# MEDCHI, THE MARYLAND STATE MEDICAL SOCIETY HOUSE OF DELEGATES

Resolution 14-18

INTRODUCED BY:	Medical Student Section
	MedChi Public Health Committee
SUBJECT:	Decrease Adolescent Mortality Through More Comprehensive Graduated Driver Licensing Programs

Whereas, Motor vehicle crashes are the leading causes of death for teenagers in the United States (16-19);<sup>1</sup> and

Whereas, Teen drivers ages 16-19 are three times more likely to be involved in a fatal accident than drivers over the age of 20;<sup>2</sup> and

Whereas, Teenagers (age 16-19) involved in fatal motor vehicle crashes are twice as likely to bear significant responsibility for their crash compared to similar fatal crashes of older counterparts;<sup>3,4</sup> and

Whereas, Newly licensed teenage drivers are twice as likely to crash in their first month of driving than they are after a year of experience, and most incidents tend to involve errors in judgement or lack of experience;<sup>5</sup> and

Whereas, Teenage drivers are more likely than their older counterparts to not recognize hazardous conditions or make critical decision errors while driving;<sup>6,7</sup> and

Whereas, The risk of fatal crashes amongst teenage drivers increases with the number of teen passengers, and said crashes are more likely to be in single vehicle-crashes;<sup>8,9,10</sup> and

<sup>&</sup>lt;sup>1</sup>WISQARS Fatal Injury Reports. Centers for Disease Control and Prevention. https://webappa.cdc.gov/sasweb/ncipc/mortrate.html. Published February 19, 2017. Accessed March 26, 2018.

<sup>&</sup>lt;sup>2</sup> Insurance Institute for HIghway Safety. Fatality Facts: Teenagers. http://www.iihs.org/iihs/topics/t/teenagers/fatalityfacts/teenagers. Accessed March 27, 2018.

<sup>&</sup>lt;sup>3</sup> Gonzales MM. Student Drivers: A Study of Fatal Motor Vehicle Crashes Involving Drivers 16 to 17 Years Old. *Academic Emergency Medicine*. 2004;11(5):443-443. doi:10.1197/j.aem.2004.02.033.

<sup>&</sup>lt;sup>4</sup> Eustace D, Wei H. The Role of Driver Age and Gender in Motor Vehicle Fatal Crashes. *Journal of Transportation Safety & Security*. 2010;2(1):28-44. doi:10.1080/19439961003590811.

<sup>&</sup>lt;sup>5</sup> Foss RD, Martell CA, Goodwin AH, Obrien NP. Measuring Changes in Teenage Driver Crash Characteristics During the Early Months of Driving. *PsycEXTRA Dataset*. doi:10.1037/e554022012-001.

<sup>&</sup>lt;sup>6</sup> Jonah BA, Dawson NE. Youth and risk: age differences in risky driving, risk perception, and risk utility. *Alcohol, Drugs & Driving* 1987;3:13–29.

<sup>&</sup>lt;sup>7</sup> McDonald CC, Curry AE, Kandadai V, et. al. Comparison of teen and adult driver crash scenarios in a nationally representative sample of serious crashes. *Accident Analysis & Prevention* 2014;72:302-308.

<sup>&</sup>lt;sup>8</sup> Chen L-H. Carrying Passengers as a Risk Factor for Crashes Fatal to 16- and 17-Year-Old Drivers. *JAMA*. 2000;283(12):1578. doi:10.1001/jama.283.12.1578.

<sup>&</sup>lt;sup>9</sup> Preusser DF, Ferguson SA, Williams AF. The effect of teenage passengers on the fatal crash risk of teenage drivers. *Accident Analysis & Prevention*. 1998;30(2):217-222. doi:10.1016/s0001-4575(97)00081-x.

<sup>&</sup>lt;sup>10</sup> Ouimet MC, Pradhan AK, Brooks-Russell A, et. al. Young drivers and their passengers: a systematic review of epidemiological studies on crash risk. *Journal of Adolescent Health* 2015; 57 (1 Suppl):S24-35

Whereas, Graduated Driver Licensing (GDL) programs have been associated with a substantial reduction in fatal crash rates among teenage drivers;<sup>11-12</sup> and

Whereas, All 50 states and DC have adopted some form of GDL program, but they vary quite drastically with respect to their specific requirements;<sup>13</sup> and

Whereas, The NIH and United States Department of Transportation have found that the most effective legislation includes at least 5 of the following seven elements, "A minimum age of 16 for a learner's permit, a mandatory waiting period of at least six months before a driver can apply for an intermediate license, a requirement for 50 to 100 hours of supervised driving before testing for an intermediate license, a minimum age of 17 for an intermediate license, restrictions on nighttime driving, a limit on the number of teenaged passengers allowed in the car, and a minimum age of 18 for a full license;"<sup>14</sup> and

Whereas, As of March 2018 no states have adopted all of the best practices for state GDL laws proposed by the Insurance Institute for Highway Safety who estimate such measures could save over 500 lives a year;<sup>15</sup> and

Whereas, Research has shown that the most influential components of varying Graduated Driving Licensing programs in lowering the risk of fatal teen crashes are a delayed permit and licensing age, more required practice hours, nighttime restrictions, and teenage passenger restrictions;<sup>16-17</sup> therefor be it

Resolved, That MedChi ask our AMA to support the standardization and implementation of more comprehensive Graduated Driver Licensing programs including but not limited to increasing permit and licensing age requirements, mandatory minimum training hours, and nighttime and teenage passenger restrictions

As adopted by the House of Delegates at its meeting on April 29, 2018.

### **Relevant AMA and AMA-MSS Policy:**

#### AMA

Licensing People to Drive H-15.972

It is the policy of the AMA (1) to encourage research into the many components and activities of the driving task and into the development of more accurate testing devices;

<sup>&</sup>lt;sup>11</sup> Ulmer RG, Preusser DF, Williams AF, Ferguson SA, Farmer CM. Effect of Florida's graduated licensing program on the crash rate of teenage drivers. *Accident Analysis & Prevention*. 2000;32(4):527-532. doi:10.1016/s0001-4575(99)00074-3.

<sup>&</sup>lt;sup>12</sup> Shope JT, Molnar LJ. Graduated driver licensing in the United States: evaluation results from the early programs. *Journal of Safety Research*. 2003;34(1):63-69. doi:10.1016/s0022-4375(02)00080-4.

<sup>&</sup>lt;sup>13</sup> Teen and Novice Drivers. Governor's Highway Safety Association. https://www.ghsa.org/state-laws/issues/teen and novice drivers. Accessed March 26, 2018.

<sup>&</sup>lt;sup>14</sup> Graduated drivers licensing programs reduce fatal teen crashes. National Institutes of Health.

https://www.nih.gov/news-events/news-releases/graduated-drivers-licensing-programs-reduce-fatal-teen-crashes. Published September 18, 2015. Accessed March 26, 2018.

<sup>&</sup>lt;sup>15</sup> Teenagers: Driving Carries Extra Risk for Them. Insurance Institute for Highway Safety.

http://www.iihs.org/iihs/topics/laws/gdl\_calculator?topicName=teenagers. Accessed March 26, 2018.

<sup>&</sup>lt;sup>16</sup> Lyon JD, Pan R, Li J. National evaluation of the effect of graduated driver licensing laws on teenager fatality and injury crashes. *Journal of Safety Research*. 2012;43(1):29-37. doi:10.1016/j.jsr.2011.10.007.

<sup>&</sup>lt;sup>17</sup> Chen L-H, Baker SP, Li G. Graduated Driver Licensing Programs and Fatal Crashes of 16-Year-Old Drivers: A National Evaluation. *Pediatrics*. 2006;118(1):56-62. doi:10.1542/peds.2005-2281.

(2) that physicians continue to warn patients about the possibility of untoward side effects from medications, particularly those that might impair driving;

(3) that the physician attempt to give competent advice about the wisdom of the patient's driving, while keeping in mind the obligation to protect the community and obey the law; and

(4) that the physician, if uncertain about the patient's ability to drive, consider recommending that the state licensing agency arrange a driving test.

#### **Older Driver Safety H-15.954**

(1) Our AMA recognizes that the safety of older drivers is a growing public health concern that is best addressed through multi-sector efforts to optimize vehicle design, the driving environment, and the individual's driving capabilities, and:

(a) believes that because physicians play an essential role in helping patients slow their rate of functional decline, physicians should increase their awareness of the medical conditions, medications, and functional deficits that may impair an individual's driving performance, and counsel and manage their patients accordingly;

(b) encourages physicians to familiarize themselves with driver assessment and rehabilitation options, refer their patients to such programs whenever appropriate, and defer recommendations on permanent driving cessation until establishing that a patient's driving safety cannot be maintained through medical interventions or driver rehabilitation; (c) urges physicians to know and adhere to their state's reporting statutes for medically at-risk drivers; and (d) encourages continued scientific investigation into strategies for the assessment and management of driving safety in the clinical setting.

(2) Our AMA encourages physicians to use the Physician's Guide to Assessing and Counseling Older Drivers as an educational tool to assist them in helping their patients.

#### Medical Advisory Boards in Driver Licensing H-15.995

Our AMA (1) endorses the establishment of state motor vehicle department medical advisory boards to improve licensure of vehicle operators and to reduce incidence of injury and death and (2) urges state medical associations to encourage establishment of such boards and to work actively with them.

#### Automobile-Related Injuries H-15.990

Our AMA:

(1) Encourages physicians to increase their awareness of the still largely overlooked problem of motor vehicle-related injuries and to discuss with their patients how they can avoid or prevent such injuries.

(2) Calls for the establishment of a reduction in motor vehicle injuries as a national goal.

(3) Reaffirms its support for the development of effective passive crash protection systems for occupants of motor vehicles.

(4) Strongly endorses and encourages the use of active restraints, such as lapbelts, lapbelt-shoulder harnesses, and those that are approved for children.

(5) Encourages motor vehicle manufacturers to develop automobiles with stronger passenger compartments that would more effectively protect occupants, and with interiors having fewer protuberant objects and hard surfaces that could cause injuries in crashes.

(6) Continues to support state and federal legislative efforts to strengthen drunk driving laws and their enforcement.

(7) Encourages national and federal organizations, such as the National Institutes of Health, the National Highway Transportation Safety Agency, and the National Science Foundation, and appropriate private groups, to devote more of their resources to research concerning vehicle-related injuries and their prevention.

(8) Urges states to review their standards for the construction and maintenance of roads and highways. The standards should be based on current engineering knowledge and good practice, particularly as related to use of skid-resistant surfaces; shoulder grading; drivers' lines of vision; removal of obstructions; and separation of opposing traffic streams.(9) Encourages state and local officials to monitor streets, roads, and highways to identify sites with disproportionate risks of crashes, in order to take appropriate remedial actions.

(10) Encourages continued study of the effect of increasing the legal age at which young persons may drink alcoholic beverages and supports increased study of behavioral factors in crashes, such as those relating to education, training and driving experience; school, family and work problems; aggression; depression and personality disorders; use of drugs; and criminal behavior.

(11) Believes that, before the adoption of passive crash protection systems and devices to reduce motor vehicle injuries, industry and government demonstrate through field studies that such systems and devices are effective, safe, cost-effective and acceptable to drivers.

(12) Supports the use of legal and constitutional sobriety checkpoints to deter driving following alcohol consumption.

(13) Will work with interested state medical societies to pursue legislation to overturn bans on the use of sobriety checkpoints.

## Fatigue, Sleep Disorders, and Motor Vehicle Crashes H-15.958

Our AMA: (1) defines sleepiness behind the wheel as a major public health issue and encourage a national public education campaign by appropriate federal agencies and relevant advocacy groups;

(2) recommends that the National Institutes of Health and other appropriate organizations support research projects to provide more accurate data on the prevalence of sleep-related disorders in the general population and in motor vehicle drivers, and provide information on the consequences and natural history of such conditions.

(3) recommends that the U.S. Department of Transportation (DOT) and other responsible agencies continue studies on the occurrence of highway crashes and other adverse occurrences in transportation that involve reduced operator alertness and sleep.

(4) encourages continued collaboration between the DOT and the transportation industry to support research projects for the devising and effectiveness-testing of appropriate countermeasures against driver fatigue, including technologies for motor vehicles and the highway environment.

(5) urges responsible federal agencies to improve enforcement of existing regulations for truck driver work periods and consecutive working hours and increase awareness of the hazards of driving while fatigued. If changes to these regulations are proposed on a medical basis, they should be justified by the findings of rigorous studies and the judgments of persons who are knowledgeable in ergonomics, occupational medicine, and industrial psychology. (6) recommends that physicians: (a) become knowledgeable about the diagnosis and management of sleep-related disorders; (b) investigate patient symptoms of drowsiness, wakefulness, and fatigue by inquiring about sleep and work habits and other predisposing factors when compiling patient histories; (c) inform patients about the personal and societal hazards of driving or working while fatigued and advise patients about measures they can take to prevent fatigue-related and other unintended injuries; (d) advise patients about possible medication-related effects that may impair their ability to safely operate a motor vehicle or other machinery; (e) inquire whether sleepiness and fatigue could be contributing factors in motor vehicle-related and other unintended injuries; and (f) become familiar with the laws and regulations concerning drivers and highway safety in the state(s) where they practice.

(7) encourages all state medical associations to promote the incorporation of an educational component on the dangers of driving while sleepy in all drivers education classes (for all age groups) in each state.

(8) recommends that guidelines be developed for the licensing of commercial and private drivers with sleep-related and other medical disorders according to the extent to which persons afflicted with such disorders experience crashes and injuries.

(9) reiterates its support for physicians' use of E-codes in completing emergency department and hospital records, and urges collaboration among appropriate government agencies and medical and public health organizations to improve state and national injury surveillance systems and more accurately determine the relationship of fatigue and sleep disorders to motor vehicle crashes and other unintended injuries.

#### **Options for Improving Motorcycle Safety D-15.999**

Our AMA: (1) encourages the National Highway Traffic Safety Administration to work with medical and public health organizations, national motorcycle rider organizations, state motor vehicle licensing agencies, law enforcement officials, and the motorcycle industry to develop a comprehensive national motorcycle safety plan that addresses rider education, training, and licensing; use of motorcycle helmets and other protective gear; public awareness of motorcycles; alcohol use among motorcyclists and other motor vehicle drivers; measures to increase the visibility of motorcyclists and motorcycles to other drivers; engineering and design of motorcycles and highway environments; and research to determine the effectiveness of current and proposed safety measures; and

(2) encourages physicians to (a) be aware of motorcycle risks and safety measures and (b) counsel their patients who ride motorcycles to wear appropriate protective gear and helmets that meet federal safety standards, receive appropriate training in the safe operation of their motorcycle, comply with state licensing laws, and avoid riding a motorcycle while under the influence of alcohol and other drugs.

Automatic (i.e., Passive) Restraints to Prevent Injuries and Deaths from Motor Vehicle Accidents H-15.986 The AMA (1) supports legislation to promote availability of effective seat belts in school buses in the U.S.; and (2) supports legislative action to promote availability of effective seat belts in all motor vehicles in public use (e.g., public and private buses, taxicabs, and any other vehicles carrying passengers).

### Motor Vehicle Accidents H-15.992

Our AMA (1) recognizes motor vehicle-related trauma as a major public health problem, the resolution of which requires a leadership role by physicians in concert with safety experts; and (2) strongly

encourages other medical and health care organizations, as well as departments of health and transportation, to endorse the concept of motor vehicle related trauma as a public health problem, thereby lending its treatment to traditional public health measures.

## AMA-MSS

### 370.012MSS Organ Donation Education Programs in Driver Training Programs

AMA-MSS will ask the AMA to encourage all states to include organ and tissue donation education in pre-licensing and drivers training programs.

### 15.001MSS State Motorcycle Helmet Laws

Our AMA-MSS will ask the AMA to: (1) endorse the concept of legislative measures to require the use of helmets when riding or driving a motorcycle; (2) urge constituent societies to support the enactment or preservation of state motorcycle helmet laws; and (3) join, when requested, with constituent societies to support the enactment or preservation of state motorcycle helmet laws.

### 15.003MSS Mandatory Seat Belt Utilization Laws

AMA-MSS will ask the AMA to support mandatory seat belt utilization laws, which do not simultaneously relieve automobile manufacturers of their responsibility to install passive restraints. (AMA Sub Res 133, A-85, **15.004MSS Hazards of All Terrain Vehicles**: AMA-MSS will ask the AMA to support increased safety standards for the operation of all terrain vehicles.

### 15.008MSS Advocacy of a Highway-Rail Crossing Safety Program

AMA-MSS supports programs set forth by the United States Department of Transportation – Federal Railroad Administration to ensure the safety at highway – rail crossings.

### 15.009MSS Seatbelt Use in Young Drivers and Passengers

AMA-MSS will ask the AMA to urge physicians to take an active stance with their young patients on the importance of safety in motor vehicles through routine questioning regarding passenger seat belt use during every history and physical exam.

### 15.010MSS Seat Belt Compliance in Emergency Vehicle Patient Compartments

AMA-MSS will ask the AMA to collaborate with national emergency medicine and emergency medical services organizations to develop educational resources and training for employees regarding seat belt usage in the patient compartments of emergency vehicles; and (2) support the amendment of state seat belt laws with blanket exemptions for emergency medical services personnel such that these laws provide exemptions only when actively involved in patient care.