

## To Maximize Safety, Encourage Helmet Use. But Don't Mandate It

A decade ago, as urban bicycling was rising in popularity and the country's first bike share systems began operating, city and state policy makers considered various new measures to make bicycling safer, including: slower vehicular speed limits, protected bike lanes, enhanced traffic enforcement, and also mandatory helmet laws.

In New York, for example, where helmets were already required for children ages 14 and younger, both the state and city legislatures debated laws to make helmets compulsory for all adults. Ultimately, New York joined the chorus of cities and states that decided against making helmet use for adult bicyclists a strict legal requirement. The reasons for deciding against mandatory helmets included the following:

- Most North American and Australian studies have concluded that **mandatory helmet laws have not been effective** in reducing bicycle related injuries and fatalities<sup>1</sup>,
- Compulsory helmet laws have been found to **suppress ridership**<sup>2</sup>, particularly among potential bike share riders, undermining the proven safety in numbers effect<sup>3</sup> and the health and safety benefits that come from replacing car trips<sup>4</sup>;
- Helmets can provide false sense of security, lowering the perceived risk exposure and spurring crash prone risk compensation<sup>5</sup> type behaviors in both motorists and riders;
- Helmets can be a barrier to low-income cyclists who may also be subject to selective enforcement. Data in Dallas showed that police officers used the helmet law there for very selective enforcement vs. non-white cyclists. For this reason and others, Dallas repealed its helmet law for riders over 18 in 2014.<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> Dennis et al., 2009; Kett et al., 2016; Wesson et al. 2007; Robinson 2006

<sup>&</sup>lt;sup>2</sup> <u>The Health Impact of Mandatory Bicycle Helmet Laws</u> De Jong, Piet. (February 24, 2010). Risk Analysis, 2012. Available at SSRN

<sup>&</sup>lt;sup>3</sup> Safety in Numbers for walkers and bicyclists: exploring the mechanisms

<sup>&</sup>lt;sup>4</sup> <u>A New Traffic Safety Paradigm</u>

<sup>&</sup>lt;sup>5</sup> Strange but True: Helmets Attract Cars to Cyclists

<sup>&</sup>lt;sup>6</sup> Do Helmet Laws Unfairly Target Minorities?

• Mandatory helmet laws divert attention and resources away from more effective safety measures<sup>7</sup> such as protected infrastructure, enforcement and education.

Now, with the increasing popularity of e-scooters, and with reports of increasing e-scooter injuries, helmet policy is again coming to the fore. As policy makers consider various strategies to enhance the safety of the growing number of commuters who are choosing shared e-scooters, it is imperative that policy makers intent on preventing injuries are aware of the many unintended harmful consequences of mandatory helmet requirements.

## Fellow Travelers: bicycles and shared e-scooters

The riders of bicycles, low speed e-bikes and e-scooters share a lot in common. The average top speed of bicycles and shared e-scooters are both in the range of 12 - 15 mph. Both modes are used for similar types of trips at similar average distances of 1-3 miles in length. Both are best operated in bike lanes and on the street, and both are becoming a popular alternative to car trips, particularly for short journeys. And, most importantly, riders of both bicycles and e-scooters share the same inherent vulnerability: if they are involved in a crash, there are not seat belts, air bags, or metal encasing to insulate them from injury.

As proven with bicycling, it is best to encourage helmet use, but not mandate it. Strict helmet requirements have been shown to significantly restrict and suppress ridership, particularly for shared mobility systems, therefore nullifying the many benefits of riding bikes or e-scooters.

Helmets can clearly make some types of crashes less injurious, but they do not prevent them. There are three strategies that have been proven to prevent crashes and injuries: reducing VMT, improving street design, and encouraging more ridership.

- 1. **Reducing Vehicle Miles Traveled** (VMT). The link between more driving and more crashes is well established. As a recent Portland Bureau of Transportation study on e-scooter usage concluded, "National research has found that the strongest variables connected to traffic fatality rates are the number of automobile vehicle miles traveled and vehicles per capita."<sup>8</sup>
- 2. **Safe street designs** like protected bike lanes have reduced injury risk to all road users by up to 90%<sup>8</sup>.
- 3. Reaching **safety in numbers**, whereby crash rates are reduced as motorists become habituated to notice and exercise care around vulnerable road users like bicyclists and e-scooter riders as they become more prevalent<sup>9</sup>.

It is no coincidence that the cities with the lowest injury and fatality rates for cyclists--Copenhagen, Amsterdam, New York City-- are pedestrians are precisely those cities that have

<sup>&</sup>lt;sup>7</sup> Bike helmets – a dangerous fixation?

<sup>&</sup>lt;sup>8</sup> https://www.portlandoregon.gov/transportation/article/709719

<sup>&</sup>lt;sup>9</sup> <u>https://usa.streetsblog.org/2012/10/22/study-protected-bike-lanes-reduce-injury-risk-up-to-90-percent/</u>

actively encouraged more walking and bicycling while simultaneously opting out of mandatory helmet laws and onerous licensing schemes.

Bike and e-scooter sharing systems thrive on spontaneity. People will be reluctant to ride if they're forced to jump through additional hoops.

In Australia, provincial helmet laws discouraged bike share use in Melbourne and Brisbane. Tel Aviv and Mexico City recently repealed their mandatory helmet laws to introduce successful bike share programs. Bike share in Seattle, which requires helmet use for all riders, has created an impediment for rider growth.

As Elliot Fishman writes in "Bikeshare: A Review of Recent Literature" in the journal Transport Reviews<sup>10</sup>:

"[Bike share] users demonstrate a greater reluctance to wear helmets than private bicycle riders and helmets have acted as a deterrent in jurisdictions in which helmets are mandatory."

This reluctance has proven to not make injuries, or head injuries, more common. In cities with new bike share systems — New York, Washington, D.C., Minneapolis, Montreal — head injuries decreased 27%, even with the tens of thousands of new, unhelmeted cyclists on the streets.<sup>11</sup>

Helmets make certain types of crashes less severe, and they should therefore be encouraged. Making helmets mandatory, however, increases overall crash risk.

<sup>&</sup>lt;sup>10</sup> http://nacto.org/wp-content/uploads/2016/02/2016 Fishman Bikeshare-A-Review-of-Recent-Literature.pdf

<sup>&</sup>lt;sup>11</sup> https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2014.302012