic roadside message boards were strategically positioned in both directions (six on each roadway), each rotating two flashing messages warning of the risk of deer-vehicle collisions and reminding drivers to slow down and stay alert. A total of twelve VMS boards were deployed for the duration of the study period with specific locations identified in Figure 1.

A review of prevention strategies in other Canadian and U.S. jurisdictions identified the use of seasonal roadside signs as an effective, yet cost-reasonable strategy to heighten awareness of wildlife activity and encourage safe driving behavior.

The Corporation worked collaboratively with the City of Winnipeg and its representative from Guardian Traffic Services to identify the most appropriate and effective locations for each VMS board. Guardian Traffic Services was also contracted to provide, install and secure 10 of the 12 boards, and to maintain and upkeep them throughout the study period, including frequent checks on the positioning of all boards and proper function of the messages. Two additional VMS boards were provided by the City of Winnipeg and also maintained by Guardian Traffic Services during the study period.

Although typically advantageous to rotate VMS boards to different areas to reduce location wear-out and provide exposure to other areas, this project maintained the positions for two primary reasons: (1) to measure driver response over time; and (2) the number of possible positions for the VMS boards was limited due to their size and need to strategically address key entry points from other roadways.

Figure 1 – VMS Sign Placement (X) Against 2009 Average Weekday Daily Traffic



NOTE: Circled areas show the two speed test locations (before and after a sign).

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2. Targeted Communication:

In addition to the provincial communication campaign undertaken by Manitoba Public Insurance each year, a local campaign targeting Charleswood, Tuxedo and Headingley residents was conducted during the study period. Supportive communication components included the following:

- ✓ A mail-out brochure was dropped through Canada Post during the first week of the study period to residences and businesses within the targeted areas (R3R, R3S, R3P, R4H, and R4J). The brochure specifically identified these areas as being high volume deer-vehicle collision locations and urged drivers to be cautious when driving on the study corridors.
- ✓ The same brochure was distributed by law enforcement during traffic stops along the two roadways during the study period. This served to extend the message to non-residents who utilize these roadways and reinforce the messaging to area residents who had received the mailing directly. (See Appendices for layout and content of the brochure.)
- ✓ A print ad with similar messaging was placed in the community newspapers servicing the areas of Charleswood, Tuxedo, and Headingley; once in early October 2011 and once again as a reminder in early November 2011. (See Appendices for a copy of print ad.)
- ✓ The Corporation issued one news release and hosted a media event to coincide with launch of the pilot to enhance awareness of the initiative among local residents as well as Winnipeg residents in general. (See Appendices for copy of the news release and two articles summarizing the on-site news event on Roblin Blvd just east of Charleswood Rd).

3. Selective Speed Enforcement:

Winnipeg Police Service (WPS) participated in the wildlife collision reduction study by providing enhanced speed enforcement along the two study corridors on weekdays from October 5 through to November 30, 2011. WPS targeted hours of the day when the risk of deer-vehicle collisions is known to be highest and traffic volumes are also high:

- ✓ Dawn (from 7:30am to 9:00am)[1]
- ✓ Dusk through to early evening (5:00pm to 8:00pm)

[1] Although dawn occurs earlier than 7:30am in October, these hours of enforcement were deemed acceptable given the unlikely availability of traffic officers earlier than 7:30am, a much greater overtime rate before 7:30am, and a much greater volume of traffic after 7:30am.

WPS conducted heavier speed enforcement during the first three weeks of the pilot, followed by lower levels of enforcement ("maintenance") during the remaining five weeks. In "maintenance" weeks a pair of officers divided their time (morning or evening shift) by corridor, and rotated that order each weekday. During the heavy enforcement period there was visible enforcement along each corridor at targeted times on every week day.

Offence notices were issued to motorists who significantly exceeded the speed limit. As time permitted (particularly once vehicles began to slow down as a result of the visible police enforcement), police gave verbal warnings to drivers slightly exceeding the speed limit. When other offences were noted, police officers issued notices for those offences as well.

As indicated, during all traffic stops police distributed the informational material which provided a positive reason for the stop while extending the awareness and education initiative to those living outside the study areas where the targeted mail drops were conducted.

The Corporation agreed to fund the enhanced enforcement effort during dusk periods, while the WPS contributed the resources to conduct the enhanced enforcement during the early morning periods.

Additional tasks carried out by WPS included the positioning of speed measurement devices at two test locations to measure free speeds of motorists, and reporting of speed data before and during the campaign for subsequent analysis.

2.3 Interventions Considered but not Pursued

As an alternative to electronic variable message boards, the Corporation considered the feasibility of working with the City of Winnipeg to erect highly visible LED lighted wildlife warning signs. These were considered appealing because of their conspicuousness, relatively low cost, and documented effectiveness in another Canadian market (B.C.). This approach was tentatively supported by the City of Winnipeg but ultimately declined by Manitoba Infrastructure and Transportation because of concerns with the use of these signs when not specifically approved for use in the Manual of Uniform Traffic Control Devices for Canada.

The Corporation also explored the feasibility of seeking a reduction in the posted speed limits along the two study corridors during the study period, which when combined with selective police enforcement, could have had a meaningful impact in reducing free mean speeds in the study sites. This strategy was not supported

by the City of Winnipeg, although the Winnipeg Police Service did provide enhanced enforcement of the current posted speed limits along these roadways which was still expected to have a meaningful effect in modifying driver speeds.

2.4 Information and Data Collection

Enforcement data was collected by police officers for both pilot corridors, including offence notices issued for speeding over the limit (more than 10 km/h over the speed limit), number of verbal warnings given (when driving 5 to 10 km/h over the posted speed limit) and number of brochures handed out. The number of offence notices issued for other HTA offences was also tracked and supplied.

Vehicle speeds were tracked at two locations on Roblin Blvd, using four discreet radar monitoring devices. Three of these devices were supplied by the Winnipeg Police Service and one was acquired specifically for the pilot study. Initial plans included the tracking of vehicle speeds on Wilkes however appropriate locations proved to be unworkable for collection of such data.

Local resident awareness and impressions of the pilot were collected via a telephone survey towards the end of the campaign from November 21-December 13, 2011. The strategy for this part of the evaluation was to compare levels of awareness and impressions among the core target market to those in Winnipeg overall. The research vendor (Prairie Research Associates) provided a random sample of 478 adult Winnipeggers, plus an over-sample of core neighborhoods around the pilot corridors, resulting in 400 adult residents of Charleswood and Tuxedo, all selected by random digit dialing. The margin of error on the Winnipeg sample is +/- 4.6% and for Tuxedo/ Charleswood sample it is 5.0% (each sample 19 times out of 20).

Claims Collision data were extracted for the two pilot corridors, comparing October and November 2011 (pilot year) to previous years to determine if the strategies identified as "best practice" when executed in complementary fashion, had any measurable impact in terms of reductions in deer-vehicle collisions and associated claims costs.

It should be noted that exact collision location is based on self-reported information and recollection from claimants and is therefore subject to some error. Every effort was made to aggregate corridor collision data in the same way throughout the years however improvements in claims reporting protocols may also result in slight changes from year to year.

Project Schedule

The pilot initiative ran from October 5, 2011 to November 30, 2011. These are the peak months of the year for deer-vehicle collisions. Pre-pilot vehicle speeds were also measured for two weeks prior to the pilot launch.

Table 3.1 – Project Schedule

Project Activity	Week of										
	Sept 19, 26	Oct 3	Oct 10	Oct 17	Oct 24,31	Nov 7	Nov 14	Nov 21	Nov 28	Dec 5	Feb
Vehicle speed measurements	(pre-pilot)								→Nov 30		
Brochure mail-out to pilot residents		Oct 4-6									
Community newspaper ads											
Enforcement – "Heavy"		Oct 5→									
Enforcement – "Maintenance"					Oct 26 →				→Nov 30		
Variable message signs		Oct 5 3pm →							→Nov 30		
Media event and news release		Oct 7									
Local resident survey											
Collision data retrieval for Oct and Nov											
Report											

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Project Budget

The initial estimated cost of the study was $106,000, including evaluation components to determine relative success and potential application to other "hot spots" throughout Winnipeg and rural Manitoba.

The pilot was implemented within budget and actual costs were $88,131.27. Variances to budget resulted from the following factors:

- ✓ Some incurred costs were slightly less than budgeted;
- ✓ Only one speed measuring unit (JAMAR) was required for purchase since Winnipeg Police Service had three to loan for the study period.
- ✓ The actual cost to MPI for police enforcement (258 actual hours) was less than budgeted (330 planned hours).

Table 4.1 - Final Project Expenses

Signage: Rental of 10 large variable message signs (Model 1210, character size 12"x18") , installation and maintenance, incl. 7% PST	$44,097.00
Overtime Evening Enforcement: (258 actual hours) *(Not including resource costs absorbed by WPS on weekday mornings)*	$17,626.39
Local Community (Weeklies) Newspaper Ad Placement: Two dates for each of: Metro, Headliner, and Sou'Wester Full color / 6.375"(w) x 9.5"(h) / 6.437"(w) x 9.5" (h)	$4,487.21
Brochure Printing: (23,000 copies), including 7% PST	$1,916.38
Brochure Mailout: (Canada Post unaddressed mail fees)	$2,080.89
Evaluation:	
Purchase of one speed measuring radar units: (JAMAR)	$3,614.00
Resident survey: (pilot FSAs in Winnipeg)	$14,200.00
TOTAL:	$88,131.27

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Results

5.1 Process Review

Process review is important, since any deviation from an intended process could hinder the effectiveness of the pilot.

- ✓ VMS Sign Size and Placement:
  Results from the local resident telephone survey confirm that signs were noticed by 98% of those who drove daily on the routes. There were two complaints regarding placement (obstructing a turn, and light from sign shining into home), both of which were resolved by slight adjustment. One additional concern came from a police officer.
- ✓ VMS Functioning and Incidents:
  For the amount of time the units were used, the units functioned very well. After 1.5 weeks, two of the VMS boards were broken into and the messages changed to mischievous and offensive wording. The incident received news coverage for a few days. The media reported the incident with a humorous tone, and public response was surprisingly positive with many endorsing the initiative and the need for drivers to slow down. The incident resulted in improved anti-break-in features (industrial locks, off-site storage of remote control units, and new passwords). Since 100% message break-in proofing could not be guaranteed, quality control checks were increased from every other day to daily.
- ✓ Brochure distribution:
  The local resident telephone survey confirms that the brochure was recalled by at least 18% of targeted residents in Winnipeg. That said, police officers reported that drivers who were handed a brochure almost always expressed some familiarity with the brochure, saying they had received one in the mail, suggesting very good exposure. An additional 915 brochures were distributed by police during roadside stops, representing 89% of all drivers stopped during the study period.
- ✓ Media Relations:
  The pilot launch and news release resulted in expected amount of media activity. At the MPI-Winnipeg Police Service joint news conference on October 7, attending media included: CBC-TV, CBC-Radio, CTV, Winnipeg Sun, Winnipeg Free Press and CJOB. *(See Appendix for a copy of the news release, and examples of related news coverage.)*
- ✓ Enhanced Enforcement:
  Total traffic patrol time (258 hours) was less than planned (330 hours). With the exception of statutory holidays, virtually all scheduled morning shifts were staffed by four officers as planned as these shifts were easy to fill on a voluntary basis.

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For various reasons, police reported more difficulty in staffing evening shifts which resulted in fewer officers being deployed during these evening periods, although this had no impact to the level of police visibility. It should also be noted that during the second week of the pilot, officers assigned to conduct speed enforcement on Wilkes elected to redirect their efforts to Roblin where traffic volumes were higher and enforcement activities more active. This resulted in an over-abundance of enforcement outputs on Roblin during week 2 of the pilot at the expense of enforcement on Wilkes.

- ✓ Vehicle Speed Measurement:

  The original plan included speed measurements along both corridors; however, in the end, measurements were not possible on Wilkes due to incompatible curbside conditions. Although this reduced the understanding of speed outcomes on the Wilkes section, enforcement activity outcomes have provided a reasonable proxy for the speeding behaviour trend along Wilkes.

5.2 Local Resident Survey

- ✓ This pilot campaign resulted in a proven, greater issue recognition in the core pilot neighborhoods -- at least 50% higher than achieved in Winnipeg overall. A total of 91% of residents in Charleswood and Tuxedo *(compared to 60% of Winnipeggers overall)* recalled some information recently about driving safely when there are wildlife in the area; and with prompting, recalled the print ad, the brochure, or new road signage.
- ✓ The unprompted source of recall (in the pilot area) for any recent information heard or seen was overwhelmingly (7 in 10) for "roadside signage"-- the lead tactic of the pilot campaign, with 83% prompted recall -- indicating a lasting impression. The brochure and the community newspaper ads played supportive roles, as expected, recalled by few initially, but by more once described (26% and 18% respectively).

  (Of course, recognition can be much higher when presented with the actual marketing piece. In fact, police officers reported that whenever they handed drivers a brochure, there was immediate recognition and acknowledgement that they had received this in the mail.)

Table 5.1 – Measures of Campaign Recall

		Winnipeg Overall	Core Pilot Areas: Charleswood and Tuxedo
N=Respondents		(478)	(400)
Unaided recall: Any info about driving safely when there may be wildlife, such as deer, in the area	a)	43%	77%
Aided recall: Newspaper ad about driving safely in areas where deer are known to be around	b)	14%	26%
Aided recall: Brochure in the mail, featuring the yellow deer crossing warning sign and information about how to reduce your risk of a wildlife collision	c)	6%	18%
Aided recall: New sign by the side of the road or on the boulevard featuring short electronic messages related to driving safely when there are deer in the area, for example saying "be alert for deer"	d)	34%	83% (98% for daily corridor drivers)
NET RECALL: Wildlife safety info, print ad, or brochure	a,b, or c	48%	83%
NET RECALL: Wildlife safety info, print ad, brochure, or signage	a,b,c,or d	60%	91%

- ✓ Asked what road safety tips they recalled from the campaign, the tips "slow down" and "be alert" (the key messages of the pilot campaign) were recalled more often than other tips (69% and 36%, respectively), and recalled more often by pilot residents compared to Winnipeggers at large.
- ✓ By campaign tracking standards, the pilot campaign was reasonably persuasive. Agreement that the communication elements recalled convinced drivers to slow down and to be alert (41% and 46% strong agreement, respectively, in the pilot area) was only slightly lower than the norm for MPI TV campaigns (49%) which have the added advantage of employing emotion.
- ✓ Although the persuasiveness of the communication elements recalled was no higher than the persuasiveness of the "base" annual campaign in Winnipeg overall, importantly, a much higher proportion of adults and drivers (two-thirds more) in the target areas were reached, allowing these key messages to be seen or heard. This is the intent of target marketing. Even more important, in the pilot area, the key messages were seen at the very place where residents need to be alert and to slow down – on the road, on the highest risk corridors in Winnipeg.

Table 5.2 – Message Recall and Persuasiveness of Campaign

	Winnipeg Overall	Core Pilot Areas: Charleswood and Tuxedo
N=Respondents	(478)	(400)
Unaided safety tip recall: slow down	61%	69%
Unaided safety tip recall: be alert	25%	36%
Campaign convinces you to slow down	40% strong agreement	41% strong agreement
Campaign convinces you to be alert	44% strong agreement	46% strong agreement
Aided recall: Police presence has increased on Wilkes Avenue or on Roblin Boulevard as compared to before October	8%	35% (55% for daily corridor drivers)

- ✓ A majority of residents in the area said the information they recalled convinced them to slow down.
- ✓ Enforcement was clearly observed to have increased, with 1 in 2 (55%) daily users of the pilot corridors saying it had increased since October 2011. Such awareness is known to provide a strong deterrence for speeding.
- ✓ Related to this last point, it was encouraging for traffic patrol officers that drivers who were giving a warning almost always expressed gratitude to the officer for patrolling traffic in their area.

5.3 Enforcement Data

Winnipeg Police Service (WPS) provided speed enforcement on most weekdays from October 5 to November 30. WPS did not provide enforcement on Thanksgiving (Oct.10) or Remembrance Day (Nov 11). Pre-agreed hours of enforcement were 7:30am to 9:00a.m and 5:00pm to 8:00pm.

As noted, speed enforcement began with a "heavy" Phase 1, where one patrol team was present throughout the scheduled time on each of the two corridors. Patrol presence lightened after October 21 with Phase 2 "maintenance enforcement", when only one patrol car/team divided its time between the two corridors.

Importantly, all figures below show that once Phase 2 set in, speeders (both enforceable and "light speeders") were increasingly difficult to find, despite consistent levels of enhanced enforcement throughout Phase 2. WPS concluded that drivers were in fact slowing down as a result of the integrated campaign.

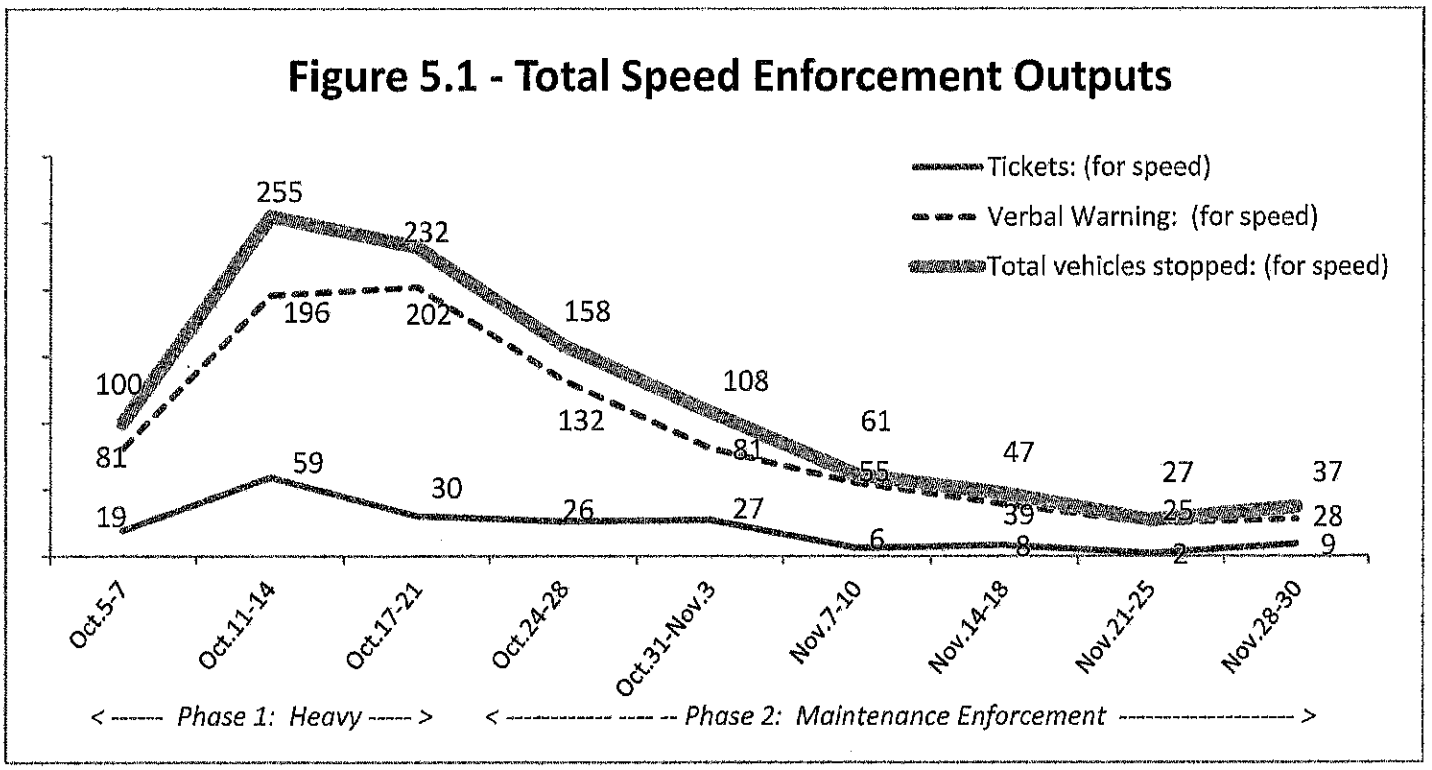


Figure 5.1 - Total Speed Enforcement Outputs
Tickets: (for speed)
Verbal Warning: (for speed)
Total vehicles stopped: (for speed)
255
232
196
202
158
100
108
132
81
61
81
59
55
47
30
27
37
19
26
27
39
25
28
6
8
2
9
Oct.5-7
Oct.11-14
Oct.17-21
Oct.24-28
Oct.31-Nov.3
Nov.7-10
Nov.14-18
Nov.21-25
Nov.28-30
< ------ Phase 1: Heavy ----- >
< ---------- ---- -- Phase 2: Maintenance Enforcement ---------- >

The following two figures compare enforcement activity by corridor.

Figure 5.2 - Speed Enforcement Outputs - Roblin Blvd

Posted Speed Limit: 60 km/h (Shaftesbury to Wexford, Moray to Dale Blvd) and 50 km/h (Wexford to Haney)
Average Weekday Traffic Count at Midpoint: 29,600
Average Annual Deer-Vehicle Crashes: 39

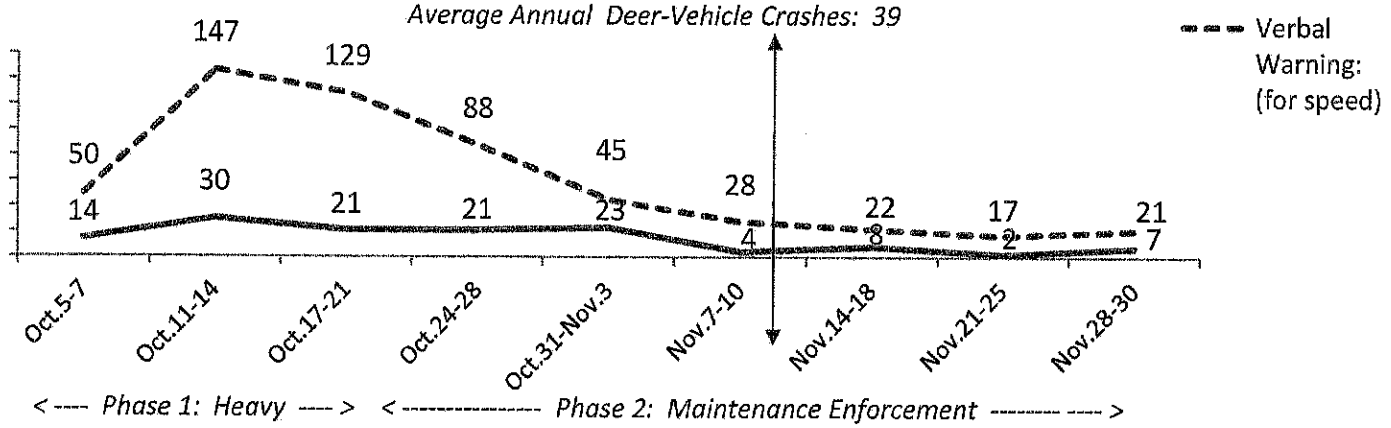
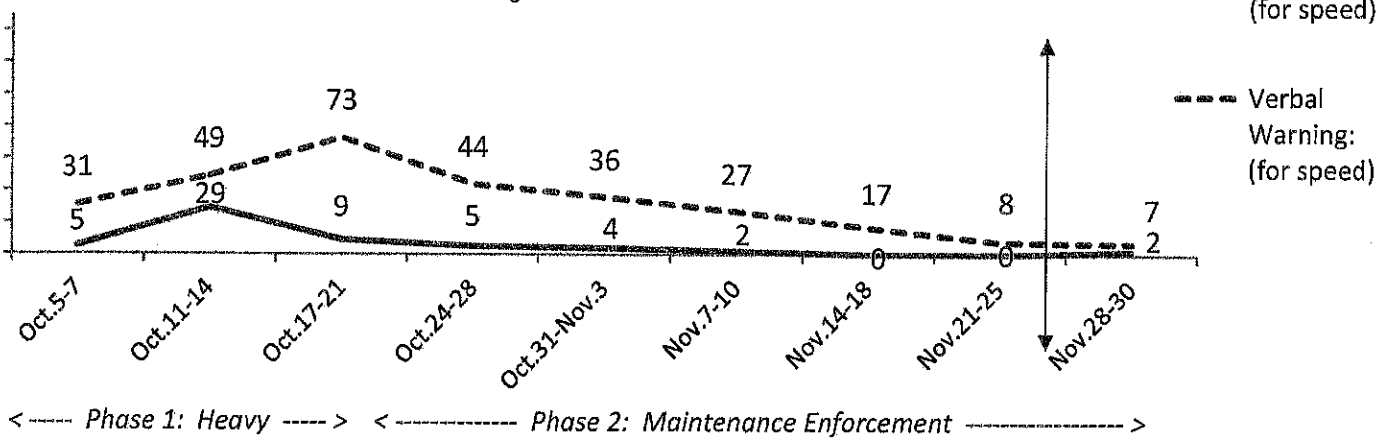


Figure 5.3 - Speed Enforcement Outputs - Wilkes Ave

Posted Speed Limit: 80 km/h (Shaftesbury to Haney) and 90km/h (Haney to Perimeter)
Average Weekday Traffic Count at Midpoint: 7,900
Average Annual Deer-Vehicle Crashes: 53



Key differences in outputs between the two corridors (Figures 5.2 and 5.3):

- ✓ There was a greater volume of vehicles stopped for speeding on Roblin than on Wilkes (e.g. 1.8 times more during week of Oct.17) -- not surprising given its higher average weekday traffic (3.7x higher).

- ✓ The number of enforceable speeders caught (>10 km/h over) was initially similar at Week 2 for Roblin and Wilkes (30 and 29 respectively), but declined much more quickly and thoroughly on Wilkes.
- ✓ On Roblin, the rate of finding and issuing offence notices to enforceable speeders took some time to decline whereas the rate of warnings to "light" speeders declined quickly.
- ✓ The decline in speed enforcement outputs for speeding leveled off on Roblin during Week 6 (Nov.7-10), whereas the decline in "light" speeders on Wilkes continued right into Week 8 (Nov 21-25).

Traffic patrol time was on the whole, productive:

- ✓ A total of 1,025 drivers were stopped for speeding (Table 5.3).
- ✓ Patrol time was seemingly more productive on Roblin Blvd than on Wilkes Ave, due to a higher volume of traffic (3.7 times higher on Roblin). However, speeds are a great deal higher on Wilkes, which more critically impacts on the driver's ability to stop for deer, and so reductions in speed are theoretically more valuable on Wilkes, in reducing collisions.
- ✓ The pilot also allowed WPS to issue a total of 104 notices for non-speed related offences. Examples of non-speed related offence notices issued are provided in Table 5.4.

Table 5.3 – Total Enforcement Activity over the Pilot Period

Type of HTA Infraction	Activity Counts
Total vehicles stopped: (speed and other)	1,117
Total vehicles stopped for speeding	1,025
Total drivers given a verbal warning for speeding *(5 to 10 km/h over)*	839
Total drivers issued a speeding ticket *(over 10 km/h over speed limit)*	186
Total brochures issued ("Slow down, deer!")	915
Total Non-Speeding offence tickets issued	104

Table 5.4 – Non-Speed Related Tickets Issued - Oct.31 – Nov.30

HTA Infractions Recorded between October 31 and November 30	Notices Issued
173(1) Invalid Driver's license	1
4.2 (1)(a)(ii) Fail to display front plate	6
215.1(2) Use Cellular phone	2
204(1) Fail to have required equipment	14
186(3) Driver fail to wear seatbelt	1
226(1) Drive w/o MV liability insurance	1
173(2) Fail to comply with license restrictions	2
85 Disobey Traffic Control Device	1

5.4 Vehicle Speeds

At the two locations where vehicle speed was captured using a discreet radar technology, a greater proportion of speeders was identified at Roblin at Shaftesbury Blvd, westbound (see below, Figure 5.4). The pre-pilot average speed at this location *(weekdays, all hours)* was 66 km/h in a 60 km/h zone, with 21% travelling more than 10 km over the posted limit, and another 31% travelling between 5 and 10 km/h over the posted limit.

At Roblin and Community Row eastbound (see Figure 5.5), the pre-pilot average speed *(weekdays, all hours)* was below the speed limit, at 59 km/h, with only 7% travelling over 10 km/h, and another 15% travelling 5-10 km/h over.

Not surprisingly, it was only at Roblin and Shaftesbury that the proportion of speeders immediately and meaningfully declined once active enforcement activities commenced:

- ✓ At Roblin and Shaftesbury, the reduction in speed was fairly steep during the first two weeks of the pilot (in the >10 km/h over category, from 21% to 10%). Speeds were then more-or-less maintained into Phase 2.
- ✓ At Roblin and Community Row, where speeding was much lower during the pre-study period, speeding did not reduce until well into the campaign (week 7) with average speed being reduced by only 1 km/h at that point. This suggested very few lowered their speed below the speed limit. Having taken that long for speeds to change, it is also questionable whether any element of the program would have been responsible for that change.

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Figure 5.4 - Percent of Vehicles Over Speed Limit: Roblin-Shaftesbury

(weekdays, westbound, all hours)

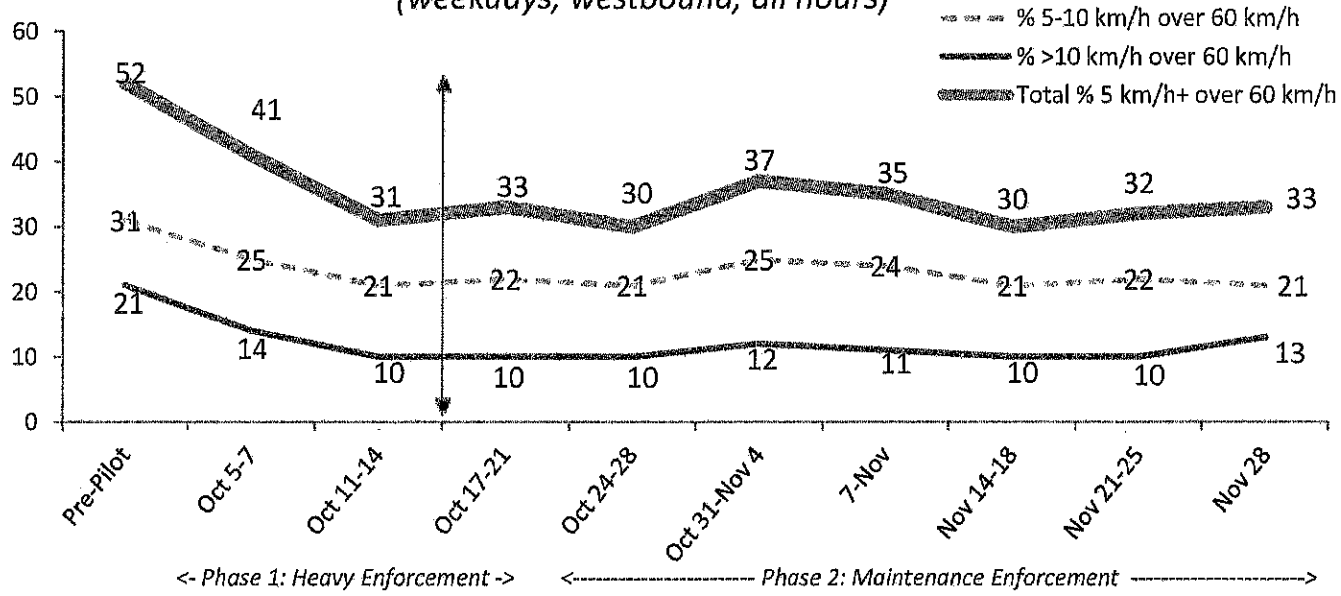
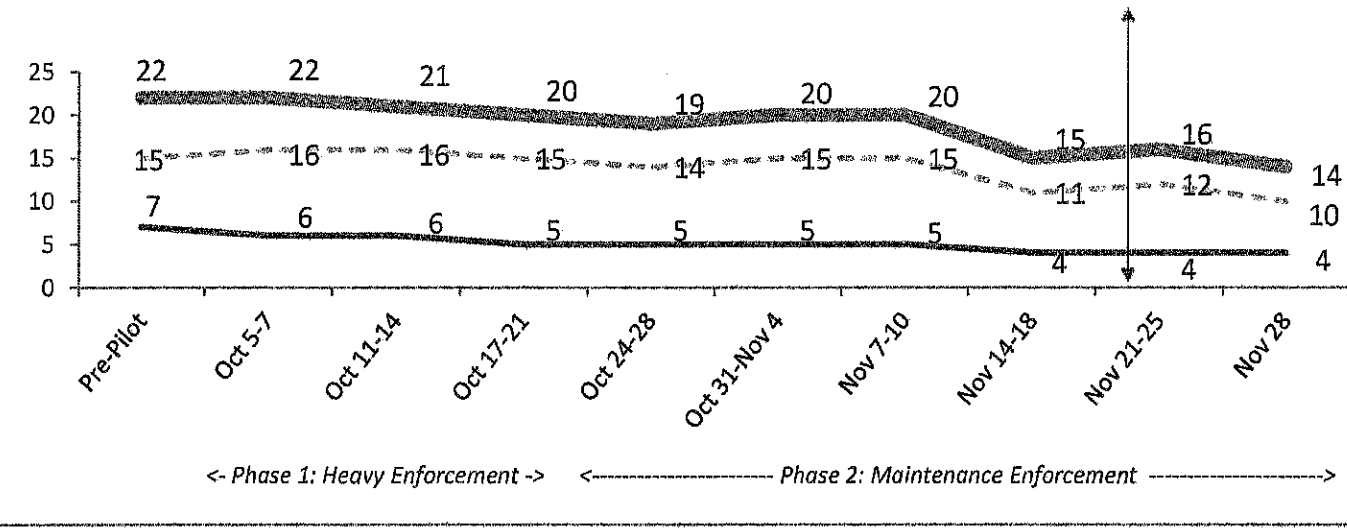


Figure 5.5 - Percent of Vehicles Over Speed Limit: Roblin-Community Row

(weekdays, eastbound, all hours)



Pilot Enforcement Hours: Speed reductions were clearly more pronounced during the hours of enhanced enforcement at Roblin and Shaftesbury. Speed reductions at the Roblin and Community Row location were less noticeable.

- ✓ At Roblin and Shaftesbury, the reduction in speed was steep during the first two weeks of the pilot (e.g. in the >10 km/h over category, from 24% to 8%). Speeds were then maintained more or less, over Phase 2. (See Figure 5.5)
- ✓ At Roblin and Community Row, where speeding was much less frequent during the pre-study period, speed reductions were less dramatic, and more gradual. (See Figure 5.6)

Figure 5.6 - Percent of Vehicles Over Speed Limit:
Roblin-Shaftesbury Blvd *(weekdays, westbound, 7:30-9am + 5-8pm)*

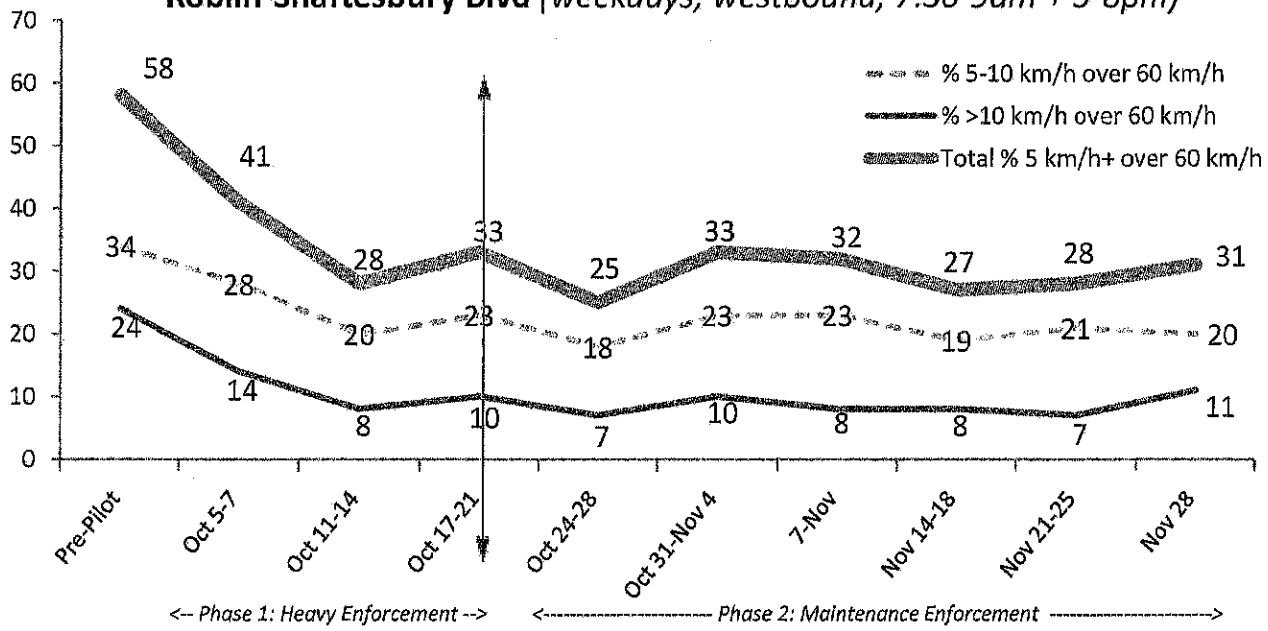
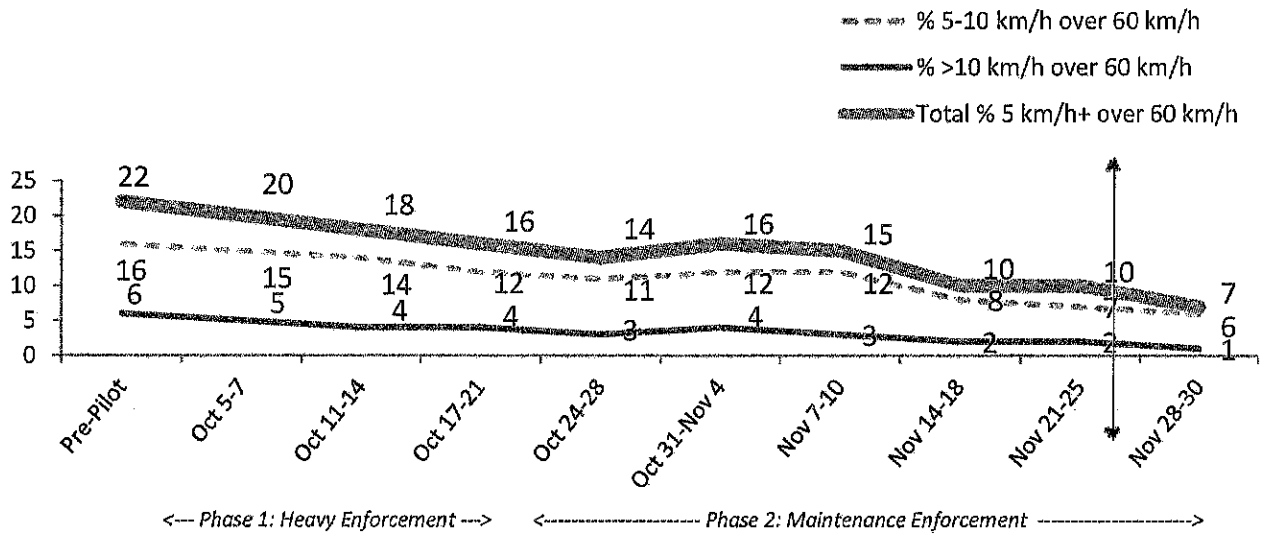


Figure 5.7 - Percent of Vehicles Over Speed Limit:
Roblin-Community Row *(weekdays, eastbound, 7:30-9am + 5-8pm))*



Weekends: The impact of the campaign on vehicle speed was far less noticeable on weekends when enforcement was not present:

- At Roblin and Shaftesbury Blvd., the percentage of drivers speeding at more than 10 km over the posted limit fell from 19% to 11% by Week 3 (Oct 22/23). (See Figure 5.8)

✓ At Roblin and Community Row, declines in speeding more than 10km over the posted limit were minimal, finally settling after Week 7 (See Figure 5.9).

Figure 5.8 - Percent of Vehicles Over Speed Limit: Roblin-Shaftesbury

(weekends, westbound, all hours)

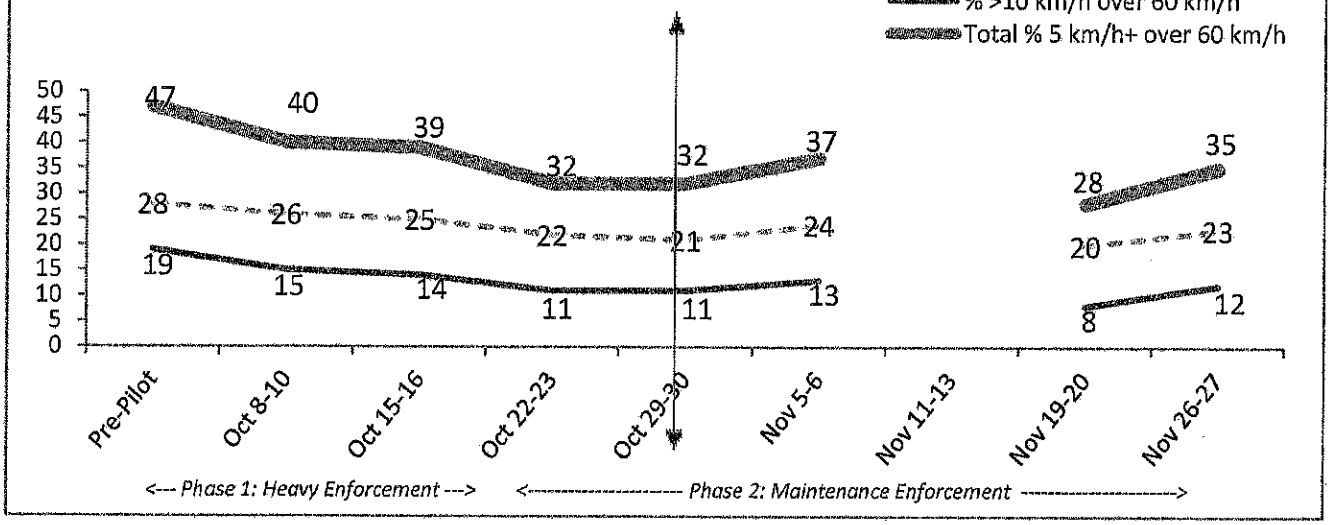
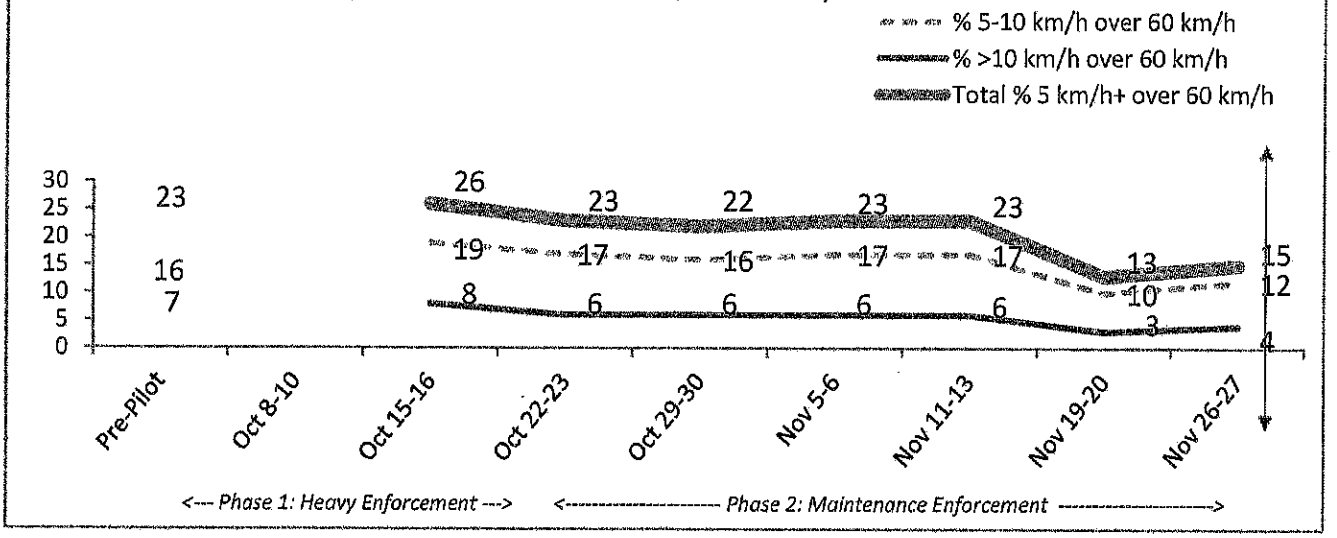


Figure 5.9 - Percent of Vehicles Over Speed Limit: Roblin-Community Row

(weekends, eastbound, all hours)



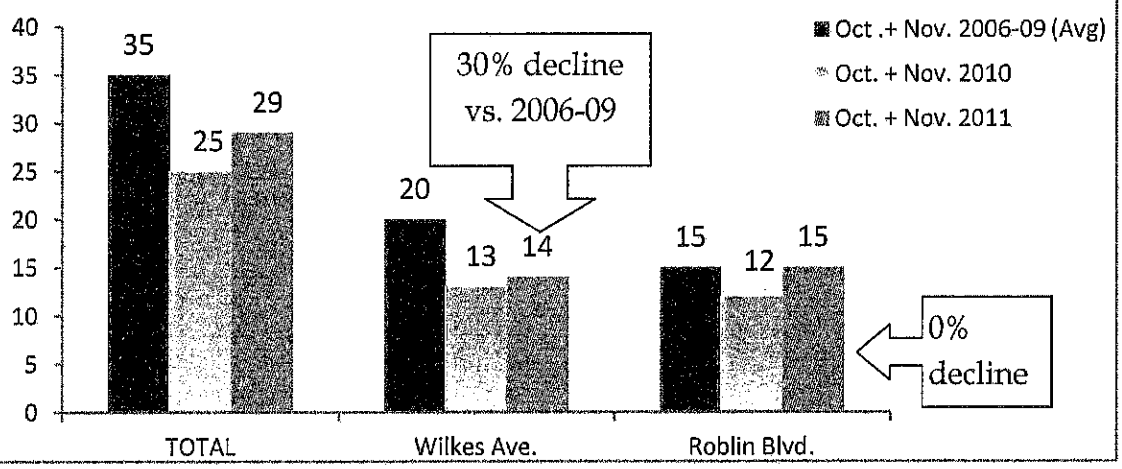
5.5 Collision Results

A count of deer-vehicle collisions along the pilot corridors was tabulated to look for any sign of collision reduction when comparing collisions during October and November 2011 (the study period) to the same two months in prior years. 2010 is presented separately, due to exceptional weather which may have been an external influence on the deer population potentially skewing the numbers of collisions.

The results demonstrate the combined number of collisions with deer along the study corridors was only slightly lower in 2011 compared to the average for 2006-09 (29 vs. 35), and slightly higher than the 2010 number (29 vs. 25). This equated to a 17.1% reduction in total collision claims in 2011 compared to the 2006-2009 average and a 16% increase compared to 2010.

By corridor, comparing 2011 collisions to the 2006-09 averages, collisions were lower along Wilkes (30%) with no reductions noted on Roblin.

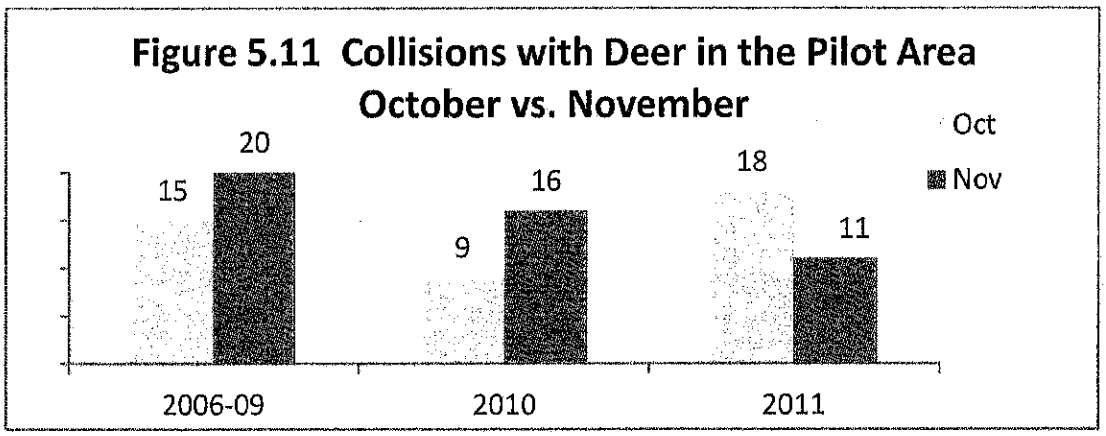
Figure 5.10 Reported Deer-Vehicle Collisions



A profile of collisions along the pilot corridors was assembled to search for any change in pattern from previous years. (See Table 5.4)

- ✓ By Weekday vs. Weekend: As with previous years, the proportion of collisions in 2011 occurring during the week about similar to 2006-09. Presence of enforcement during weekdays did not change the proportion.
- ✓ By Time of Day: In 2011 the distribution of collisions by time of day was not much different from 2006-09. Presence of enforcement during mid-morning and early evening did little to change the proportion.

- ✓ By Month: Collisions are normally higher in November than in October. In 2011 however, there were fewer collisions in November than in October. This was the case for both Roblin Blvd. and Wilkes Ave. This may be due to external influences such as normal fluctuations in deer population and/or deer movement, or exceptional weather in November 2011. Conversely, it is possible that enhanced driver awareness over the course of the pilot, may have helped to stave off the normally higher number of collisions in November. This hypothesis however, would not explain the increase in total collisions during October (first month of pilot) compared to prior years. (See Figure 5.11).



- ✓ By Injury: In previous years, only 2 collisions resulted in an injury in October or November. In 2011, results were similar with one of the reported 29 collisions resulting in an injury.
- ✓ By Cost of Collision (vehicle and injury claims): In 2010, the average cost of collision was $4,640. In 2011 the cost of collision was marginally less on average at slightly less at $3,712. Once "development factors" are applied to the one injury, the average will likely be closer to $3,900.
  (Note: Previous years are not as comparable on costs, due to changes in repair costs)
- ✓ By Driver Address: In 2010, about half (11 out of 25) of the drivers involved in an October or November collision along Roblin Blvd or Wilkes Ave. resided in nearby FSAs. Likewise, in 2011, about half (18 out of 29) of the drivers involved in October or November collisions resided in the FSAs targeted for the brochure mail-out.

Table 5.5 – Reported Collisions with Deer by Month, Day and Time

Pilot Corridor Collisions	Oct. + Nov. Average 2006-09	Oct. + Nov. 2010	Oct. + Nov. 2011
October	15	9	18
November	20	16	11
October – Roblin Blvd.	6	6	11
October – Wilkes Ave.	9	3	7
November – Roblin Blvd.	9	6	4
November – Wilkes Ave.	11	10	7
Weekday (Monday to Friday)	71%	84%	76%
Weekends and 2 Statutory Holidays	29%	16%	24%
Midnight – 6:15am	3	-	-
6:15 - 7:25am	4	5	7
7:30am - 8:45am *(enforcement)*	4 (11%)	2 (8%)	6 (20%)
9:00am – 10:00am	1	-	-
11:00am - 4:50pm	4	3	2
5:00pm – 7:45pm *(enforcement)*	12 (34%)	4 (16%)	8 (28%)
8:00pm-11:30pm	7 (20%)	11 (44%)	6 (20%)
Collisions with injury	2 *(both roads)*	2 *(Roblin)*	1 *(Roblin)*
Collisions with no injury	33	23	28
Driver lives in the mail-out (FSA) area	n/a	11	18
Driver lives outside of mail-out range	n/a	14	11
Average cost of collision (excl. $0 incurred)	$3,185	$4,640	$3,712*
*TOTAL REPORTED COLLISIONS**	35	25	29
TOTAL COST OF COLLISIONS	$108,299	$111,363	$100,231

** Note: Total collisions include some with $0 incurred claims. Development factors have not yet been applied to 2011 collisions therefore average cost could be higher than identified.*

5.6 Return on Investment

This project was undertaken to test what outcomes (awareness, changes in driver behaviour, and reduction in deer collisions) may result from the interventions piloted along two different types of roads, given full resources and use of tested best practices from other jurisdictions.

The study demonstrated the following positive outcomes:

- ✓ Increased awareness of the message to "Slow Down" to avoid or decrease the severity of a deer collision within the target area.
- ✓ Reduced speeds most prominent while visible enforcement was present.

From a financial cost/benefit perspective however, the pilot study failed to yield a positive outcome.

- ✓ The total number of deer-vehicle collision claims reported across both study sites was reduced in 2011 by approximately 17% over the average number of claims reported during the same periods from 2006-2009 (reduction in 6 claims overall).
- ✓ Total associated claims costs in 2011 were reduced by approximately 8% from $108,299 in 2006-09 to $100,231 in 2011.
- ✓ Total estimated claims costs savings of $8,000 represented less than 10% of the cost of the pilot study ($88,131).

Conclusions

The 2011 Wildlife Collision Reduction Study successfully met the following objectives:

- ✓ Create awareness of risk of collision with deer within the targeted study areas;
- ✓ Educate drivers on how to reduce their risk (primarily be being alert and slowing down);

These successes can be attributed to media coverage of the study pilot, targeted distribution of informational material to households in the target areas and by police during speed enforcement activities, and the presence of highly visible variable message boards positioned strategically along the two corridors from Shaftsbury Blvd to the Perimeter highway.

The objective to reduce free mean speeds along the pilot corridors was partially met. The evaluation clearly demonstrated that the incidence of speeding was reduced when there was active and visible police enforcement. This was less apparent however, when police were not actively conducting speed enforcement activities such as on weekends or during periods of the day when police patrols were not active.

The objective to reduce the frequency and/or severity of deer-vehicle collisions was met only marginally with an overall reduction 6 collision claims reported (17% decrease) compared to the same period in previous years, and an estimated reduction of approximately 8% in claims costs. Based on the variability of collisions from year-to-year it is questionable whether this reduction in claims and claims costs can be attributed specifically to the intervention strategies deployed.

As a return on investment, less than 10% of the cost of the wildlife study was recovered through claims costs savings. Claims costs in 2011 were estimated at $100,231 which represented a savings of approximately $8,000 compared to average claims costs from 2006-2009, opposite the total cost of the Wildlife Collision Reduction Study at $88,131.

These results suggest no net savings to the Corporation and its ratepayers as a result of the Wildlife Collision Reduction Study undertaken in 2011, despite the fact that the study used three complementary intervention strategies considered

to be both effective and cost-reasonable based on experiences in other jurisdictions.

Note:

The wildlife collision reduction study and subsequent evaluation could not control for external influences that may have affected study outcomes such as potential growth of the deer population, greater settling of herds near residential areas, and weather conditions which may influence deer mobility and subsequent deer-vehicle interactions.

MANITOBA PUBLIC INSURANCE

Years ended February 28/29	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Number of Claims (#) - Note 1										
Amputation	6									
Burns	12									
Dental	33									
Internal Injury	15									
Psychological	242									
Sensory Loss	25									
Fatal	130	172	126	135	131	159	161	144	157	139
Brain damage - Note 2	246	276	146	66	44	86	74	80	69	97
Quadriplegic	2	6	2	6	3	5	1	3	4	3
Paraplegic	2	1	1	3	6	6	14	9	5	8
Broken bones	771	849	705	754	766	785	837	728	703	811
Sprains and strains - Note 3	4,821	3,980	3,198	0	0	0	0	0	0	0
Whiplash	9,273	8,646	10,735	13,885	14,669	15,173	14,508	12,725	12,490	12,249
Bruising/Lacerations	975	1,072	1,366	801	651	707	610	539	692	871
Other	557	1,593	907	1,021	673	790	1,238	1,592	1,556	1,515
Total	17,110	16,595	17,186	16,671	16,943	17,711	17,443	15,820	15,676	15,693
Severity ($) - Note 1										
Amputation	142,865									
Burns	6,249									
Dental	5,151									
Internal Injury	0									
Psychological	1,712									
Sensory Loss	4,871									
Fatal	71,685	54,044	72,001	73,139	71,659	63,263	82,169	68,098	56,553	52,960
Brain damage - Note 2	74,522	27,417	98,037	248,783	236,840	196,148	374,972	270,070	245,515	352,744
Quadriplegic	427,550	496,714	210,105	528,075	764,724	1,450,103	501,744	235,451	1,709,728	1,775,802
Paraplegic	1,855,853	3,864,061	1,232,386	577,289	455,210	548,747	779,824	752,863	1,031,121	939,352
Broken bones	25,373	27,303	30,926	26,669	30,103	30,864	34,995	40,419	24,008	31,140
Sprains and strains - Note 3	3,143	4,477	4,412	0	0	0	0	0	0	0
Whiplash	3,452	4,724	3,551	2,010	1,977	1,828	1,796	1,953	1,682	1,940
Bruising/Lacerations	3,089	4,295	3,455	5,510	6,078	5,826	4,591	4,331	3,553	4,070
Other	2,152	2,729	6,855	5,412	7,176	8,528	6,417	5,097	4,882	5,300
Total	6,029	6,900	6,401	5,347	5,057	5,663	6,793	6,550	5,470	7,329

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CAC/MSOS (MPI) 1-25 Reference: SM.8.8, Planned Expert Independent review of Driver Ed and training

(a) Please indicate how Northport Associates was chosen for the formative evaluation project, e.g., by competitive tender?

(b) Please indicate whether or not Northport Associates has provided any final reports to MPI in the past. If so, please indicate any recommendations that Northport may have made to MPI, and provide a copy of the material(s).

(c) Please provide the current status of the formative evaluation project along with an outline of "the short and longer term work plans against which evaluation work is now being executed.

(d) Please indicate where the costs to MPI of the formative evaluation project are included in this application.

(e) Regarding the "Summative Evaluation," please confirm that the expected total cost to MPI of participating in this exercise is approximately $129.5K ($342.0K - $212.5K). If unable to so confirm, please provide the total estimated cost to MPI and indicate whether any capital expenditures are involved.

(f) Regarding the "Summative Evaluation," please elaborate on the statement that "... MPI project resources have been secured, and the evaluation study design and evaluation tools for use in Manitoba are under development."

(g) On page 7 the statement is made that "both of these organizations [TIRF and Northport Associates] have had previous successful research experience involving Manitoba driver programs." Please provide support or documentation for this statement.

RESPONSE:

(a) Northport Associates was directly appointed because of their previous involvement in evaluating MPI's Driver Education Program.

(b) Northport has provided the following final reports to MPI in the past:

1. A Longitudinal Analysis of Manitoba Public Insurance Driver Education Program (July 17, 2001)
2. Literature Review: Driver Education Evaluations (November 3, 2005)
3. Policy Discussion Paper 2005 (December 19, 2005)
4. Manitoba Public Insurance Driver Education Program Evaluation Framework (June 5, 2007)

Recommendations and conclusions are contained in the reports where applicable.

(c) The attached work plans are being implemented as indicated.

(d) These costs are included in the Safety/Loss Prevention Programs line on TI.7A and TI.7B.

(e) The total consulting cost to MPI regarding the "Summative Evaluation" is $130,000 US.

(f) The MPI staff required to work on the Summative Evaluation Project have been determined and assigned. The financial resources and budget have been determined and allocated to the project. MPI has begun working on the study design and survey instrument with Northport Associates and TIRF.

(g) TIRF is currently involved in a comprehensive evaluation of Manitoba's Graduated Driver License Program.

Please refer to our response to (b) for information on Northport Associates' previous research experience involving Manitoba driver programs.

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CAC/MSOS (MPI) 1-25 (b) (i)

A LONGITUDINAL ANALYSIS OF MANITOBA PUBLIC INSURANCE DRIVER EDUCATION PROGRAM

FINAL REPORT

July 17, 2001

Submitted to:
Corporate Marketing and Strategic Relations
Public Affairs Division
Manitoba Public Insurance

Submitted by:
L. P. Lonero, Northport Associates
K. M. Clinton, Northport Associates
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M. L. Chipman, University of Toronto
A. M. Smiley, Human Factors North

EXECUTIVE SUMMARY

Young novice drivers everywhere contribute to serious crash losses well beyond their representation in the driving population and the distance that they drive. Economic and demographic trends threaten to produce increasing casualties, because the numbers of young drivers are again increasing after many years of decline. On average, new drivers seem to need between five and seven years to reach mature risk levels, and driver education hopes to speed up this process.

The urgent need for renewal and better support of driver education is widely recognized. Driver education may only reach its full potential when it is appropriately targeted to students' needs and to their still-developing underlying capabilities. There has been concern in the field that not all the skills needed for safe driving can necessarily be learned at the very beginning of a driver's career, due to consideration of the student's readiness to learn. This concern has led to a trend of graduated approaches that stretch out the learning and licensing process for new drivers.

The critical importance of evaluation in driver education is recognized internationally, but relatively little work has been done in the last two decades. Past evaluations were typically of the summative type, which tried to prove that a program produced graduates who had measurably better subsequent driving records. Most such evaluations failed to look at what the students had or had not learned, so that directions for improvement of the programs were unclear. This is unfortunate, since a successful course for the future requires a good measure of the current position and knowing what a program achieves and fails to achieve in some detail. Generating this knowledge requires current survey and driver record data.

Manitoba's driver education situation is unusual compared to most other North American jurisdictions. It has a strong, centrally organized and well-managed High School Driver Education Program (DEP). Manitoba's DEP program has directions and goals for development, and it has development resources and staff available to it. The program was revised in the mid 1990s. This program base can be a foundation for future growth, allowing the program to take advantage of the best ideas and methods as they develop. The present project is intended to assess the recent impacts of the program on students and to serve as part of the springboard for future development.

Scope and Methodology

The scope and objectives of the present project were to provide sound measures and recommendations with respect to: 1) opportunities for improvement in content, emphasis and methods; 2) safety performance of DEP graduates relative to those without it; 3) differences between the groups in perceptions, attitudes, knowledge, awareness and

reported actions; 4) the perceptions and attitudes with respect to DEP; and 5) parents' perception of value added to novice drivers' safety by DEP.

The newly licensed drivers for study were a DEP group (4000), and a comparison group of drivers from the general population of young drivers drawn from insurance records (NonDEP group, also 4000). Two thousand parents of DEP graduates were also surveyed, as were 2000 members of the general public, drawn at random from adults over 25 years of age. Mail surveys were used because they are more cost effective than telephone or in-person interviews and because of the difficulty of locating phone numbers for young driver subjects. Mail survey procedures were conducted to maximize participation and maintain accepted professional standards. Usable questionnaire completions ranged from 26% for the general public to 39% for DEP graduates.

Survey Results

The principal personal differences found in the survey data were that the DEP group was younger, licensed younger, drove less, and was more highly favourable to DEP. The DEPs reported a higher rate of *crashes* (0.390 per person-year) than the NonDEPs (0.264 per person-year). DEPs also reported a slightly higher rate of convictions. However, when age was accounted for statistically, no significant difference in self-reported crash rates between the DEP and NonDEP groups was apparent, regardless of whether the NonDEPs had any formal driver training. Interestingly, nearly 20% of the young drivers indicated that they had at least one unreported accident.

In attitudes, DEPs appeared slightly more favourable on health conscious items and accident avoidance confidence. The NonDEPs appeared more accepting of authority, risk averse, resistant to peer pressure, and confident in their grasp of the rules. In self-reported driving errors, DEPs showed better avoidance of a number of errors, mainly of the nature of relatively deliberate violations. The DEPs' greater seat belt use showed the greatest difference of any of the self-report items.

The DEP program enjoys remarkably high levels of approval from both parents of graduates and adult members of the general public. Nearly all of the respondents agreed (and most strongly agreed) that the program is valuable, produces better drivers, and that they would recommend it. Among the NonDEPs, the most frequent reasons for not choosing to take the DEP were cost in time and money, lack of availability, competition from private training, and inconvenience. When DEP graduates were asked what areas needed increased emphasis, the leading responses were advanced skills, including winter driving, emergency car handling, and driving in heavy traffic.

Driver Record Analysis Results

As well as self-reported survey information, the driver or population records were provided by Manitoba Public Insurance. Accident rates based on record data were much lower than the self-reported rates. Statistical modeling showed that the effects of age, months of experience and gender were all statistically significant factors in crash rate. For example, males had 1.45 times as many accidents per year as females with the same values of all the other factors. Drivers in Brandon and Winnipeg were less likely overall to experience accidents than others. When all of these other variables are controlled for, there was no statistically significant difference between DEPs and NonDEPs in terms of overall accident incidence.

In convictions, there were statistically significant differences between the DEPs and NonDEPs, but the findings were contradictory. When the whole populations were modeled, the DEPs had more convictions in a given year, but when survey samples were modeled, the NonDEPs had more. The DEPs showed a moderate (15%) but statistically significant excess of insurance claims over NonDEPs, as well as higher claims dollar value (14%). There were no significant differences in injury versus property damage claims between the training groups.

Summary and Recommendations

Manitoba's DEP shows promising effects on the attitudes and driving of its graduates, but there does not appear to be a difference in accident risk in favour of the DEP graduates. Further measurement of intermediate outcomes (e.g., skills, knowledge, and attitudes) and final outcomes (crash rates and costs) are warranted in support of concerted and continuous program improvement. Students, parents, and the general public are overwhelmingly favourable to the program. While this suggests that it operates well most of the time, the current study does not address details of program content, operations, or any specific weaknesses and inconsistencies that might exist within the overall program. Product and process evaluation should also be undertaken to ensure that the program is being delivered as effectively, efficiently, and consistently as possible.

Recommended program development actions are related to both the structure of driver education and the overall context of young driver safety, as the two apparently must be linked if a measurable impact on crashes is to be created. Strengths, weaknesses, and specific opportunities for improvement are addressed throughout the report, but the following recommended actions are considered necessary and effective for achieving more specific and incremental program improvements.

Manitoba Public Insurance

An Agreement for Services dated the 1st day of January, 2013.

BETWEEN:

THE MANITOBA PUBLIC INSURANCE CORPORATION
(called "**Manitoba Public Insurance**")

- and -

AMERICAN DRIVER AND TRAFFIC SAFETY EDUCATION ASSOCIATION
(called the "**Vendor**")

WHEREAS:

(a) Manitoba Public Insurance is seeking to create an improved High School Driver Education ("**HSDE**") program and has selected the Vendor to assist in this project as more particularly described in Article 2.00 (the "**Services**"); and,

(b) Manitoba Public Insurance wishes to engage the Vendor and the Vendor wishes to be engaged by Manitoba Public Insurance to provide the Services in accordance with the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the foregoing recitals, terms, conditions and covenants contained herein, it is hereby agreed as follows:

1.00 TERM OF AGREEMENT

1.01 This Agreement is for a period of five (5) months and comes into effect as of January 1, 2013, and shall continue until May 31, 2013 (the "**Term**"), unless otherwise terminated, suspended or extended in accordance with the terms and conditions of this Agreement.

2.00 SERVICES TO BE PROVIDED

2.01 Manitoba Public Insurance agrees to retain the Vendor to perform the Services, which are further detailed in this Article 2.00. The Vendor agrees to perform such Services during the Term, on the terms and conditions set out in this Agreement and as directed by Manitoba Public Insurance, to its reasonable satisfaction.

2.02 The Vendor agrees to be bound solely by this Agreement. For greater certainty, "**Agreement**" means this agreement, any schedules attached hereto, and any statement of work and/or other document

incorporating or made pursuant to this agreement. If the Vendor begins the Services before the start of this Agreement's Term, all Services provided by the Vendor before the start of this Agreement's Term will be considered to have been provided under all of the terms and conditions of this Agreement.

2.03 Background

Young drivers in Manitoba, as in other jurisdictions, are over-represented in collisions, fatalities and serious injuries when compared to other aged drivers. The HSDE program provides a unique opportunity to shape the long-term driving behaviors of approximately twelve thousand (12,000) new teen drivers annually and as Manitoba's compulsory automobile insurance provider, Manitoba Public Insurance is uniquely positioned to establish and achieve a measurable return on its investment in creating an improved HSDE program for new teen drivers. Enhancements to the HSDE program are expected to strengthen driver knowledge, improve driving skills, and create greater appreciation for the risks and consequences of illegal or unsafe driving behaviors. Doing so is expected to have a positive impact on collisions and claims costs involving young and new drivers.

2.04 Vendor Obligations

The Vendor shall:

(a) Perform a comprehensive global jurisdictional scan of driver education programs and the strategies contained within the programs. This will be achieved through a literature review and through contacting various driver education organizations throughout the world;

(b) The scan will include, but is not limited to, a review of the following new and emerging approaches:

(1) on-line and computer-based instruction;
(2) integration of on-line, in-class and practical in-vehicle instruction and supervised driving practice;
(3) cognitive and perception-based training, including assessment of existing web-based programs such as I-Drive, Teen-Smart, Adept Driver;
(4) driving simulation tools;
(5) vehicle telematics;
(6) advanced in-vehicle hazard perception and avoidance training, including advanced driving skills for adverse weather and road conditions in Manitoba;
(7) instructor training, support and ongoing professional development;
(8) strong parent/guardian participation and support; and,

NORTHI ASSOCIATES

MANITOBA PUBLIC INSURANCE

HIGH SCHOOL DRIVER EDUCATION (HSDE) PROGRAM

FORMATIVE EVALUATION PROJECT

FINAL REPORT

YEARS 1-5

MARCH, 2008- AUGUST, 2012

REVISION
January 18, 2013

MPI HIGH SCHOOL DRIVER EDUCATION FORMATIVE EVALUATION PROJECT

FINAL REPORT – YEARS 1-5

MARCH, 2008 – AUGUST, 2012

The purpose of this Final Report is to provide a summary of the High School Driver Education (HSDE) Formative Evaluation Project over the five years of its contracted work. The report summarizes the activities and outcomes over the five years in several key areas and outlines the recommendations that were based on these findings. It also describes the HSDE Program, identifying strengths and weaknesses, and outlines the HSDE New Model and related Development Plan, which were produced to address program weaknesses and create a leading edge Driver Education Program in Manitoba.

1. INTRODUCTION

A. BACKGROUND

The purpose of evaluation is to identify ways to improve programs. Issues that may seem to be problems or weaknesses can also be viewed as opportunities for improvement. In driver education, as in other realms, building upon strengths and addressing weaknesses is the path to more effective and successful programs.

There are two main types of program evaluation; *formative evaluation*, so-called because its function is to help *form* a program into a more effective operation, and *summative* evaluation, which helps *sum up* program outcomes and impacts. Both processes are important. Many evaluation experts insist that ongoing formative evaluation of a program is essential to understanding the findings of that program's summative or outcome evaluation. If we don't know how effectively the program has been implemented and how well it is performing, it is impossible to know how to improve the program to achieve better outcomes.

The goal is not to simply label the program as "good" or "bad" but to look at specific aspects of the program, such as in-class and on-road instruction, curriculum materials, and student and parent satisfaction. This provides a more objective understanding of the program and helps identify ways to improve it. After the first evaluation is completed and improvements are made, ongoing evaluation determines what has been improved and what more can be done.

b. User Needs and Perceptions and Monitoring – It was important to understand the needs and perceptions of program users (driver education students and parents) on an ongoing basis and monitor related research. Reports on research, literature and industry monitoring were prepared.

c. Program Logic – A logic model is a graphic representation, such as a flowchart, table, or block diagram, of the relationships between program goals, objectives, assumptions, activities, target and stakeholder groups, and outcomes. At the outset of the Formative Evaluation Project, a program Logic Model was developed in order to assess program linkages, monitor progress, and document program change as it occurred. It was reviewed and updated annually.

2. *Program Context*:

a. High School Support – It was important to understand opportunities and limitations regarding the operation and promotion of HSDE Program activities at the school level. Willingness to cooperate, geographical setting, and social and economic conditions all play a role. Key issues included equipment use, scheduling, and feasibility of additional partnership opportunities. Schools were also important as they contribute to community support for the program.

b. Stakeholder Expectations and Perceptions – Proposed program improvements or changes may be advantageous for and supported by stakeholders, while others may not. Understanding and anticipating stakeholder views and concerns facilitated change and/or minimized challenges. Stakeholders included users, those involved in implementing the program, and those served by and/or affected by the program.

c. Community Support – Community support and media relations enabled MPI to achieve public backing for the HSDE program, thereby promoting sustainability. These included: civic clubs, government agencies, community leaders, and news media professionals. Public polling provided an indication of program support.

d. Regulatory Environment – Provincial regulations for the most part concern licensing and not the HSDE Program itself. Of those relating to the program itself, MPI must ensure that its driving instructors comply with HTA & DVA regulations, and compliance may apply to the Formative Evaluation Project.

3. *Business Processes*:

a. Instructor Support – It is important to support instructors to a level where they are as effective as possible, as well as satisfied with their jobs. This is critical to maintaining their participation (in short supply in certain rural

areas), their respect, and their willingness to act as positive ambassadors for the program in the community. The HSDE Evaluation Framework identified this area as needing particular attention including: updated teaching tools; support from schools; administrative support; professional support; and systematic upgrading of instructors' knowledge and skills.

b. Customer Service – The principal customers of the program are the students and their parents/guardians. Unhappy customers can threaten the existence of an MPI managed HSDE program. Customer service for Driver Education (DE) included:

   - MPI communication and actions in response to requests and complaints;
   - MPI's provision of information on important aspects of DE; and
   - Certain performance aspects of the instructors, as experienced by the customer, or observed by a Liaison Officer.

   At this time, the only individuals rated on customer service on a regular basis are instructors.

c. Program Development – Opportunities for program development must be encouraged and implemented, otherwise the relevancy of the HSDE Program risks being criticized by stakeholders. Turning evaluation findings into program improvements requires program development expertise and significant resources.

d. Operations Management – Operations management impacts program sustainability. Important elements included: availability/recruitment of Instructors; instructor retention and compensation; staff quality and quantity; and new partners (brokers and customer service centre). Recruiting qualified instructor applicants has been a major challenge for the HSDE Program.

e. Supporting Policies and Procedures – Similarly, effective tools (i.e. policies and procedures) enhance overall program productivity. Supporting policies are important to an evolving and improving program. The success of the HSDE Program is easily linked to the extent of and careful development of its policies and other policy areas, such as graduated driver licensing.

f. Marketing – Public awareness of MPI's primary role in subsidizing and delivering HSDE is critical to maintaining support for the program. Marketing also exists to support and drive interest in specific elements of HSDE such as the Driver Ed Challenge, or to encourage parents in coaching novice drivers or as a support for updating instructors on newsworthy items. Marketing also includes pricing. In the case of the HSDE Program, the overall pricing strategy is designed to allow access to

a maximum number of students, while maintaining some level of commitment to discourage dropouts.

4. *Program Standards*:

   a. Benchmarking and Certification – Overall, the HSDE Program is widely viewed as a superior program to most existing public programs and represents a benchmark in its own right. However, comparing program elements to other jurisdictional standards assisted in identifying high-priority areas for HSDE program improvement and expansion. Particular attention has been paid to the recent standards developed by the Canadian Standards Association for Province of Ontario and by the National Highway Traffic Safety Administration for (NHTSA) U.S. states.

5. *Instructional Products*:

   a. Curriculum Materials – Instructional products are crucial. MPI implemented a new curriculum and textbook in 2006 and has continually sought to update these and other instructional resources. Resources included: videos, slides; impaired driving goggles, magnetic mini-cars; group exercises and other interactive activities (games, CDs) suitable; handouts and worksheets; and instructor allowances to purchase items they like to work with. Also included was the Co-Pilots Manual for parents.

   b. Tests and measurements – Tests of student achievement and skill mastery serve as basic infrastructure for the educational process, and while they were not a priority for the Formative Evaluation Project, they are an important area for future technology development.

6. *Instructional Processes*:

   a. In-Class Curriculum Delivery – Ensuring uniform and quality delivery of the curriculum as intended by the curriculum developers and program managers has been both critical operational and pedagogical issues. Several initiatives were identified as requiring attention in this area.

   b. In-Car Curriculum Delivery – Similarly, in-car curriculum delivery was an important program evaluation area. For example, instructors simply driving a straight highway for their rural in-car lessons, or shortening driving lessons with breaks would be important items to be aware of and address.

   c. Instructor Preparation – Instructor preparation is critical, and issues included content and quantity of preparation. While efforts have been made to improve the Instructor Preparation course since 2004, at this time, the course was identified as an area continuing to require improvement.

d. Professional Development – Professional development is important to all teaching occupations, and more so in remote regions where candidates may have less access to related experience. This was also an area identified for evaluation and improvement.

e. Instructor Facilities – Classroom facilities are dependent on what is made available by the schools, and where these may be less than ideal, they may reduce student attention and instructor performance. It was anticipated that the facilities component would be assessed for quality in the future.

f. Instructional Technologies – Instructional technologies have been developing rapidly in the DE field for some time, and they warranted consideration as an evaluation target. Included were driving simulators, and even in-car tracking devices; remote on-line –video transmission, and DVDs and CDs.

Each of the above program target areas was assigned a priority level based on time during the development of the Formative Evaluation Strategy document – Near (2008-09), Medium (2010-11) or Long Term (2012) Priority. Due to evolving corporate priorities, some program areas were either addressed minimally or not included in the Project. Several of these fell into the category of long term priority (see those identified with an asterisk*): Community Support; Regulatory Environment*; Supporting Policies and Procedures; Operations Management*; Marketing*; Tests and Measurement; Instructor Qualifications; Instructional Facilities; and Instructional Technologies*. An HSDE Development Plan, prepared in 2011, recommended addressing these areas at appropriate stages of new program development.

MANAGING THE PROJECT

The following diagram identifies the annual management processes that took place to ensure the evaluation was planned and implemented effectively and in a timely manner.

E. HSDE PROGRAM DESCRIPTION AND CHANGES OVER TIME

The Manitoba HSDE Program was started in 1966 under the Department of Public Works and later operated under the Division of Driver and Vehicle Licensing. Manitoba Public Insurance assumed responsibility for the HSDE in 1987. Under MPI's leadership, the program has achieved a wide acceptance within the province, and strong respect among experts internationally. MPI developed its own driver education curriculum and text book, launched in 2006.

The HSDE Program is delivered through approximately 225 instructors. These instructors are independent contractors, mostly part-time, who are supervised and monitored by MPI. The program is available to high school students in nearly all areas of the province, with the exception of some remote areas. The majority of eligible teens take advantage of the course (~11,000 per year – about 67% of all grade 10 students). The fee to students is $50, and total program costs are approximately $4 million, with a substantial subsidy borne by MPI. At a cost of about $350 per student, it is a very inexpensive program relative to comparable programs elsewhere.

At present, the HSDE Program consists of an in-class component and an in-car component, as well as required home-based practice. The in-class component consists of 34 one-hour units, typically delivered in 2-hour sessions held twice a week. The classroom component is delivered in a traditional high school manner (i.e. lecture, classroom activities, class discussion, and guest speakers) entirely in the classroom environment. Instructors have access to slides in DVD and transparency sheet formats (also available in Powerpoint), and the curriculum calls for use of these resources in each unit. The first four sessions are devoted almost entirely to the *Driver's Handbook* content and the basic rules of the road, in preparation for the Class 5 written knowledge test in the fifth lesson. Classroom instructors also administer the vision screening test. These tests require two one-hour classroom units.

The in-car component usually starts after the 5th or 6th classroom session and continues with one lesson per week for 8 weeks. It consists of eight hours of driving and 8 hours of observational learning. In addition, the students and their parents/guardians are expected to complete 24 hours of home-based driving practice between the start of the in-car driving lessons and the Class 5 road test. The bulk of this home-based driving practice occurs after the student has completed the driving lessons with the in-car instructor. Students and parents/guardians are expected to practise on their own for the next 6-7 months prior to taking the licensing test.

Around the time that students are taking their 2nd or 3rd classroom session, parents/guardians attend a two-hour session (the Parent Night Meeting) that includes information on: the course content, expectations of parents/guardians and students, teaching tips, driving tips, and parents' resources. Apart from the

Table 1: FORMATIVE EVALUATION (FE) PROJECT ACTIVITIES BY PROGRAM AREA and YEAR

PROGRAM AREA	YEAR 1 ACTIVITIES March 2008 - Aug.2008	YEAR 2 ACTIVITIES Sept. 2008 - Aug. 2009	YEAR 3 ACTIVITIES Sept. 2009 – Aug. 2010	YEAR 4 ACTIVITIES Sept. 2010 – Aug. 2011
PROGRAM THEORY & LOGIC				
Program Evaluation Needs & Assessment	• Developed Work Plan. • Ensured evaluation readiness. • Obtained management approval.	• Developed Work Plan. • Ensured evaluation readiness. • Obtained management approval.	• Developed Work Plan. • Ensured evaluation readiness. • Reviewed Work Plan with MPI Research Department. • Obtained management approval.	• Developed Work Plan. • Ensured evaluation readiness. • Reviewed Work Plan with MPI Research Department. • Obtained management approval. • Due to staff changes & program priorities, the Work Plan was not finalized until February, 2011, thus shortening the Formative Evaluation cycle. In addition, approximately half of Northport Associates' remaining time was allocated to the development of a plan for the HSDE New Program Model. • Reviewed the findings of the LSEDE Manitoba New Driver Survey Wave 1 for FE implications & prepared a report.
User Needs/ Perceptions & Monitoring	• Monitored problem definition & standards literature, current research & emerging issues. • Attended SAFEX2008. • Prepared annual monitoring report.	• Literature, research, & emerging issues monitoring ongoing. • Attended TRB Conference. • Presented on Evaluation & LSEDE Project at 2 U.S. Driver Education Conferences. • Prepared interim & year-end integrated monitoring reports. These reports included information related to both	• Literature, research & emerging issues monitoring ongoing. • Attended TRB Conference. • Attended National Summit for Rural Traffic Safety Culture. • Prepared year-end integrated monitoring report. • Piloted & evaluated new PowerPoint Presentation & new guidelines for instructors regarding the conducting of	• Literature, research & emerging issues monitoring ongoing. • Attended TRB Conference. • Prepared interim & year-end integrated monitoring reports. • Evaluated the Parent PPT presentation & guidelines (now used routinely at Parent Night Meetings) on an "as needed" basis only, when changes were required or problems arose.

		User Needs & Perceptions & Standards Benchmarking.	the Parent Night Meeting.	The Feedback Form was not used.
Program Logic	• Drafted a Logic Model. • Conducted jurisdiction survey to assist with revision of program mission statement, goals & objectives.	• Reviewed & updated the Logic Model to identify changes that had been identified in either external or internal environments or in program mandates & activities over the past year that should be reflected in the Model.	• Reviewed & updated the Logic Model to identify changes that had been identified in either external or internal environments or in program mandates & activities over the past year that should be reflected in the Model.	• Reviewed & updated the Logic Model to identify changes that had been identified in either external or internal environments or in program mandates & activities over the past year that should be reflected in the Model.
PROGRAM CONTEXT				
High School Support	• Rescheduled for Year 2.	• Hosted 2 Principals & Superintendents Committee meetings. • Documented discussion & outcomes with attention to Formative Evaluation issues.	• Hosted 2 Principals & Superintendents Committee meetings. • Documented discussion & outcomes with attention to Formative Evaluation issues.	• Hosted 1 Principals & Superintendents Committee meeting. • Documented discussion & outcomes with attention to Formative Evaluation issues.
Stakeholder Perceptions & Expectations	• Prepared & reviewed stakeholder list.	• Reviewed & updated stakeholder list.	• Reviewed & updated stakeholder list. • Documented relevant information from 2 meetings of the DE Revitalization Committee. • Documented relevant information from 2 meetings of the Instructor Advisory Committee. • Determined that the French Curriculum Committee would act as an ad hoc committee.	• Reviewed & updated stakeholder list.
Community Support	• Reviewed MPI Omnibus, Rolling Poll & Youth surveys. • Added new DE questions to Omnibus & Youth Surveys.	• Repeated new DE questions in ongoing MPI surveys. • Developed a tracking file of results for relevant DE questions.	• Repeated new DE questions in ongoing MPI surveys. • Updated the tracking file of results for relevant DE questions.	• Repeated new DE questions in the Omnibus Survey. The Youth Survey was not conducted during Year 4. • Updated the tracking file of results for relevant DE questions.
Regulatory Environment	• No action – Long term priority.	• No action – Long term priority.	• No action – Long term priority.	• No action – Long term priority.

		BUSINESS PROCESSES		
Instructor Support	• No action.	• Held a series of Regional Meetings with DE Instructors: ▪ Administered short survey on various aspects of meetings & prepared summary report. • Hosted annual In-Service meetings & workshops with instructors: ▪ Administered feedback survey & prepared Summary Report.	• Held 2 series of Regional Meetings. ▪ Administered meeting evaluation survey (feedback form). ▪ Prepared Summary Reports to document results of the meetings & survey. • Hosted annual In-Service Meetings & Workshops. ▪ Administered evaluation survey & prepared Summary Report with comparisons to Year 2 where appropriate. • Developed a Participant Feedback Form & emailed to instructors to obtain input on newly developed Webinars for specific purposes (e.g., new program initiatives). ▪ Prepared Summary Report.	• Held one set of Regional Meetings including a webinar: ▪ Additional meetings were postponed due to staff changes, & insufficient resources/ time. ▪ Administered evaluation survey. The feedback questionnaire was emailed to webinar participants, to be returned by e-mail, fax, or mail. ▪ Prepared Summary Report. • Hosted annual In-Service Meetings & Workshops. ▪ Administered evaluation survey & prepared Summary Report with comparisons to previous years where appropriate.
Customer Service	• No action.	▪ Reviewed DE Customer Service Standards (CSS) forms to reconcile overlap with formative evaluation tools where possible. • Developed & refined a Call Tracking Database. • Produced a quarterly report.	• Reviewed the Student In-Class CSS questionnaire for duplication with the Student Exit Survey questionnaire. • Reviewed the former Student In-Car CSS questionnaire for items to be included in the Student Exit Survey questionnaire. • Reviewed the in-class section of the Exit Survey questionnaire for problems with language & items with very low ratings.	• Conducted student pre-test & internal review of the Student CSS in-class questionnaire for problems with language & items with very low ratings. • Produced an updated Call Tracking Database Summary Report.

			• Improved the Call Tracking Database & produced an annual report.	
Supporting Policies & Procedures	• No action – Medium term priority.	• (A Program Policies and Procedures Manual was developed & reviewed for FE implications – see Operations Management).	• No further action.	• No further action.
Program Development	• Chairs Partner Committees – no meetings this year. • Forwarded ad hoc feedback from students, parents & stakeholders to program staff suggesting program improvements.	• Held strategic planning session with staff from Driver Education & Training, & Driver Testing, Policy & Evaluation. • No partner committees met except for the Principals & Superintendents Committee. • Forwarded ad hoc feedback from other staff, students, parents & stakeholders to program staff suggesting program improvements. • Developed a Program Ideas and Development document as a sub-project for a new Formative Evaluation Implementation project.	• Held strategic planning session with staff from Driver Education & Training, & included the Dept. Director Executive Director, & the Senior Business Analyst. • Introduced Program Logic Model to staff & confirmed several program development initiatives identified by the FE Project as corporate priorities. • Documented ad hoc feedback from other staff, students, parents & stakeholders in the Program Idea and Development Log, with action & follow-up processes to be addressed. • The Formative Evaluation Implementation Project developed a plan to identify all decisions made & actions taken as a result of Formative Evaluation findings from previous annual reports & to track progress towards their completion. • Created a Calendar of Program Improvement Initiatives to track effort by month as part of the DE Program Development Process.	• Postponed strategic planning sessions due to major program changes. • Due to staff changes & insufficient resources, an update of the Formative Evaluation Implementation plan did not take place. • Developed an HSDE New Model Development Plan in response to the Vision Paper. ▪ Produced an outline & then detailed report, focussing on nine priority program areas identified as the most important areas for the HSDE program to address first.

B. YEAR 5: SPECIAL PROJECTS

As explained earlier, the formative evaluation of Year 5 was divided between activities related to the HSDE Development Plan and ongoing formative evaluation tasks (special projects) to be completed by the end of the Project. The formative projects are described next.

STUDENT EXIT SURVEY

After several rounds of piloting and revising the Student Exit Survey questionnaire, it was finalized and approved for initial implementation in Year 5. The questionnaire contained in-class and in-car sections and was distributed by instructors to be completed by students in-class, and the completed questionnaires were collected and sealed in an envelope by a student to be returned to MPI. The survey was conducted between March and June, 2012.

Data entry and analysis was performed by an external vendor, according to MPI specifications. A preliminary set of files was submitted to HSDE staff and Northport Associates for review in March, 2012, and the final set of files was submitted in August, 2012.

The Final Report documenting the survey design, methodology, questionnaire development and findings is found in Appendix 4.

An online version of the questionnaire was piloted during survey implementation to investigate the feasibility of moving the survey exclusively onto an online format in the future (see Appendix 5).

INSTRUCTOR ASSESSMENT FORMS

The Instructor Assessment Forms (formerly called Instructor Compliance and Delivery Modules) were developed in detail in Year 5. Previous work on item identification used MPI's CSS in-class and in-car instructor evaluation forms, as well as relevant forms from other jurisdictions, primarily Oregon, and Northport expertise.

The preliminary list of items for both in-class and in-car assessment and originally for two new assessment modules (Technical Performance and Scope and Sequence) as well as the CSS Evaluation Forms was used to draft forms that integrated all three sets of items separately for in-class and in-car instructor assessment by Liaison Officers (LOs). The draft forms will be finalized once they have been reviewed with LOs and revised as necessary. Their use will be piloted before they become fully operational. The draft In-Class form is found in Appendix 6. The In-Car form has not been drafted at this time.

DE INDUSTRY MONITORING REPORT

As in previous years ongoing monitoring of research and industry developments was supplemented by safety and educational research database searches, with a few key documents with particular relevance for HSDE being selected for

beginner driver education programs in the world. The following are the principal strengths of the program:

- Centralized organization within MPI
- Reasonably well staffed with management, supervisory and operational personnel compared to other public driver education programs
- Organizational support within MPI
- Student subsidization
- A new curriculum, implemented in 2006, which addressed some of the concerns of instructors and management re updating program content and its delivery
- Custom textbook for new curriculum
- Control over instructor preparation and certification, in conjunction with Red River College
- Fairly high market penetration – 64% of new drivers
- Strong public support – 94% of general public would recommend HSDE
- Good customer satisfaction
- Class 5 written test administered in classroom
- Coordination with public education and social marketing (e.g., "60 Second Driver Tips", MPI web site)
- History of R&D participation and input
  - Longitudinal Study, Northport Associates
  - Large Scale Evaluation of Driver Education, AAA Foundation for Traffic Safety
- Modest program development capacity is good compared to other public driver education programs

PROGRAM WEAKNESSES OR CHALLENGES

Despite its acknowledged strengths, there are justified concerns about the HSDE Program. While the HSDE Program has many unique strengths compared to public driver education programs in other jurisdictions, there are also identifiable weaknesses. This is particularly true if one considers the program, not just against other programs but against the rather difficult goal of effectively changing new driver behaviour enough to create a measurable safety benefit.

The program's Formative Evaluation Project and quality management processes found a number of specific issues with the current HSDE Program that require improvement, including:

- Staffing levels, R&D, and program development capability limited compared to high-quality private driver education

- The program completed early in the first graduated licensing phase
- Weak coordination with GDL (e.g., single stage program)
- No ongoing student and/or parent involvement after the program
- Limited parent/guardian contact during the program
- Widely variable instructor capabilities
- Instructors have too much flexibility in terms of content and delivery
- Lack of comprehensive instructor training and materials
- Ongoing professional development and support for instructors need significant improvement
- In-class material not interactive enough and too lecture-based
- In-class material not well integrated with in-car training
- Supervised driving with the practice log not well integrated into the program
- Limited program availability in some remote areas
- Large class sizes
- Limited ongoing R&D
- Low tech delivery compared to high-quality private driver education programs elsewhere
- Extreme price sensitivity on the behalf of stakeholders so that program is one of the least expensive anywhere

In contrast to MPI HSDE Program's relatively unique strengths, most of these weaknesses are shared with the majority of public programs in other jurisdictions. These are mostly common areas of weakness, where only a few jurisdictions or private programs have already taken action to move ahead; for example some jurisdictions have multi-stage training requirements and exit tests under GDL. These (and other potential areas to be identified through evaluation research) provide very substantial opportunities for MPI to make progress in its programs and to advance its leadership in driver education.

3. PROGRAM RECOMMENDATIONS AND ACTIONS

A. OVERALL PROGRAM RECOMMENDATIONS

In each annual report of the Project, both evaluation and program development recommendations were put forth for all relevant program areas and targets. This section presents program recommendations only. These recommendations were based on each year's Formative Evaluation findings and also program development activities related to the Evaluation Project. Major recommendations

NEXT STEPS: ORGANIZATIONAL and POLICY ISSUES

During the Stage 1 planning for development of the nine Priority Modules, several key issues and decision requirements have been identified and are presented here for MPI's consideration. The following fundamental organizational and policy decisions are needed to guide further planning and work on the Priority Modules and the rest of the New Model.

- Decision process: Overall Go–No Go decision
- Financial commitment for HSDE program development and operations
- Incremental additions vs. comprehensive overhaul
- Organization of development resources and structure
- Implementing the new program structure and operations
- Planning for ongoing evaluation and program development

With new advances in standards moving ahead in the U.S. and internationally, it is timely and opportune for MPI to initiate its own advance in Driver Education through the HSDE Program New Model. Manitoba is one of very few jurisdictions in North America that has the capability to undertake such a comprehensive effort.

D. EVOLVING ROLE FOR MPI DRIVER EDUCATION

It is clear that MPI's HSDE program is better managed and organized, and may be stronger overall than public beginner driver education programs in most other jurisdictions.

Such broad comparisons notwithstanding, the Formative Evaluation Project and the Summative Evaluation of student outcomes make it clear that there are great opportunities and substantial need for improvement in Manitoba's HSDE Program. An evolving role for MPI Driver Education can leverage MPI's natural advantages, as both the Driver Education provider and Driver Regulator for the province, to produce progress toward substantial improvement and cost effective safety impacts.

Within driver education itself, despite its acknowledged strengths, there are significant weaknesses. For example, relative to some private driver education, HSDE's curriculum materials and technologies are low-tech and seriously dated. The proposed New Model would close this gap, permitting more effective and efficient training of key driver skills and improving opportunities for influencing novice drivers' attitudes and motivation. Such improved student outcomes are a critical step towards making driver education effective in meeting its ultimate goal, greater levels of safety for new drivers.

Relative to the stated goals of improving young driver safety, probably all public programs are far from strong enough to have the desired impact. This relative weakness of impact is, of course, also true of most other driver-oriented safety programs, not just driver education. Since education and training are important parts of all driver safety programs, more effective education and training methods developed within driver education can also be leveraged to raise the effectiveness of other driver safety programs in the province, such as driver improvement and maintaining safe mobility for seniors.

Examples of such risk groups include young drivers, motorcyclists, cyclists, and pedestrians. Timing for execution of certain road safety campaigns is further informed by analysis of collision data and input from other stakeholders including law enforcement partners.

b) The Corporation has not developed such a report.

c) Please see the response to PUB (MPI) 1-102.

d) The auto theft suppression strategy is the only program that can be clearly categorized as a loss prevention initiative. Since 2006, the Corporation has filed every evaluation of claims cost savings that has been produced. No further reports or evaluations are available.

e) Please see response to (d).

f) Please refer to CI.6.3 and the response to (d) above.

g) Copies of the Traffic Collision Statistics Report for the calendar years 2007-2011 have been provide electronically only. The 2012 Traffic Collision Statistics Report has not been finalized.

h) While not intended to be an exhaustive list, other partners/agencies involved in road safety and auto crime include:

- Addictions Foundation Manitoba
- Altona Police Service
- Alzheimers Society
- ATV Association of Manitoba
- Bike Winnipeg
- Brandon Fire Department
- Brandon Police Service
- CAA Manitoba
- Canadian Red Cross
- Citizens on Patrol (COPP)
- City of Winnipeg
- Coalition of Manitoba Motorcycle Groups
- CN Police Service

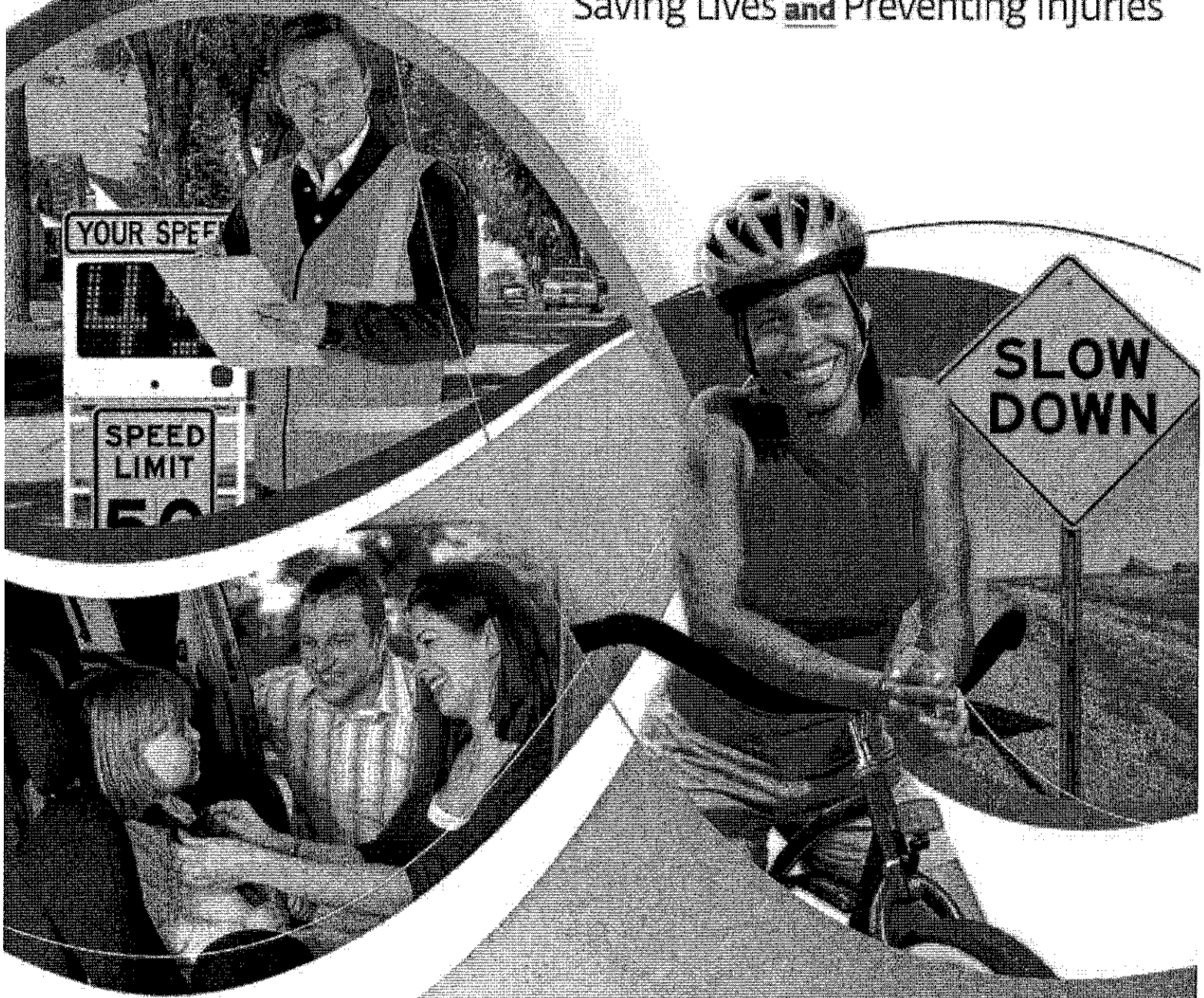
- CP Police Service
- Dakota Ojibway Police Service
- Driving schools and driving instructors
- Government of Manitoba
- Green Action Centre
- Keystone Agricultural Producers
- Manitoba Association of Automobile Clubs
- Manitoba Association of Chiefs of Police
- Manitoba Association of Senior Centres
- Manitoba Association of School Trustees
- Manitoba Brain Injury Association
- Manitoba Heavy Construction Association
- Liquor and Lotteries
- Manitoba School Boards Association
- Manitoba Trucking Association
- Mid-Canada Marine and Powersports Dealers Association
- Morden Police Service
- Mothers Against Drunk Driving
- North End Community Renewal Corporation
- Portage La Prairie Fire Department
- RCMP
- Rivers Police Service
- RM of Cornwallis Police Service
- RM of Whitehead Police Service
- St. John Ambulance
- Safety Services Manitoba
- Scootering Manitoba
- Snoman Inc.
- Springfield Police Service
- St. Anne Police Department
- Transportation Options Network
- Victoria Beach Police Service
- Winkler Police Service
- Winnipeg Fire Paramedic Service
- Winnipeg Police Service
- Winnipeg Regional Health Authority

101

Manitoba Public Insurance

Safer Roads

Saving Lives and Preventing Injuries



Results of Public Consultation

March 2012

Executive summary

From May through July 2011, Manitobans were invited to share their views on Manitoba Public Insurance's role in the area of road safety.

The Corporation was aware through previous surveys that a large majority of people believe Manitoba Public Insurance should be involved in efforts to make driving safer.

Prior to developing a new road safety plan, the Corporation advanced a public consultation process, where we hoped to obtain a better sense of the areas of greatest interest, and to determine what strategies would be broadly supported.

There is clear support for a broader role for Manitoba Public Insurance. Road safety is an issue that matters a great deal to the public, and to the many stakeholders and expert groups in the province — who all have important mandates and strong viewpoints.

Support from citizens for Manitoba Public Insurance's actions seem grounded in clear understanding of the linkages between claims costs and rates. It has been and remains important to us to align our activities and programs with public expectations and to build public awareness and understanding for emerging approaches that can reduce risk on the road.

An important consideration for the Corporation, as it works to answer the call for a new and perhaps broader role in the Manitoba road safety area will be how best to fund new initiatives that will not immediately result in lower claims costs.

For many years the Public Utilities Board of Manitoba (PUB), with the legislated mandate to review and approve basic Autopac rates, has been supportive of the Corporation taking an active role in road safety and in Order 122/10 at page 52, the PUB recommended that the Corporation establish a Road Safety Fund out of the Rate Stabilization Reserve, with the funds to be used for enhanced and new road safety research and initiatives. The Corporation takes the view that such a fund would be particularly appropriate where there are identified initiatives that have an expected measurable impact on claims costs, or that have a specific defined objective, so that as the funds are used, there is a decreasing need for further funding. The immobilizer fund is an example of where this approach worked well. However, many road safety initiatives do not have such a clear payback, although there may be consensus that the initiatives are worthwhile. In that case, it may be better to build the cost of the initiative into revenue requirements so the initiatives are sustainable.

The Corporation is committed to work with its stakeholders and consult with government to establish a clear road safety role and mandate.

Emerging themes

Through this three-month consultation process, some common themes have emerged:

Existing road safety programs

Manitobans are extremely supportive of the Corporation's existing programs that focus on creating awareness and educating the public about road safety risks. The consultation showed there is wide support, from all sources, for Manitoba Public Insurance continuing to be active in the area of road safety. Manitobans recognize that wise investments in road safety can reduce collisions, which in turn reduce claims, claims costs and, ultimately, Autopac premiums. In fact, the online survey suggests nine out of 10 people believe the Corporation should be involved in promoting road safety in Manitoba. This strong support is consistent with previous surveys.

Road Safety leadership

Stakeholders and the public alike view Manitoba Public Insurance as a leader in road safety and believe the Corporation should be more active in this area. Eight out of 10 respondents to the online survey said the Corporation should play a lead role in road safety. In particular, many stakeholders recognized and called upon Manitoba Public Insurance as the administrator of Manitoba's universally available and compulsory auto insurance program, to provide strategic leadership, vision and direction in the areas of road safety.

A

Two organizations that work in the road safety field across North America (Traffic Injury Research Foundation (TIRF) and Northport Associates) provided evidence that there is a substantial body of knowledge across the world on all aspects of road safety (education, engineering, enforcement, human behaviour, etc.) that, in general, is not being used effectively in any jurisdiction. They indicated that, in their view, this is largely because in most jurisdictions, government funding is constrained and many individual groups undertake their own road safety initiatives without the benefit of multi-disciplinary consultation and collaboration. Another issue is that, in competitive auto insurance arenas, the cost/benefit of road safety investments cannot be directly associated to any one insurer, as funder of the investment.

B

Thus effective road safety strategies are often difficult to fund and execute. As a result, best practices are rarely followed and in some cases, there is no readily identifiable "best practice."

Manitoba Public Insurance is an active participant on the Canadian Council of Motor Transport Administrators (CCMTA), the Canadian Association of Road Safety Professionals (CARSP), and the American Association of Motor Vehicle Administrators (AAMVA). We are proud contributors to the positive work being done to improve road safety across Canada and North America and believe there may well be opportunities to leverage the leadership work of these groups given our unique role here in Manitoba.

From virtually all stakeholders, there was recognition that the Corporation has unique insight into road safety issues given our experience and knowledge of drivers and their related claims and road safety behaviour. It was also recognized that Manitoba Public Insurance pays a substantial portion of the cost of roadway crashes through auto insurance claims. Not only might it be easier to implement best practices, but Manitoba Public Insurance may be in an ideal position to invest in the development of best practices where none clearly exist today.

Partnerships

There are many groups, organizations and experts currently working in the area of road safety. Many of these groups and individuals told us they could be much more effective if they worked in a coordinated way, rather than in silos. They said there is a compelling need for a single agency to coordinate the efforts of all the key players in the road safety arena. They expressed strong interest in working collaboratively with Manitoba Public Insurance and in jointly creating community-based initiatives to advance road safety in the province. Stakeholders have been encouraged by the results they've seen of the programs coordinated by Manitoba Public Insurance, such as the successful fight against auto theft.

Data collection

Numerous organizations — including Manitoba Public Insurance, police departments and others — collect collision data and information. Data is critical to informing decisions about how road safety resources are used, and programs are implemented. We frequently heard from stakeholders that these organizations should share information, data, research, analysis and expertise to more effectively formulate coordinated road safety policies and programs. Manitoba Public Insurance has the most complete repository of road safety related data in the province. This could be augmented with data that is compiled by other organizations to provide a holistic view of road safety information. Some groups suggested that Manitoba Public Insurance should act as the central repository to facilitate the sharing of data amongst stakeholders for research and making informed decisions.

Research and evaluation

Academic groups and others made a strong case for Manitoba Public Insurance to take a much more active role in road safety research. They cited other jurisdictions that have established university-based research centres for road safety, and pointed out that Manitoba has the local expertise to facilitate research on road safety issues specific to our province. The Corporation's road safety data would provide an invaluable resource, for not only research but to obtain unique insights into issues relevant to Manitoba for development of made-in-Manitoba solutions to road safety.

Stakeholder groups frequently spoke about the importance of program evaluation and requested greater clarity on how the Corporation measures the effectiveness of its road safety programs and initiatives. They also requested that evaluation results be shared amongst organizations and experts working in the field of road safety. They suggested Manitoba Public Insurance is well positioned to coordinate evaluation of programs with researchers and share the information and insights with key stakeholders.

Education, training and awareness

Manitobans strongly support Manitoba Public Insurance being involved in road safety education, but suggested existing programming may not go far enough. In particular, there is broad support for the High School Driver Education program, but we frequently heard the program should be more extensive and challenging. Suggestions included more challenging field tests, higher-level driving skills, online delivery of programming, and greater use of technology such as driving simulators.

Looking beyond the teen years, there is support for more and better training options for drivers of all ages and levels of experience. There was also interest in customizing current programs, or developing new ones, to meet the needs of unique audiences — particularly high-risk drivers, First Nations peoples and new immigrants.

Manitobans strongly support the Corporation's ongoing efforts to influence driving behaviour, and frequently suggested Manitoba Public Insurance should explore opportunities to affect behavioural change through social marketing and the use of social media.

Enforcement

Manitoba Public Insurance currently funds enforcement programs such as RoadWatch which, along with education and awareness efforts, intended to reduce the incidence of impaired driving. Conversations with Manitobans suggested there is support for enforcement activities that target very specific issues, such as impaired driving and distracted driving. While general public support for funding traffic-related enforcement was mixed on topics other than impaired and distracted driving, support from stakeholder groups was more consistent.

Infrastructure

Infrastructure initiatives that could improve road safety include intersection reconfiguration, rumble strips, reflective signs, paved shoulders, guardrails, dedicated lanes for cyclists and anti-skid road surface treatments. While some members of the public questioned whether Manitoba Public Insurance should fund these types of improvement initiatives, the majority said they would support funding road improvements that enhance safety—particularly if there is a clear cost benefit i.e. if savings in reduced claims exceed the cost of the improvement. Most stakeholder groups also said they would support road improvements that would save more than they cost.

Aside from funding improvements, some stakeholders identified opportunities for Manitoba Public Insurance to participate in road safety audits and to use its collision data to identify areas at high risk of collisions. This in turn could identify areas where improvements could reduce collisions.

MANITOBA PUBLIC INSURANCE

Years ended February 28/29	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Number of Claims (#) - Note 1										
Amputation	6									
Burns	12									
Dental	33									
Internal Injury	15									
Psychological	242									
Sensory Loss	25									
Fatal	130	172	126	135	131	159	161	144	157	139
Brain damage - Note 2	246	276	146	66	44	86	74	80	69	97
Quadriplegic	2	6	2	6	3	5	1	3	4	3
Paraplegic	2	1	1	3	6	6	14	9	5	8
Broken bones	771	849	705	754	766	785	837	728	703	811
Sprains and strains - Note 3	4,821	3,980	3,198	0	0	0	0	0	0	0
Whiplash	9,273	8,646	10,735	13,885	14,669	15,173	14,508	12,725	12,490	12,249
Bruising/Lacerations	975	1,072	1,366	801	651	707	610	539	692	871
Other	557	1,593	907	1,021	673	790	1,238	1,592	1,556	1,515
Total	17,110	16,595	17,186	16,671	16,943	17,711	17,443	15,820	15,676	15,693
Severity ($) - Note 1										
Amputation	142,865									
Burns	6,249									
Dental	5,151									
Internal Injury	0									
Psychological	1,712									
Sensory Loss	4,871									
Fatal	71,685	54,044	72,001	73,139	71,659	63,263	82,169	68,098	56,553	52,960
Brain damage - Note 2	74,522	27,417	98,037	248,783	236,840	196,148	374,972	270,070	245,515	352,744
Quadriplegic	427,550	496,714	210,105	528,075	764,724	1,450,103	501,744	235,451	1,709,728	1,775,802
Paraplegic	1,855,853	3,864,061	1,232,386	577,289	455,210	548,747	779,824	752,863	1,031,121	939,352
Broken bones	25,373	27,303	30,926	26,669	30,103	30,864	34,995	40,419	24,008	31,140
Sprains and strains - Note 3	3,143	4,477	4,412	0	0	0	0	0	0	0
Whiplash	3,452	4,724	3,551	2,010	1,977	1,828	1,796	1,953	1,682	1,940
Bruising/Lacerations	3,089	4,295	3,455	5,510	6,078	5,826	4,591	4,331	3,553	4,070
Other	2,152	2,729	6,855	5,412	7,176	8,528	6,417	5,097	4,882	5,300
Total	6,029	6,900	6,401	5,347	5,057	5,663	6,793	6,550	5,470	7,329

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2012-2013 Sponsorship
Corporate Sponrsorships/Grants/Donations

Recipient Company	Details	Actuals $
University of Manitoba	Annual Orthopaedic Symposium	1,200.00
University of Manitoba Faculty of Social Work	2nd International Indigenous Voices in Social Work Conference	1,000.00
Valley Agricultural Society	Rodeo Event - Morris	10,000.00
Victoria Inn	End Hunger Dinner	200.00
Villa Rosa Inc	Celebration of Motherhood dinner	2,500.00
Vision Quest Conference	Annual Conference and Trade Show	1,650.00
West Broadway Development Corp	West Broadway Snoball	400.00
West End Bliz	Annual Sweep Off Sponsor	250.00
Whites' Drug Store	Swan River Curling Classic - Bronze sponsosrship	150.00
Winkler Harvest Festival	Festival Sponsor	1,000.00
Winnipeg Chamber of Commerce	Voluntary capital contribution	520.00
Winnipeg Chamber of Commerce	State of the Province, State of the City Events	895.00
Winnipeg Chamber of Commerce	Commemorative Anniversary Lunch	1,350.00
Winnipeg Folk Festival	Music Festival Sponsor, Wassail Gala	9,500.00
Winnipeg Folk Festival	Capital funding - one time payment	100,000.00
Winnipeg Habitat for Humanity	Muddy Waters Family Ride and House Party and Auction Dinner	6,300.00
Winnipeg Habitat for Humanity	2013 Hammer Time - one team	2,500.00
Winnipeg Harvest Inc	2012 Empty Bowls Charity Auction	2,500.00
Winnipeg Police Association	88th Annual Charity Ball	2,700.00
Winnipeg Symphony Orchestra	Season Sponsorship	15,000.00
YMCA YWCA Winnipeg	Women of Distinction Awards	3,500.00
YWCA Brandon	Women of Distinction Awards - Brandon	440.00
Total		**1,517,571.03**

Road Safety Sponsorships

Recipient Company	Details	Actuals $
Bike to Work Day Winnipeg	Bike to Work Winnipeg	5,000.00
Brandon Crime Stoppers	Annual Sponsorship	3,500.00
Brandon MADD	Red Ribbon Campaign 2012	1,000.00
Brandon Monster Mash	Safe halloween event	350.00
Canadian Red Cross	Annual Power of Humanity Awards Gala	15,000.00