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Testimony of Joyce C. Pressley, PhD, MPH
Columbia University Center for Injury Science and Prevention (CCISP)
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Good morning, Chairs Krueger and Weinstein and members of the Senate and Assembly. I am an Associate Professor of Epidemiology and Health Policy and Management at Columbia University's CDC-funded Injury Center. Over the last several years, I have been engaged in several research projects on rear seat motor vehicle safety across the pediatric and adult age span. I am an active member of the Transportation Research Board (TRB) at the National Academies of Science, Engineering and Medicine in Washington, DC where I chair the Occupant Protection Committee and serve as a member of the Alcohol and Drug Committee.

I would like to applaud recent actions of this body for their improving the safety of infants and toddlers aged 0-2 years and would like to share the scientific evidence related to rear seat motor vehicle safety for teens and adults. Currently, notable gaps exist in NY State seat belt laws. These gaps are associated with increased injury, death, disability and increased consumption of scarce public resources, including public dollars spent on emergency department, inpatient hospital and rehabilitation care costs encountered due to riding unrestrained in a motor vehicle (MV) on a NYS roadway.

Gaps in coverage exist primarily on two levels, including exemptions for: 1) children traveling rear-seated in taxis, vehicles for hire, and large passenger vehicles; and 2) teens and adults aged 16 years and older traveling rear-seated in four-wheeled passenger vehicles. There is widespread belief that after childhood, rear-seated motor vehicle occupants do not need to wear seatbelts to travel safely. This belief is reflected in our NY State seat belt laws.

Our previous national work (1) examining the presence and strength of enforcement of seatbelt laws for rear-seated teens involved in a fatal collision on a U.S. roadway found the presence of a primary enforced rear-seat seatbelt law was associated with significantly higher belt use and lower mortality.

- Nationally, 77.0% of the rear-seated teens who died in a MV crash were unbelted.
- Only half (50.8%) of rear-seated teens involved in a fatal collision were restrained. This varied by age from just over 40% of 18 to 19-year-olds to approximately 66% 13-14-year-olds.
- Rear-seated teens covered by a primary enforced law were 60% more likely to be belted and teens covered by a secondary law 33% more likely to be belted.
- Under current NY State law, a teen can ride legally unbelted in the rear seat of a vehicle being driven by a fully licensed driver beginning at age 16.

A NY State Department of Health fact sheet (2) titled "Using seatbelts in the rear seat saves lives, reduces injuries, and saves money!" notes that:

Every month, an average of 116 rear-seated passengers in New York State, 16 years of age and older, who did not wear a seatbelt were injured severely enough to require hospital treatment; nine of whom sustained injuries serious enough to require inpatient hospitalization.

- Nearly 1,400 *unbelted* rear-seated passengers aged 16 years of age and older are treated annually in a hospital in New York State for their injuries.
- Treatment of these injuries in *unrestrained* rear-seated passengers resulted in approximately \$13 million in emergency department and hospitalization charges. More than a half million of this was charged to public funds.
- Among backseat passengers who were involved in a crash, those who were unrestrained were over four times more likely to require inpatient hospitalization than those who buckled up.
- Unrestrained motorists involved in a crash are approximately twice as likely to experience a traumatic brain injury compared to those wearing a seatbelts.

Preliminary analyses (3) of recent rear-seated teens and adults aged 18 years and older show that:

- Unbelted rear-seated injured passengers were nearly twice as likely to be covered by a governmental insurance or to be uninsured/self-insured than belted rear-seated passengers.
- Unrestrained NYS teens and adults were 4 times more likely to be severely injured than those who were restrained.
- Ninety percent (9 of 10) of rear-seated teen and adult deaths were unrestrained.
- Approximately one-fifth (21.5%) were moderately to severely injured or died compared to 6.1% of restrained rear-seated passengers.
- Unbelted lengths of hospital stay were nearly double that of belted passengers (7.55 vs. 4.17 days)
- More than 95% of ejections were unrestrained; ejection was associated with a 7-fold increase in median medical charges.

References

1. Pressley JC, Gatollari HJ, Liu C. Rear seat belt laws and restraint use in rear-seated teen passengers traveling in passenger vehicles involved in a fatal collision on a U.S. roadway. *J Trauma and Acute Care Surgery* 2016;81:S36-43.
2. New York State Department of Health Fact Sheet, *Using seatbelts in the rear seat saves lives, reduces injuries, and saves money!*.
3. Unpublished analyses, NYS Crash Outcomes Data Evaluation System (CODES), 2016-2017.