

**Senate Bill 712**

**February 23, 2020**

**Protective Headgear Requirement for Motorcycle Riders—Exception**

**Testimony in Opposition**

**Senate Judicial Proceedings**

Chairman William Smith Jr. and distinguished members of the committee,

My name is Dr. Jacques Mather and, along with my colleague Dr. Farheen Qurashi, we are the co-chairs of the legislative committee for Traumanet, Maryland's coalition of nine trauma centers. I am also the medical director for the Center for Injury Prevention and Policy at the R Adams Cowley Shock Trauma Center, University of Maryland. Dr. Qurashi and I are also both trauma surgeons. Working in one of the busiest trauma centers in the country, the consequences of motorcycle helmet laws are far from abstract to us. Imagine for a second that it is your hands holding the fractured skull of an injured non-helmeted motorcyclist. Imagine this is your loved one. Laws are easier to make when you can avoid the tangible consequences of them.

There are those who argue that helmet use should be a choice. I, as much as any other American, value the importance of individual rights in our society. However, we, as a society, have also recognized that when an individual's self-imposed choice can have major ramifications on other people or on institutions than there is a role for regulating that choice. Helmetless riding takes as much a toll on society as it does on the individual. How willing are we to risk the lives of our fellow Americans? For example, during the COVID pandemic, regions with mask mandates have had significantly less virus spread and fewer deaths. While this may seem apples to oranges, the reality is that it's just risk at a different magnitude. Arguments similar to those against helmets have been made against mask mandates and more people have died as a result of the failure to act. To use another example, we also do not see serious congressional debates on removing helmets from football players. The risk of brain injury is understood, much as it is for motorcyclists, and helmets have become a mandatory part of play despite the individual right of the player to concuss themselves.

In 2017 there were 5,172 motorcyclists killed in the United States. Only 87 (1.7%) of those deaths occurred in the state of Maryland. Moreover, 40% of the motorcyclists killed nationwide were helmetless. In the state of Maryland, however, due in large part to universal helmet laws, that figure was only 14.9%. Since 1992, a universal helmet law has been in effect in our state and thousands of lives have likely been saved.

In 2017, the State of Maryland saw 5.24 deaths per 10,000 registered motorcycles. Comparing this, for example, with South Carolina, a state that has a similar number of registered motorcycles, but partial helmet laws, their rate of fatalities was more than twice as high at 11.97 per 10,000 (NHTSA). Research has shown that in states with partial helmet laws the mortality rate is 45% higher for ages 16-20 and

42% higher for ages 21-55 than states with universal helmet laws (Notrica, 2020). In Maryland from 2015-2019, 24% of motorcycle riders involved in crashes were age 21-29, while 26% were age 45-59. To put it simply, partial helmet laws kill more motorcyclists.

Our testimony, therefore, is in opposition to Senate Bill 712 which, evidence has shown, will increase the risk of injury and death to motorcyclists in Maryland—your constituents. Motorcycles are the most hazardous form of motor vehicle transportation. But helmets reduce the risk of death by 37% (CDC). Choice alone is not effective. Helmet use is as high as almost 90% in states with universal laws but closer to 50% in states with partial laws (NHTSA).

Traumatic brain injury (TBI) is perhaps the most dreaded nonlethal outcome following motorcycle crashes; helmets can reduce this risk of head injury by 69% (CDC). TBI is a serious and potentially life-long injury following a motorcycle crash. While there is a spectrum of injury, the failure to use a helmet can make what otherwise would have been a small concussion into a major skull fracture with bleeding in the brain requiring brain surgery. Lifetime care for even a single patient with a serious TBI can amount to millions of dollars, further burdening our already overwhelmed healthcare system. Helmet use reduces the cost of medical care, length of intensive care unit stay and overall hospital stay, as well as the probability of long-term disability; and this calculation does not even take into consideration the significant emotional and societal toll of these preventable tragedies. Helmet use not only limits the severity of TBI but has also been shown to reduce the risk of cervical spine fractures which can lead to paralysis or death (Page, 2018).

If lives saved alone is not sufficient motivation to keep this bill from passing, it is important to consider that helmetless riders also create an enormous economic burden. In 2016, nearly \$3.4 billion in economic costs and \$21 billion in comprehensive costs were saved by use of motorcycle helmets. If all motorcyclists in the United States wore helmets, we could save more than \$1 billion yearly. In the state of Maryland, motorcycle helmets currently prevent almost \$540 million in societal harm annually. The four Maryland counties with the highest number of motorcycle crashes from 2015-2019 were Prince George, Baltimore County, Baltimore City and Anne Arundel. If this bill were to pass, the increased economic burden to these counties would be \$76 million, \$75 million, \$60 million and \$57 million respectively. Moreover, given that the annual medical costs of un-helmeted riders are estimated to be over \$250 million, it is easy to imagine how dramatically the costs of healthcare to Marylanders will increase were this bill to be enacted. Can our state and your counties afford the tens of millions of dollars in additional healthcare costs during this global pandemic?

We thank you for your time and urge you to oppose this legislation and protect your constituents from preventable injuries and death.

Respectfully submitted,

Jacques Mather MD, MPH, FACS

[jmather@som.umaryland.edu](mailto:jmather@som.umaryland.edu)

301-618-2273

<https://smarter-usa.org/wp-content/uploads/2018/05/Lives-and-Costs-Saved-by-Motorcycle-Helmets-2016-May-2018.pdf>

<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812492>

<https://www.cdc.gov/motorvehiclesafety/mc/index.html>

<https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/810887.pdf>

[https://www.ghsa.org/sites/default/files/2018-05/ghsa\\_motorcyclists18.pdf](https://www.ghsa.org/sites/default/files/2018-05/ghsa_motorcyclists18.pdf)

Patel P, et al. Unhelmeted motorcycle riders have increased injury burden: A need to revisit universal helmet laws. 2019. J of surg research 242: 177-182

Notrica, et al. Impact of helmet laws on motorcycle crash mortality rates. 2020. J trauma acute care surg. 89(5): 962-970

Peng et al. Universal Motorcycle Helmet Laws to reduce injuries: A community guide systematic review. 2017. Am J Prev Med 52(6): 820-832

Page P, et al. Motorcycle helmets and cervical spine injuries: a 5-year experience at a level 1 trauma center. 2018. J Neurosurg Spine 28(6): 607-611