Motorcycle Helmet Use in Rhode Island
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ABSTRACT
Motorcycle crashes are a major public health concern and place economic stresses on the health care system. Helmets have been shown to reduce both motorcycle-related fatalities and head injuries. Universal motorcycle helmet laws in other states have shown to be effective at increasing helmet use. The current Rhode Island motorcycle helmet law does not require every motorcycle rider to wear a helmet. Given the number of deaths and injuries that could be prevented, public health efforts to increase helmet use through education and legislation should be considered for review.

KEYWORDS: Motorcycle, helmet, state law, fatality, cost

Motorcycle crashes: A costly national concern
In the United States, 4,612 people died in motorcycle crashes in 2011, representing a 217% increase from 1997. Motorcycles account for less than 3% of all registered vehicles in the U.S., yet they constitute 14% of all traffic-related fatalities. For every mile traveled, motorcyclists are 30 times more likely to die in a traffic-related crash than individuals riding in a car. Compared to other vehicle operators, motorcyclists in fatal crashes have higher incidences of being alcohol-impaired (28%), riding without valid licenses (22%), speeding (35%), having previous license suspensions or revocations (18%), and having past DWI convictions (4.7%).

In 2009, there were 90,000 motorcyclists injured in the U.S. Injured, non-helmeted motorcyclists require substantially more health care resources than helmeted motorcyclists, placing additional stress on each state’s health care system. Hospital charges for non-helmeted motorcyclists average $39,390 versus $36,334 for helmeted motorcyclists, with the differential health care costs between non-helmeted and helmeted motorcyclist injuries accounting for an additional $250 million per year.

While the decision to wear or not wear a helmet is often viewed as a personal choice affecting only the motorcyclist, it is an inescapable fact that the cost of providing health care to a motorcyclist following a crash is largely borne by society, not the operator; thus the argument that it is an individual’s right is irresponsible and flawed. The majority of motorcycle crash victims’ medical care is paid for by public funds. Compared to helmeted motorcyclists, non-helmeted motorcyclists are more likely to be covered by government-funded health insurance or to have no health insurance at all.

Motorcyclists without helmets are significantly more likely to experience traumatic brain injury (TBI). Severe TBI patients average 55 days of acute rehabilitation, and median hospital charges for motorcyclists with TBI are 13 times more than those without TBI. Factoring in the costs of lost work and long-term disability, the societal burden of motorcycle crashes reaches beyond acute medical care. Initial hospitalization and emergency department treatment account for only 68% of total medical costs. Other medical charges include hospital readmissions, professional fees, ambulatory care services, rehabilitation, and nursing home care, leading to higher insurance rates, increased taxes, and lost tax revenue. Medical and productivity costs saved from helmet use are estimated to be $1,212,800 per fatality, $171,753 per serious injury, and $7,523 per minor injury. In a single year, the economic cost of motorcycle-related crashes total over $12 billion.

Helmets prevent unnecessary deaths and head injuries
Helmets prevent fatalities and can reduce the number and severity of head injuries. Helmets are estimated to reduce the risk of head
injury in motorcycle riders by 69%.14 One study found that after implementation of a statewide universal motorcycle helmet law, fatalities decreased by 37.5%.19 In 2010, an estimated 1,550 motorcycle-related fatalities were prevented by helmet use and 706 more lives could have been saved nationwide, had everyone worn helmets.2

**Universal helmet laws increase helmet use**

Universal helmet laws require all motorcyclists and motorcycle passengers of all ages to wear helmets. Universal motorcycle helmet laws have shown to be effective at ensuring widespread helmet use.21 Each state determines its own helmet law, and states that have enacted universal helmet laws have witnessed substantial increases in helmet use.15-19 Conversely, states that have repealed universal helmet laws have witnessed substantial decreases in helmet use.15,20-22

**Current Rhode Island helmet law**

The current motorcycle helmet law in Rhode Island only requires three groups of motorcyclists to wear helmets: passengers,23 new operators (who must wear helmets for a year after receiving their licenses), and operators under the age of 21.24 Over 100 motorcycle-related injuries occur each year in Rhode Island.25 In 2011, there were 16 motorcycle-related fatalities in Rhode Island.1 All fatalities were 21 or older.1 Seventy-three percent of RI motorcyclist fatalities were not wearing helmets in 2010.2

**Conclusion**

The decision to ride a motorcycle without a helmet has consequences that affect more than just the motorcyclist. In an effort to prevent unnecessary health care costs, injuries, and deaths, public health efforts to increase helmet use through education and legislation should be strongly considered. In light of the recent Rhode Island state legislative discussions on extending mandatory seatbelt laws and the “Reach Across, Avoid the Loss” seatbelt ad campaign, helmet use on motorcycles fits squarely within the purview of the state’s public health and economic considerations.

Getting motorcyclists to wear helmets requires a system change. Medical care providers have opportunities to directly educate and encourage patient helmet use. State legislators should consider reexamining the current helmet law. Given the demonstrated efficacy of universal helmet laws on helmet use, a substantial reduction on state health care spending might be realized. Because helmets can save lives and money, this solution should be attractive to a broad coalition of support from providers, insurers, and the public.

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