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| SENATE INDUSTRY AND TRANSPORTATION | |
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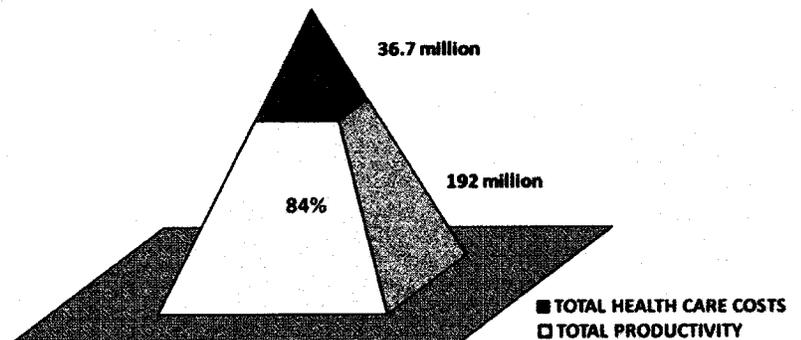
Seat Belt Use and Health Care Costs in Montana

Beth E. Ebel, MD, MPH Sravanthi Parasa, MBBS Christopher Mack, MS

- Each year in Montana, an estimated **887 unbelted** injured vehicle occupants are hospitalized for care. An estimated **819 admissions** might have been prevented if a seat belt had been used.
- Caring for these unbelted Montana patients costs over **\$36.7 million each year in direct inpatient health care costs**, which could have been prevented through seat belt use. These costs result from three sources:
 1. More hospital admissions: **819 individuals** requiring hospital care for preventable injury.
 2. Higher costs per hospital stay: On average, an unbelted occupant had a longer hospital stay (**2.3 days longer**), required more intensive care (**2.7 days longer**) and accrued significantly higher hospital charges of **\$52,993** relative to the average belted occupant **\$36,420**.
- Uninsured or Medicaid covered unbelted occupants **cost the state of Montana over \$14 million annually for their hospital care of their preventable injuries.**
- Among Montana crash occupants who required hospital admission following a motor vehicle crash, **58% were not belted, and 42% were belted.**
- Over one-third (**36%**) of unrestrained occupants have no insurance. Their hospital costs ultimately paid for by the state of Montana.
- From 2004 through 2006 there were **613 deaths** among motor vehicle occupants, of whom **432 (71%) were unrestrained.**
- The current seat belt use in Montana is 80%. An increase to 90% will save a total of **\$18.7 million, and will save Montana state government \$7.2 million in health care costs.**

| Costs Saved (millions) | Projected rate 90% | Projected rate 95% | 100% belt use |
|------------------------|--------------------|--------------------|---------------|
| Total Health Costs | \$18.7 mn | \$27.7 mn | \$36.7 mn |
| Montana state budget | \$ 7.2 mn | \$ 10.6 mn | \$14.0 mn |

Lifetime costs of unbelted motor vehicle crash injuries in Montana





Seat Belt Use and Health Care Costs in Montana Legislative Testimony

Beth E. Ebel, MD, MPH

Good afternoon, Mr. Chairman, esteemed Committee Members, thank you for your consideration of Senate Bill 237, which proposes the adoption of a primary enforcement seat belt law in Montana.

INTRO: My name is Dr. Beth Ebel (EBEL), pediatrician and director of the Harborview Injury Prevention & Research Center at Harborview Medical Center in Seattle. It is also my privilege to care for seriously injured trauma patients from our 4 state region, including patients from Montana, when they are flown to Harborview for care.

Seat belt use is, of course, already required in Montana, and so this bill proposes a change only in the enforcement of the existing seat belt law.

The question before you today is to decide whether all Montanans should continue to pay preventable health care costs for persons who do not wear their seat belts.

RESEARCH FINDINGS: I would like to share the results of our research, examining the health care costs for unrestrained motor vehicle occupants in Montana, and briefly go over our main findings. These findings are also outlined in a one page handout which should be available to each of you and your staff. Using data from 2004-2006, we estimated the number of injured Montanans using Montana police crash reports, and determined seat belt use and health care costs using data from the Montana trauma registry, and from Montana patients transferred to Harborview following a motor vehicle crash.

Our study addressed three main questions:

1. First, what preventable costs do Montanans taxpayers incur each year to pay for injured, unbelted occupants?
 2. Second, what is the impact of primary enforcement on seat belt use?
 3. Third, what savings can be expected with adoption of a primary enforcement seat belt law in Montana?
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1. What do Montanans pay to subsidize injured, unbelted occupants?

- Motor vehicle crashes are common, and are the leading cause of injury death. In 2007, 217 Montanans were killed in car crashes. Three out of four were not wearing seatbelts (158 of 217, or 73%).

- Each year in Montana, an estimated **887 unbelted** injured vehicle occupants are hospitalized for care (58% of all admissions following a crash). An estimated **819** admissions might have been prevented if a seat belt had been used.
- **Caring for unbelted patients costs over \$36.7 million each year in direct inpatient health care costs, which could have been prevented through seat belt use.**
- **Health care for unbelted occupants costs Montana state government \$14 million each year in preventable costs.**
- These costs result from:
 - (1) More hospital admissions
 - (2) More emergency department costs.
 - (3) Higher costs per hospital stay: On average, an unbelted occupant had a longer hospital stay (**2.3 days longer**), required more intensive care (**2.7 days longer**) and accrued significantly higher hospital charges of **\$52,993** relative to the average belted occupant **\$36,420**.
 - (4) Unbelted occupants more likely to be uninsured. Over one-third (36%) of unbelted occupants have no health insurance, with Montana picking up the costs.

2. Enforcing existing seat belt laws is expected to raise seat belt use by 10 to 15 percentage points.

- States changing from secondary to primary laws had increased seat belt use, ranging from 6 to 18 percentage points.
- 15% difference in seat belt use comparing states with primary to secondary enforcement laws
- Seat belt use increased even in highest risk drivers – those most likely to crash (from 54% -> 92% in BAC > .1 in CA drivers at night)

3. Enforcing existing seat belt laws saves lives, reduces injury, and saves money for all Montanans.

- Current seat belt use in Montana is 79.3%. An increase to 90% will save a total of **\$18.7 million, and will save Montana state tax payers \$7.2 million** in health care costs.
- These savings in health costs are only the tip of the iceberg. Using national data, lifetime costs of unbelted crash injuries in Montana will cost an additional \$192 million in lost productivity and potential.

SUMMARY:

At first consideration, it may seem that wearing a seat belt is an individual decision, and an individual choice. Those of us who work in trauma centers know better: an unbuckled occupant hurts many others besides himself: this year I have cared for injured children newly orphaned when mom was unbuckled in a crash, and a father with serious brain damage, leaving his wife to care for their 2 year old daughter alone.

The cost of unbuckled passengers, though, is not just an emotional tax on families. When a unbelted person is injured, he or she imposes high financial costs, nearly all of which are paid for by others. We all pay for the decision of a few not to wear a seat belt. We subsidize unbelted occupants through our higher insurance premiums, paying higher federal taxes, and paying higher state taxes. Montana taxpayers pay 37 million each year to subsidize the health care costs of injured, unbelted occupants, \$14 million of which comes from state budgets.

The question for you today is to decide whether all Montanans should continue to subsidize people who do not to wear their seat belts. Thank you.

| Costs Saved (millions) | Projected rate 90% | Projected rate 95% | 100% belt use |
|------------------------|--------------------|--------------------|---------------|
| Total Health Costs | \$18.7 mn | \$27.7 mn | \$36.7 mn |
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Lifetime costs of unbelted motor vehicle crash injuries in Montana

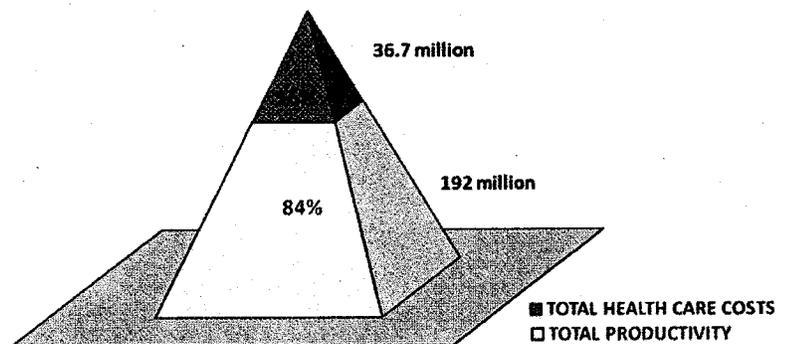


Table 2: Seat Belt Use, hospital charges, average length of stay, and primary payer for hospitalized motor vehicle occupants admitted for care at Montana trauma centers* or transferred to a Level I Trauma Center, 2006.

| | Not belted (n = 2663) | Belted (n = 1901) | Difference between unbelted and belted patients |
|--|----------------------------------|------------------------------|--|
| Seat Belt Use (%) | 58.4% | 41.7% | |
| Average hospital charge (\$ 2005) | \$52,993 | \$36,420 | \$16,573 |
| Average length of hospital stay (days) | 8.0 days | 5.7 days | 2.3 days |
| Average length of intensive care unit stay (days) | 6.2 days | 3.5 days | 2.7 days |

Insurance Status

| | | |
|----------------------------------|--------------|--------------|
| Privately insured | 40.4% | 55.5% |
| Medicare | 16.1% | 11.8% |
| Medicaid | 7.3% | 7.0% |
| Self-Pay or uninsured | 36.1% | 25.7% |