



RESULTS OF TRANSPORT CANADA'S RURAL AND URBAN SURVEYS OF SEAT BELT USE IN CANADA 2006-2007

BACKGROUND

The National Occupant Restraint Program (NORP 2010) is an important element of Road Safety Vision 2010 — an ambitious partnership approved by the federal, provincial and territorial ministers responsible for transportation and highway safety to make Canada's roads the safest in the world. The objective of the National Occupant Restraint Program is to achieve a minimum 95% rate for national seat belt use and the proper use of child restraints by all motor vehicle occupants. Transport Canada's contribution to this program of promoting seat belt use is to conduct observational surveys.

In September 2006, Transport Canada conducted an observational survey of seat belt use in rural communities across Canada. Then, in September 2007, the same survey was conducted in urban communities. For the first time in both the rural and urban surveys, data on cell phone use by drivers were also collected

METHOD

The September 2006 and September 2007 surveys measured the seat belt usage separately in rural Canada and urban Canada. Rural Canada includes towns with a population of fewer than 10,000 but more than 1,000 inhabitants that are located outside any census metropolitan area or census agglomeration¹. Urban Canada includes communities with a population over 10,000, plus those communities with a population of less than 10,000 that are located within a census metropolitan area.

The rural survey targeted all occupants of light-duty vehicles, which included passenger cars, light trucks, minivans and sport utility vehicles (SUVs). The survey, which occurred over the week of September 15 to 21, 2006, involved 249 sites. Each observation period was two hours long and took place during daylight hours (between 7:30 a.m. and 18:30 p.m.). A total of 41,137 vehicles and 60,616 occupants were observed during the course of the survey.

The urban survey targeted all occupants of light-duty vehicles, which included passenger cars, light trucks, minivans and SUVs. This survey, which was conducted over the week of September 15 to 21, 2007, involved two separate observation periods at each of 270 sites. Each observation period was one hour long and took place during daylight hours

¹ To be more exact, the definition used in this survey also includes those communities that have a population over 10,000 but are not classified as census agglomerations in Statistics Canada 2001 census.

(between 7:30 a.m. and 18:30 p.m.). A total of 92,440 vehicles and 121,986 occupants were observed during the course of the study.

Therefore, during the two surveys, a total of 133,577 vehicles and 182,602 occupants were observed at 519 sites across Canada.

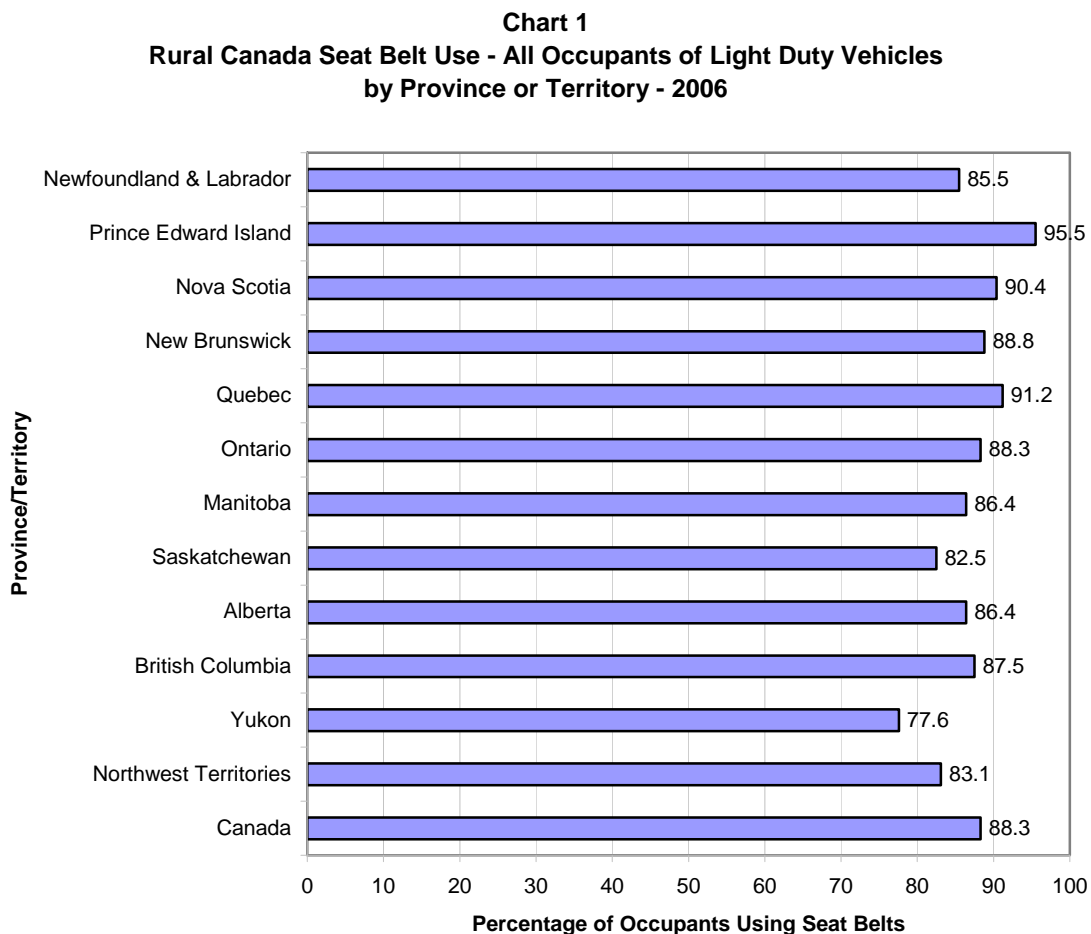
HIGHLIGHTS

- In Canada, 92.5% ($\pm 0.3\%$) of occupants of light-duty vehicles buckle up. In urban communities, an estimated 93.1% ($\pm 0.3\%$) of all occupants and an estimated 88.3% ($\pm 0.3\%$) of all occupants of light-duty vehicles in rural communities use seat belts. The national seat belt use rate measured in the 2006-2007 surveys is 2 percentage points higher than that measured in the 2004-2005 surveys.
- The rate of seat belt use in Canada is much lower among occupants of pickup trucks (88.1%) than among occupants of passenger cars (93.3%) and minivans and SUVs (93.3%). Specifically looking at drivers, the rates were 93.8% for passenger cars, 93.8% for minivans and SUVs, and 88.6% for pickup trucks. Similar trends were evident in both the rural and urban communities of the country.
- A higher percentage of female drivers (95.2%) than male drivers (91.8%) wore seat belts. The higher rate of seat belt use by females was consistent across all three vehicle types and all provinces and territories.
- The proportion of drivers wearing seat belts tends to increase with the driver's age group, but this finding is not consistent across all jurisdictions. In Canada as a whole, the proportion ranges from 90.3% of those under 25, to 93.3% of those 25 to 49 and 93.8% of those 50 and older.
- The rate of seat belt use in Canada is lower among back seat occupants (86.5%) than among front seat occupants (92.7%). The higher rate of seat belt use by front seat occupants is generally consistent across all jurisdictions with a few exceptions.

DETAILED RESULTS

Seat Belt Use for All Occupants by Province or Territory

Chart 1 shows that in rural communities, an estimated 88.3% ($\pm 0.3\%$) of all occupants of light duty vehicles use seat belts. Jurisdictions at or above the national average were Prince Edward Island, Nova Scotia, New Brunswick, Quebec and Ontario. Those below the national average were Newfoundland and Labrador, Manitoba, Saskatchewan, Alberta, British Columbia, the Yukon and Northwest Territories. The seat belt use rates were not measured in Nunavut in 2006.



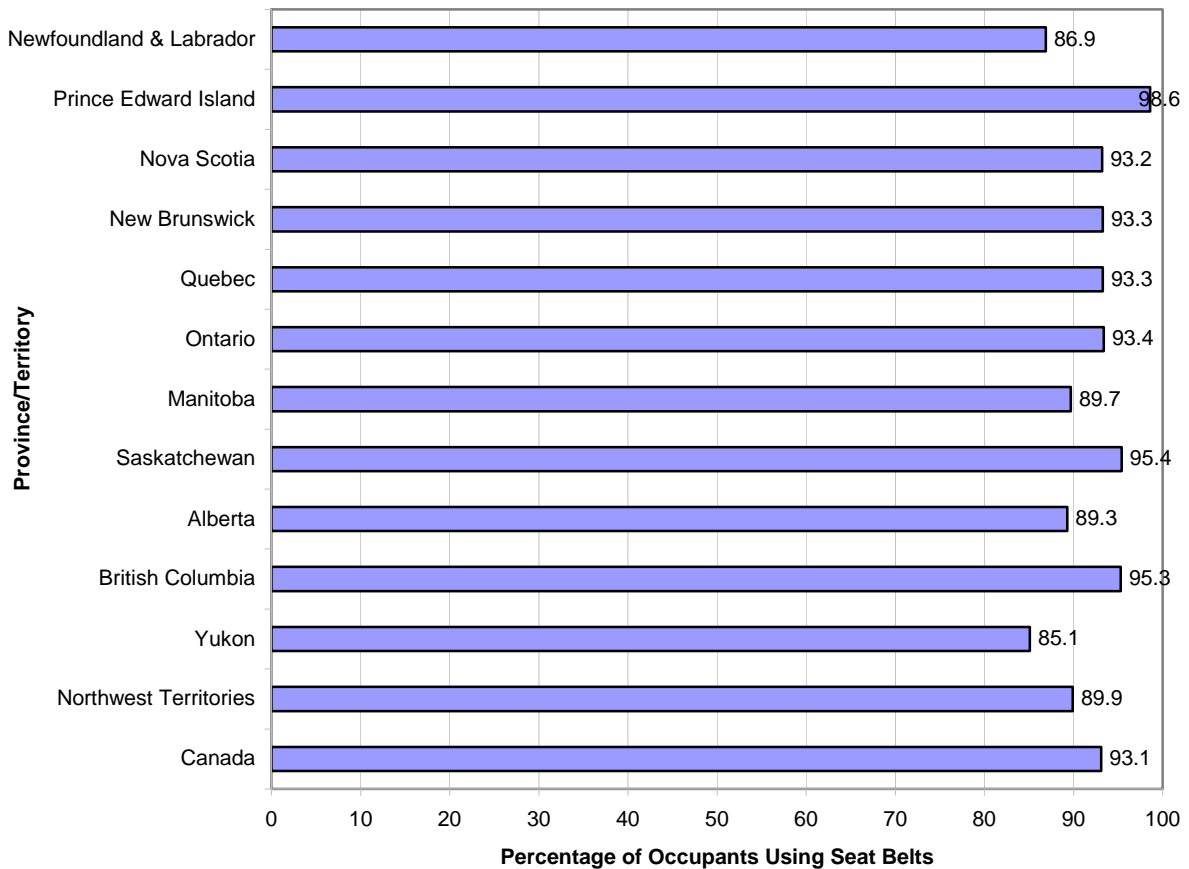
Comparison of the rural survey results for 2004 and 2006

- In rural communities, seat belt use by occupants of light duty vehicles increased 1.4 percentage points between the surveys of 2004 (86.9%) and 2007 (88.3%).

Chart 2 shows that in urban communities, an estimated 93.1% ($\pm 0.3\%$) of all occupants of light-duty vehicles use seat belts. Jurisdictions at or above the national average were

Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan and British Columbia. Those below the national average were Newfoundland and Labrador, Manitoba, Alberta, and the two territories surveyed.

Chart 2
Urban Canada Seat Belt Use - All Occupants of Light Duty Vehicles
by Province or Territory - 2007

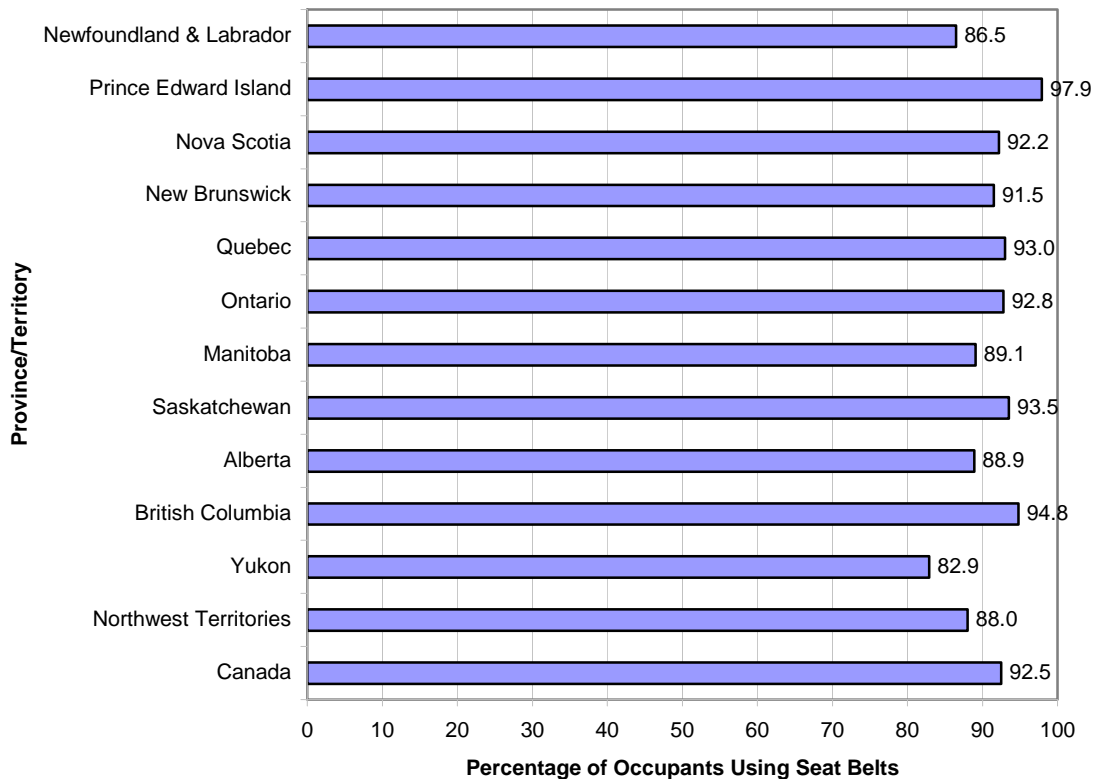


Comparison of the urban survey results for 2005 and 2007

- Seat belt use by occupants of light duty vehicles in urban communities increased to 93.1% in 2007, up 2.0 percentage points from 91.1% in 2005.

Chart 3 shows that an estimated 92.5% ($\pm 0.3\%$) of all occupants of light-duty vehicles in Canada use seat belts. The jurisdictions at or above the national average in 2006-2007 were Prince Edward Island, Quebec, Ontario, Saskatchewan and British Columbia. Those below the national average were Newfoundland and Labrador, Nova Scotia, New Brunswick, Manitoba, Alberta, and two of the three territories. The seat belt use rates were not measured in Nunavut in 2006.

Chart 3
Rural and Urban Canada, Seat Belt Use - All Occupants of Light Duty
Vehicles by Province or Territory, 2006-2007



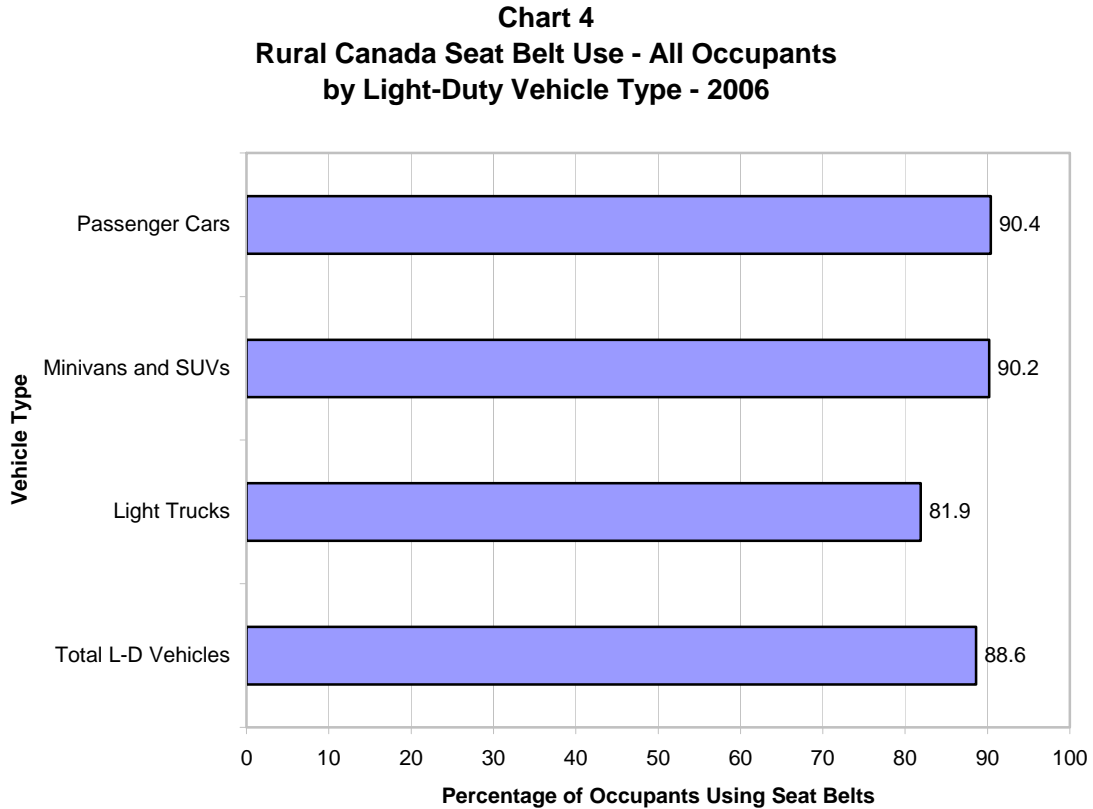
Comparison of the national survey results for 2004-2005 and 2006-2007

- In Canada, the combined rural/urban surveys resulted in an estimated seat belt use rate of 92.5% for all occupants of light duty vehicles for 2006-2007, up 2.0 percentage points from the 90.5% estimate from the 2004-2005 surveys.

Seat Belt Use by Light-Duty Vehicle Type

In the rural survey, 49.4% of vehicles were passenger cars, 23.8% were minivans and SUVs, and 26.8% were light trucks.

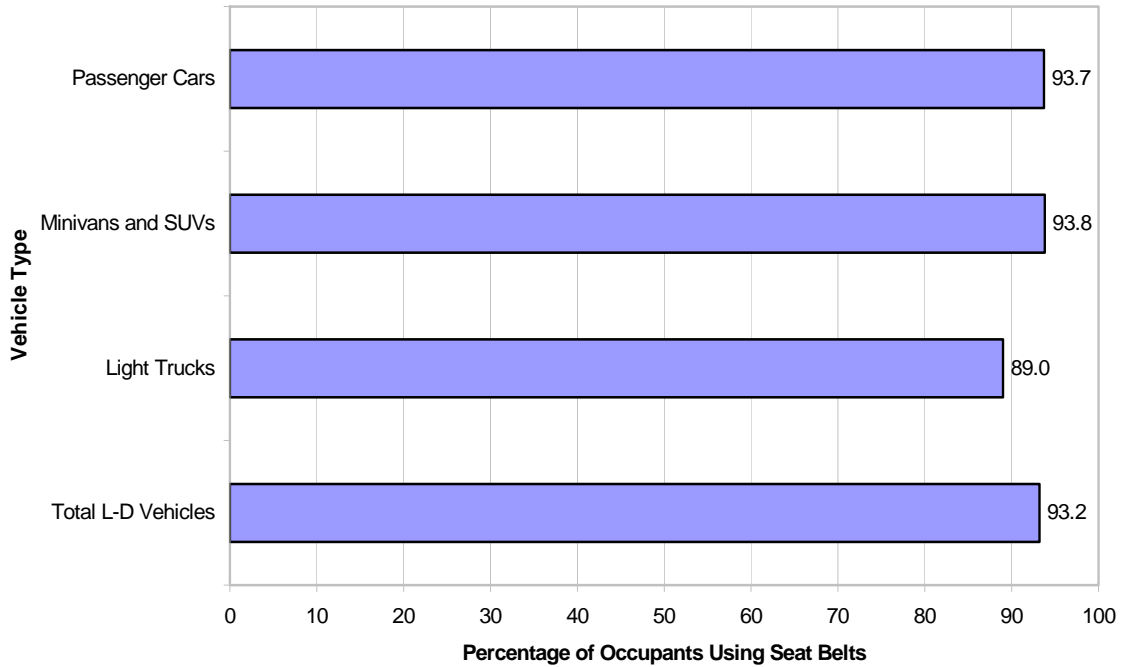
Chart 4 shows that in rural communities, the rate of seat belt use is much lower among all occupants of pickup trucks (81.9%) than of passenger cars (90.4%) and minivans and SUVs (90.2%). For drivers specifically, the rates were 91.4% for passenger cars, 91.9% for minivans and SUVs and 82.3% for pickup trucks.



In the urban survey, 59.0% of vehicles were passenger cars, 26.3% were minivans and SUVs, and 14.7% were light trucks.

Chart 5 shows that in urban Canada, the rate of seat belt use is much lower among all occupants of pickup trucks (89.0%) than of passenger cars (93.7%) and minivans and SUVs (93.8%). For drivers specifically, the rates were 94.1% for passenger cars, 94.1% for minivans and SUVs and 89.5% for pickup trucks.

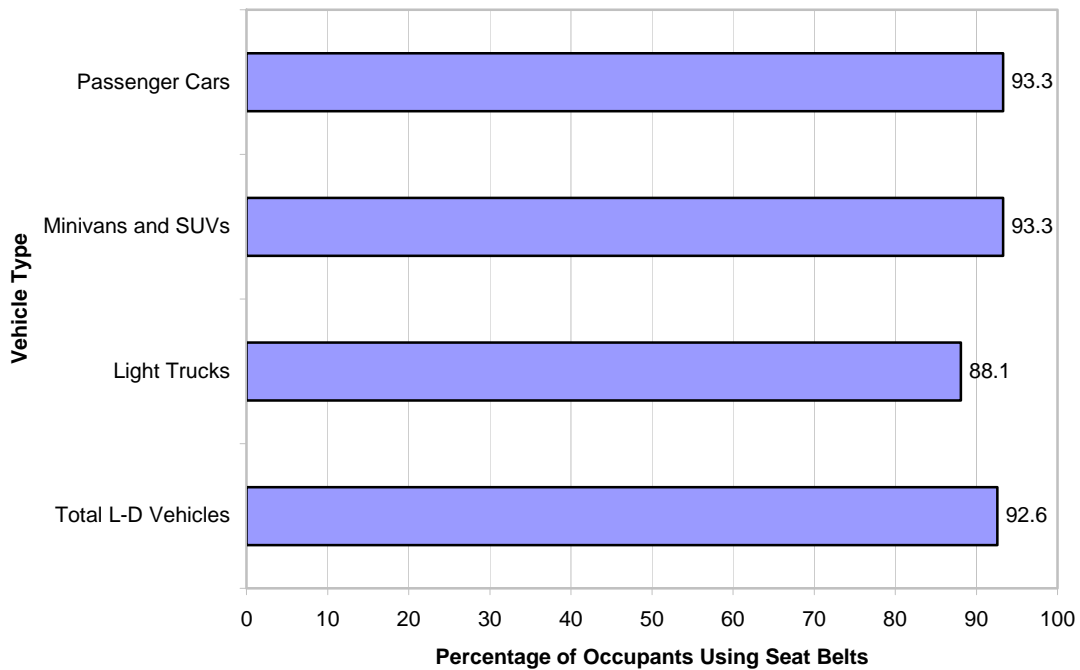
Chart 5
Urban Canada Seat Belt Use -All Occupants
by Light-Duty Vehicle Type - 2007



In the 2006-2007 surveys, 56.0% of vehicles were passenger cars, 25.5% were minivans and SUVs, and 18.5% were light trucks.

Chart 6 shows that in Canada, the rate of seat belt use is much lower among all occupants of pickup trucks (88.1%) than among those of passenger cars (93.3%) and minivans and SUVs (93.3%). For drivers specifically, the rates were 93.8% for passenger cars, 93.8% for minivans and SUVs and 88.6% for pickup trucks.

Chart 6
Rural and Urban Canada, Seat Belt Use - All Occupants
by Light-Duty Vehicle Type - 2006-2007



Seat Belt Use by Gender of Driver and Vehicle Type

Chart 7 shows that a higher percentage of female drivers wear seat belts (92.9%) than male drivers (87.6%) in rural communities.

- The higher rate of seat belt use by females was consistent across all three vehicle types. The difference ranged from 2.4 percentage points for minivans and SUVs (93.3% for females vs. 90.9% for males) to 4.0 points for light trucks (85.9% for females vs. 81.9% for males).
- Other data from the survey show that the higher rate of seat belt use by females is consistent across all provinces and territories. The differences ranged from 0.7 percentage points in Prince Edward Island (94.9% for females vs. 94.2% for males) to 13.9 points in Northwest Territories (93.5% for females vs. 79.6% for males).

Chart 7
Rural Canada Seat Belt Use by Gender of Driver and Vehicle Type - 2006

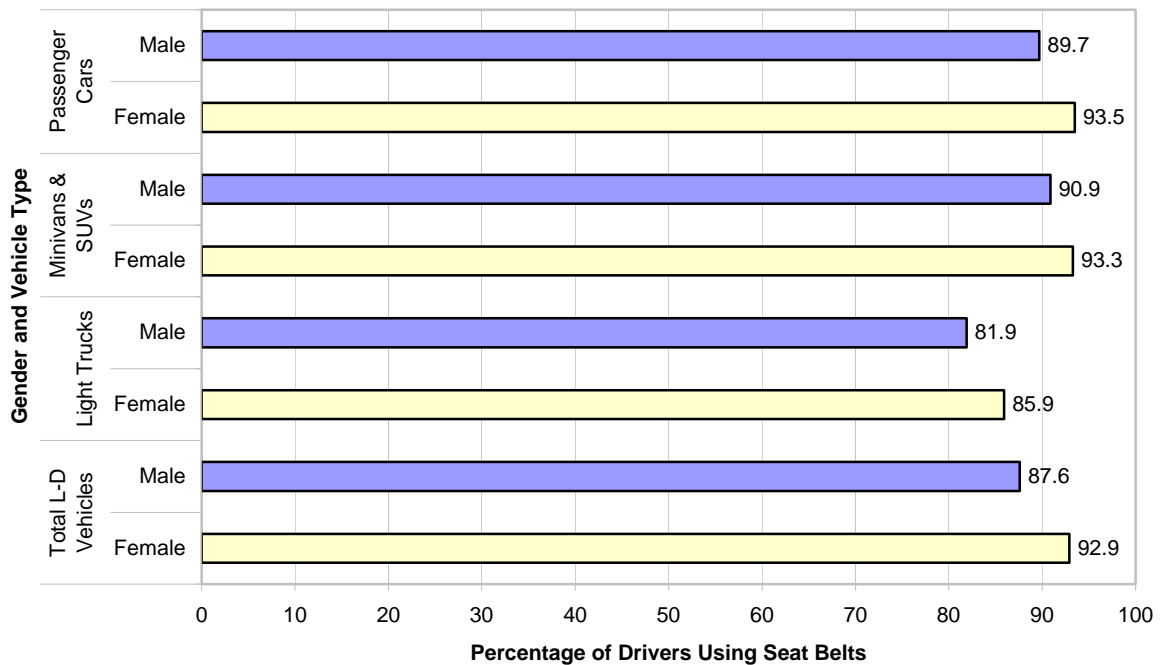


Chart 8 shows that a higher percentage of female drivers wear seat belts (95.5%) than male drivers (92.5%) in urban communities.

- The higher rate of seat belt use by females was consistent across all three vehicle types. The difference ranged from 2.5 percentage points for passenger cars (95.6% for females vs. 93.1% for males) and minivans and SUVs (95.6% for females vs. 93.1% for males) to 3.3 points for light trucks (92.3% for females vs. 89.0% for males).
- Other data from the survey show that the higher rate of seat belt use by females is consistent across all provinces and territories. The differences ranged from 0.2 percentage points in Alberta (92.2% for females vs. 92.0% for males) to 10.0 points in Yukon (90.7% for females vs. 80.7% for males).

Chart 8
Urban Canada Seat Belt Use by Gender of Driver and Vehicle Type - 2007

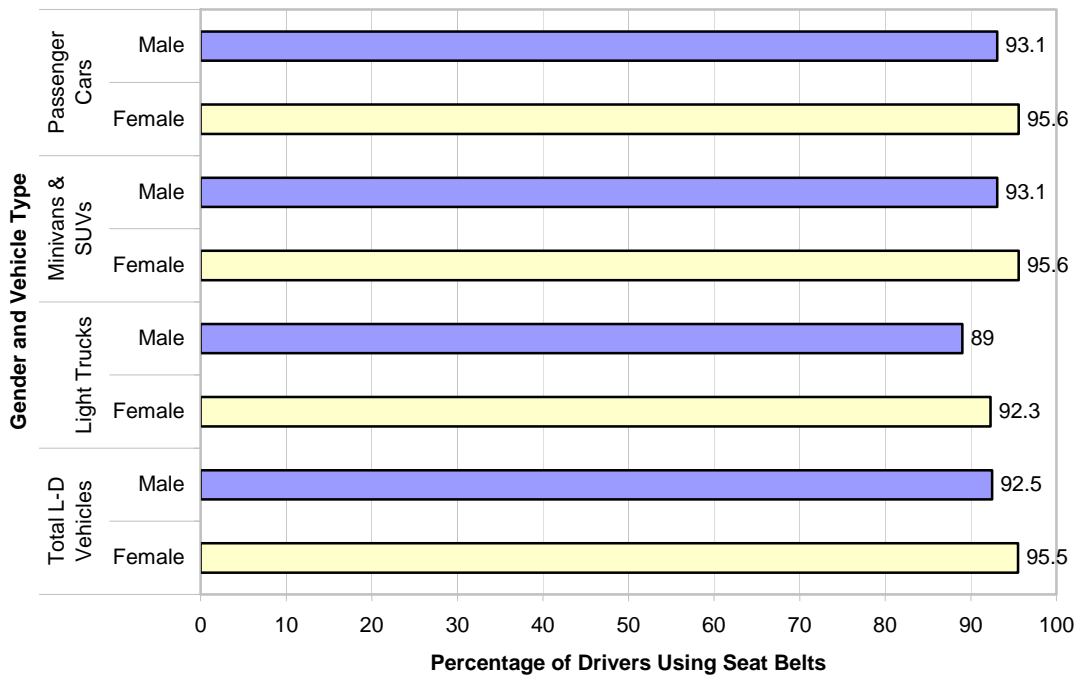
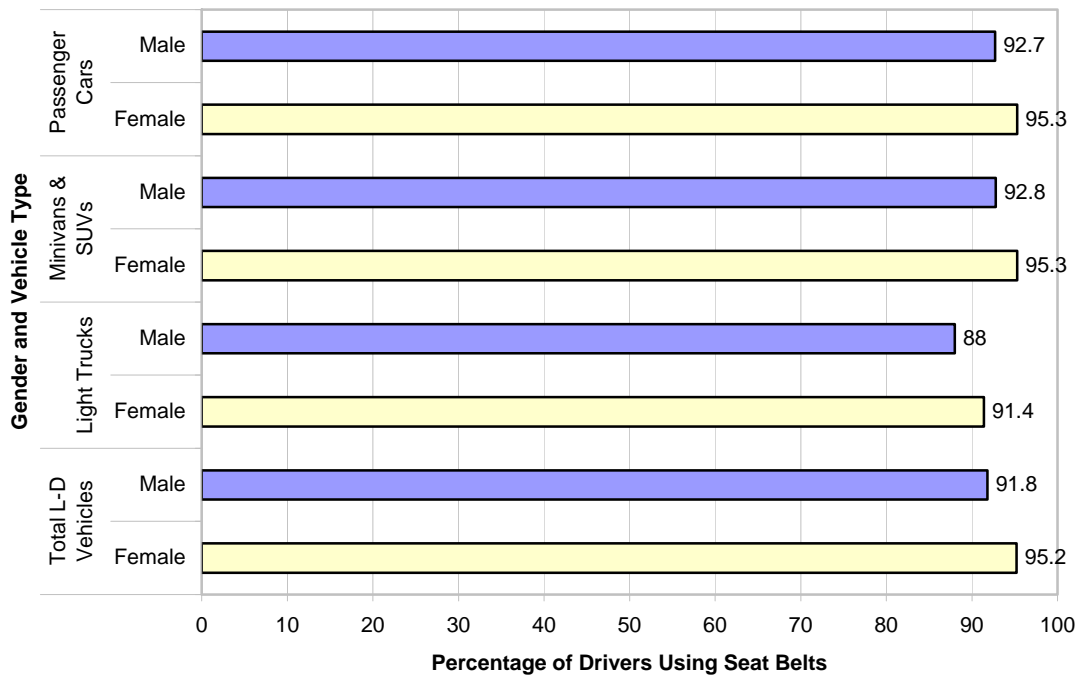


Chart 9 shows that a higher percentage of female drivers wear seat belts (95.2%) than male drivers (91.8%) in Canada.

- The higher rate of seat belt use by females was consistent across all three vehicle types. The difference ranged from 2.5 percentage points for minivans and SUVs (95.3% for females vs. 92.8% for males) to 3.4 points for light trucks (91.4% for females vs. 88.0% for males).
- Other data from the surveys show that the higher rate of seat belt use by females is consistent across all provinces and territories. The difference ranged from 1.1 percentage points in Alberta (92.1% for females vs. 91.0% for males) to 9.8 points in the Yukon (89.2% for females vs. 79.4% for males).

Chart 9
Rural and Urban Canada, Seat Belt Use by Gender of Driver and
Vehicle Type, 2006-2007



Seat Belt Use by Age Group of Driver

Chart 10 shows that the proportion of drivers wearing seat belts in rural communities increases with their age group, from 87.7% of those under 25, to 89.1% of those 25 to 49 and 90.9% of those 50 and older.

- Other data from the survey show that the increased rate of seat belt use with age is generally consistent across the three vehicle types:
 - o For drivers of passenger cars, those 50 and older had a use rate of 92.8% (vs. 88.6% for those under 25 and 91.1% for those 25 to 49).
 - o For drivers of minivans and SUVs, those 50 and older had a use rate of 93.5% (vs. 89.7% for those under 25 and 91.3% for those 25 to 49).
 - o For drivers of light trucks, those 50 and older had a use rate of 83.9% (vs. 77.9% for those under 25 and 82.1% for those 25 to 49).

Chart 10
Rural Canada Seat Belt Use by Age Group of Driver - 2006

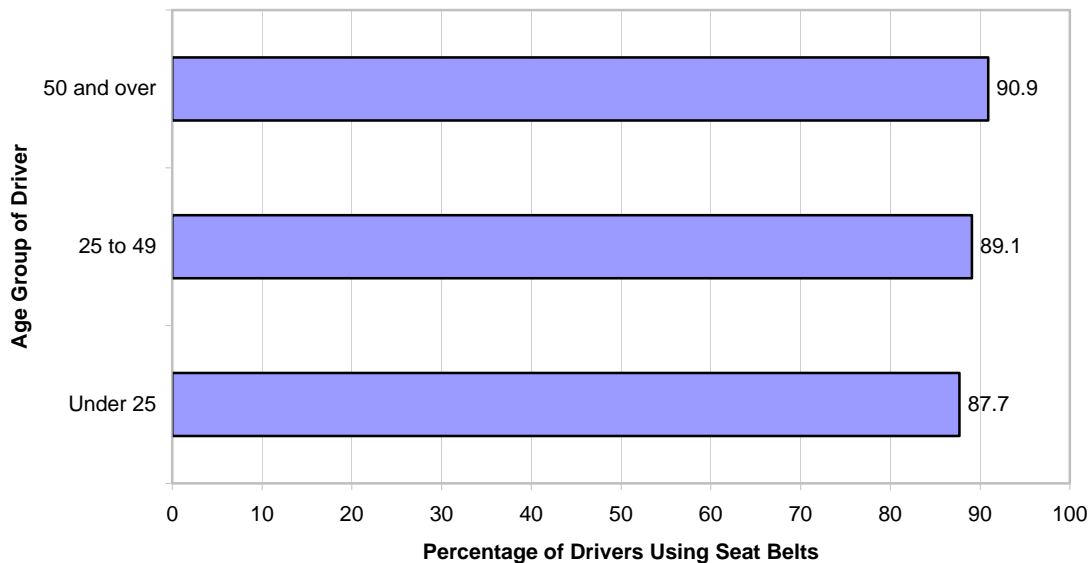


Chart 11 shows that the proportion of drivers wearing seat belts in urban communities increases with age group, from 90.7% of those under 25, to 93.9% of those 25 to 49 and 94.2% of those 50 and older.

- Other data from the survey show that the increased rate of seat belt use with age is generally consistent across the three vehicle types:
 - o For drivers of passenger cars, those 50 and older had a use rate of 95.0% (vs. 91.1% for those under 25 and 94.5% for those 25 to 49).
 - o For drivers of minivans and SUVs, those 50 and older had a use rate of 94.6% (vs. 90.9% for those under 25 and 94.2% for those 25 to 49).
 - o For drivers of light trucks, those 50 and older had a use rate of 90.4% (vs. 83.5% for those under 25 and 89.9% for those 25 to 49).

Chart 11
Urban Canada Seat Belt Use by Age Group of Driver - 2007

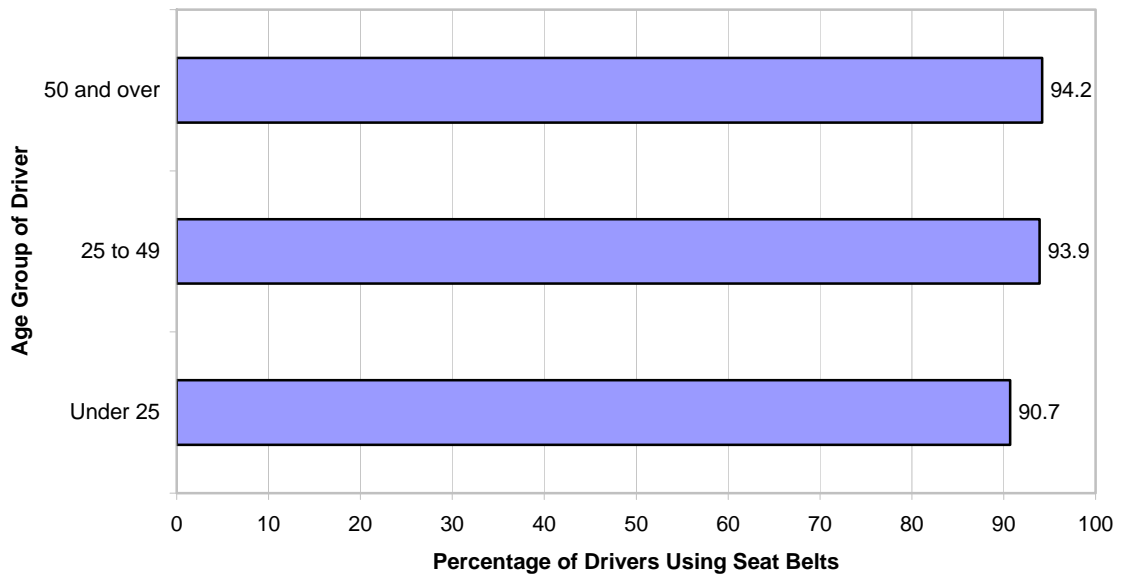


Chart 12 shows that the proportion of drivers wearing seat belts in both rural and urban Canada increases with age group, from 90.3% of those under 25, to 93.3% of those 25 to 49 and 93.8% of those 50 and older.

- Other data from the survey show that the increased rate of seat belt use with age is generally consistent across the three vehicle types:
 - o For drivers of passenger cars, those 50 and older had a use rate of 94.8% (vs. 90.8% for those under 25 and 94.1% for those 25 to 49).
 - o For drivers of minivans and SUVs, those 50 and older had a use rate of 94.5% (vs. 90.8% for those under 25 and 93.9% for those 25 to 49).
 - o For drivers of light trucks, those 50 and older had a use rate of 89.6% (vs. 82.8% for those under 25 and 88.9% for those 25 to 49).

Chart 12
Rural and Urban Canada, Seat Belt Use by Age Group of Driver 2006-2007

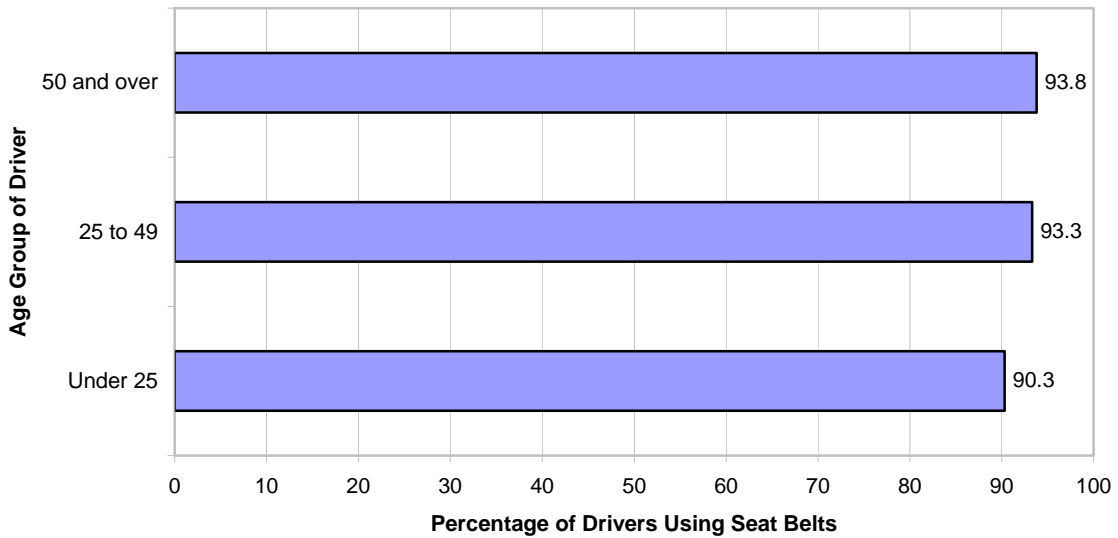
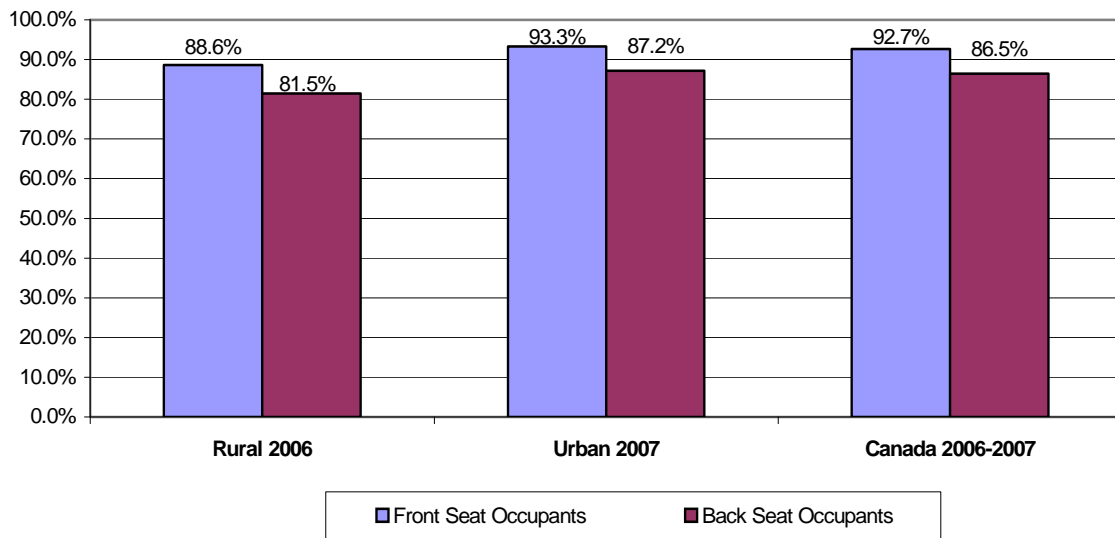


Chart 13 shows the proportion of belted occupants in the front seat and in the back seat of light duty vehicles in Canada. The seat belt use rate is considerably lower for the back seat occupants of light duty vehicles.

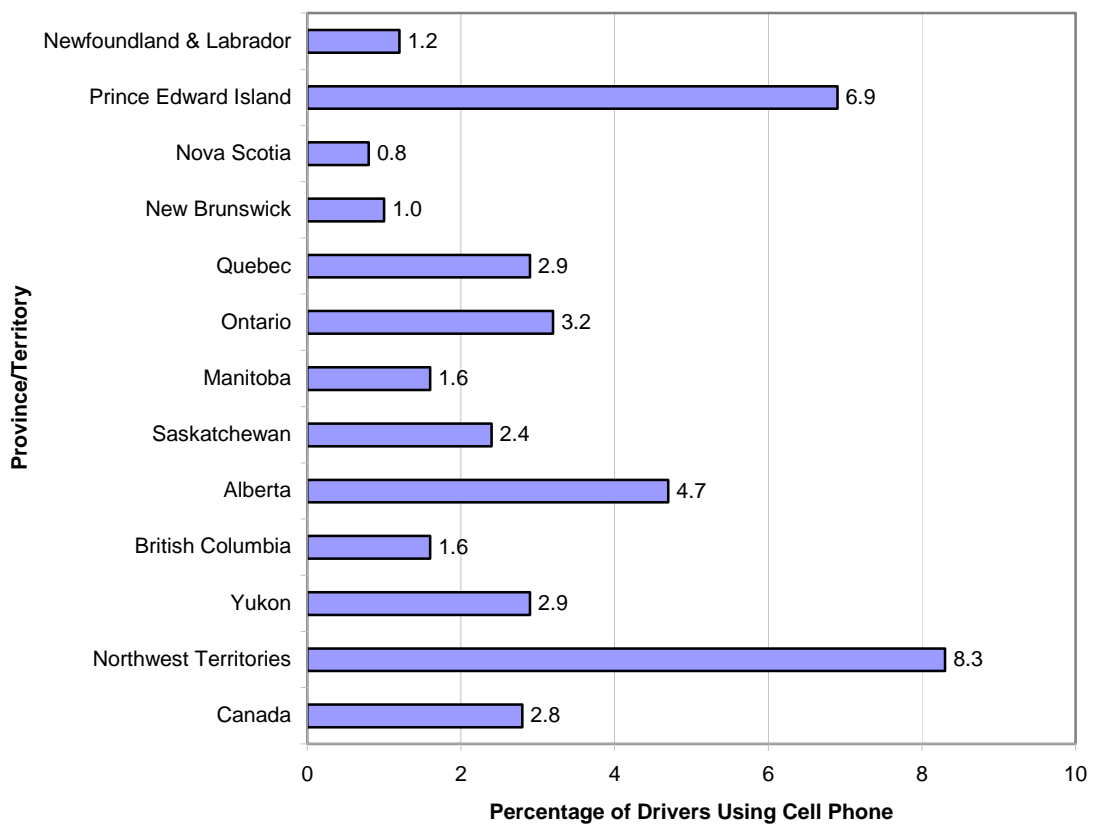
Chart 13
Seat Belt Use for Front and Back Seat Occupants
2006-2007



Driver Cell Phone Use by Jurisdiction

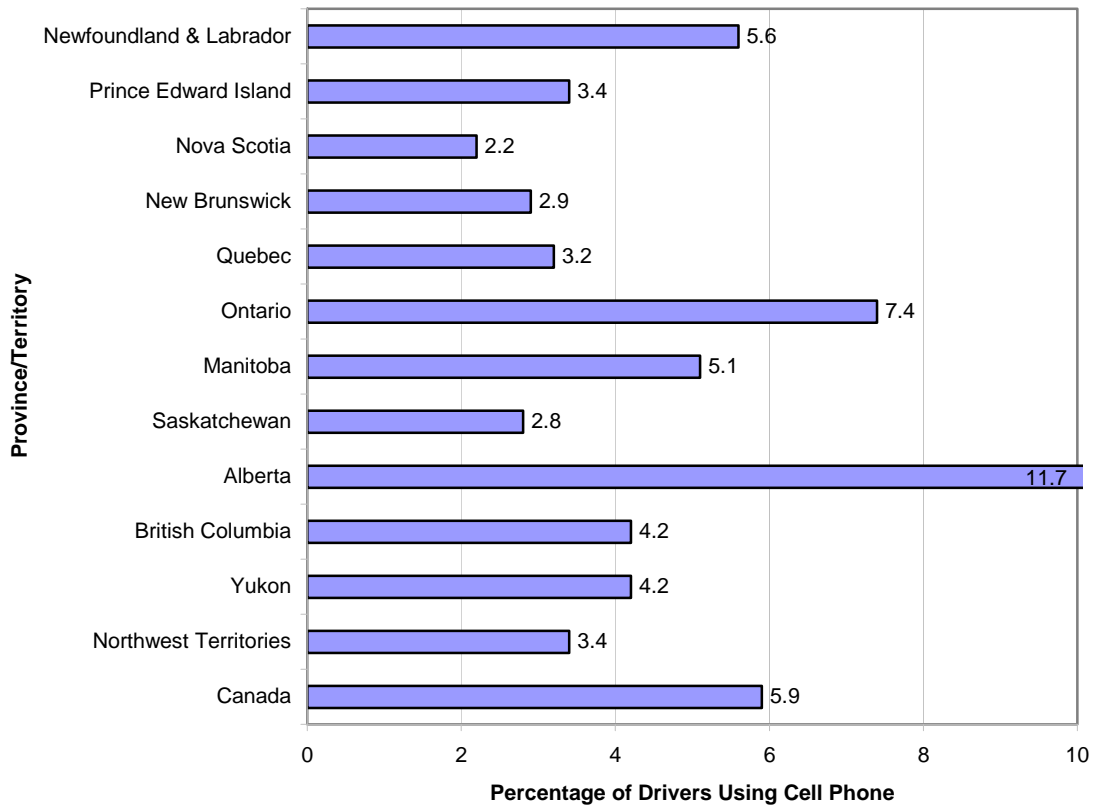
- Chart 14 shows that an estimated 2.8% ($\pm 0.2\%$) of drivers in rural communities were using a cell phone in 2006. Prince Edward Island, Quebec, Ontario, Alberta, the Yukon and the Northwest Territories were at or above the national average. Newfoundland and Labrador, Nova Scotia, New Brunswick, Manitoba, Saskatchewan and British Columbia were below the national average. No data was collected in Nunavut in 2006.

Chart 14
Rural Canada, Driver Cell Phone Use
by Province/Territory - 2006



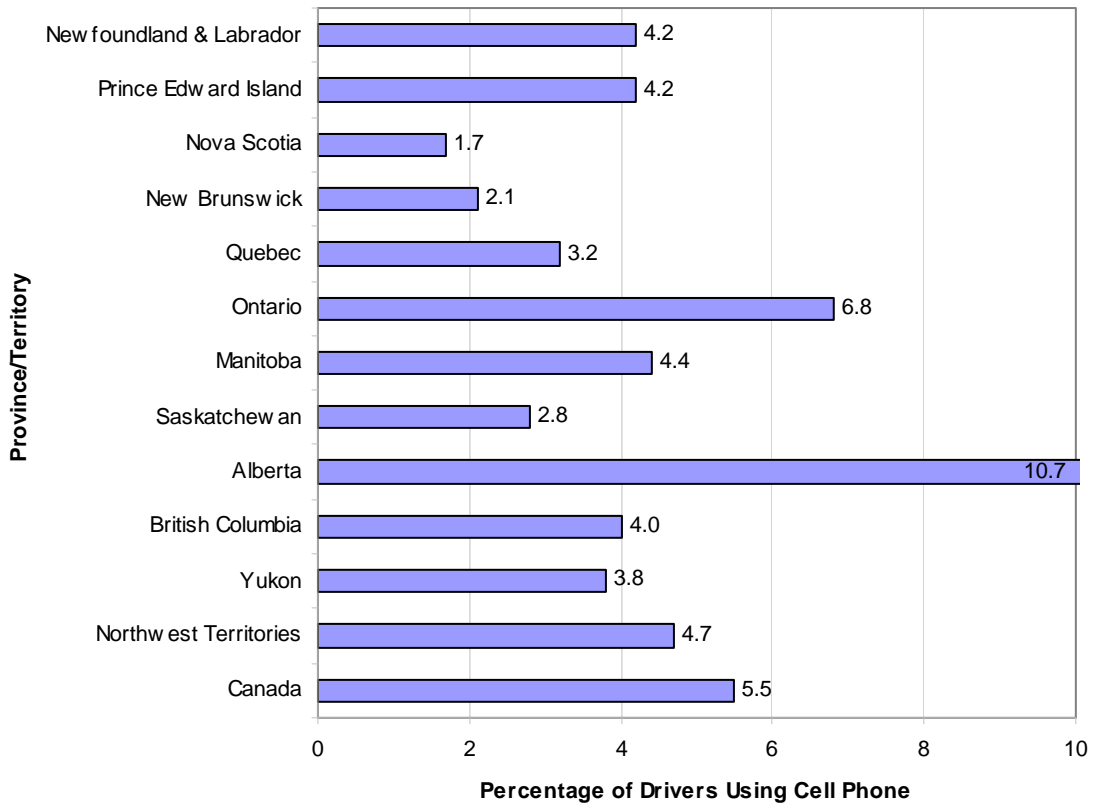
- Chart 15 shows that in 2007 an estimated 5.9% ($\pm 0.4\%$) of drivers in urban communities were using a cell phone. Ontario and Alberta were at or above the national average. Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba, Saskatchewan, British Columbia, Yukon and the Northwest Territories were below the national average.

Chart 15
Urban Canada, Driver Cell Phone Use
by Province/Territory - 2007



- Chart 16 shows that an estimated 5.5% ($\pm 0.3\%$) of drivers in Canada were using a cell phone. Ontario and Alberta were at or above the national average. Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba, Saskatchewan, British Columbia, Yukon and the Northwest Territories were below the national average. No data was collected in Nunavut in 2006.

Chart 16
Rural and Urban Canada, Driver Cell Phone Use
by Province/Territory 2006-2007



CONCLUSION

Road Safety Vision 2010 is targeting a decrease of 30% in the average annual number of road users killed or seriously injured during the 2008–2010 period compared with 1996–2001. Sub-targets include reducing casualties resulting from non-use of restraint systems and decreasing casualties resulting from crashes occurring on rural roadways.

The urban and rural seat belt use surveys summarized here represent one of a number of important Vision 2010 initiatives undertaken by the National Occupant Restraint Program (NORP 2010) Task Force. The results of these surveys will help build a business case for the adoption of measures to increase seat belt use rates in Canada by 2010.

The results suggest that Canada is making some progress toward the 95% target for seat belt use for all occupants of light duty vehicles.

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