As Bicycling Gains Popularity, Safety Concerns Rise

By Lucette Lagnado
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As bike-share programs get new riders on the road and into better shape, some doctors say they are treating far more injuries, including traumatic ones, related to cycling. Cities need to do more to make cyclists and pedestrians safe, the doctors say.

In a paper issued last summer, the Governors Highway Safety Association said bike-related deaths on U.S. streets and highways rose 12.2% in 2015 from the previous year, based on data from the National Highway Traffic Safety Administration. Bike fatalities rose by 1.3% in 2016.

Two studies led by researchers at the University of California San Francisco, including one published in JAMA in 2015, analyzed more than 15 years of national data from 100 emergency rooms and found that bike-related traumatic injuries increased by 28% over the period.

Hospital admissions due to bike traumas rose by 120%, “which means the injuries are more severe,” says Benjamin Breyer, the lead author and an associate professor of urology and epidemiology and biostatistics at UC San Francisco. The percentage of bike riders with head injuries increased to 16%. Many of the serious injuries were suffered by bikers age 45 and older, who are more vulnerable than younger cyclists, Dr. Breyer says.

Mount Sinai St. Luke’s Trauma Center, which is a few blocks from New York City’s Central Park, has seen an increase in bike-trauma victims, many injured in the park. The severity of their injuries—including shattered bones, facial trauma and damaged organs—prompted Stephen Zink, a St. Luke’s radiologist, to analyze them. Working with the trauma team, Dr. Zink, an assistant professor of radiology at Icahn School of Medicine at Mount Sinai, found that in the three years from 2014 through 2016, bike-related traumas treated at St. Luke’s increased by 34.5%. He will present the research at the Radiological Society of North America’s annual meeting in November. The study also found that the injury-severity score, which indicates a case’s overall seriousness, rose from 4.03 in 2014
to 4.47 in 2016.

Dr. Zink, who is 43 years old, has a mountain bike and a road bike and used to ride to work from his home in Manhattan. He hasn’t in many months, he says, because of the crashes his trauma center treats. He is especially moved by those involving tourists and others who rent bikes to explore New York and end up with life-altering injuries.

The St. Luke’s trauma team attributes the surge in serious injuries at their hospital and elsewhere in part to the popularity of biking and bike-sharing programs in New York, Boston, Chicago, Washington and other cities. Among their concerns: many bike-rental operations don’t provide helmets.

Some supporters of urban cycling reject or question the value of helmets as a protective measure. Others say that while helmets make sense to guard against head injuries, to mandate them through policy or laws would depress ridership and bike-share participation. That decrease, they say, would work against public safety.

Citi Bike, the bicycle-sharing program in New York, offers discounts to buy helmets and urges bike-share participants to use helmets but doesn’t rent them.

Motivate, the company that operates Citi Bike as well as bike shares in cities across America, said in a statement that “bike share has proven itself to be extremely safe,” citing more than 88 million rides to date, including more than 70,000 rides a day in New York City. Motivate’s statement echoed the position of many bike-riding advocates that the way to “make bicycling even safer is to encourage ridership” and that “as drivers adapt to more cyclists, the streets become safer for everyone.”

“We need to build better bike lanes and more bike lanes,” says Kate Fillin-Yeh, strategy director for the National Association of City Transportation Officials, a coalition of city transportation agencies. “These lanes work—the increase in riders makes it safer,” says Ms. Fillin-Yeh, who as a New York City official helped bring bike-sharing to the city.

NACTO doesn’t back making helmets mandatory, including by bike-share programs. A report by the group said that “mandatory adult helmet laws reduce bike ridership and...
don’t increase safety.” To Ms. Fillin-Yeh, helmets are “a matter of personal choice. As a matter of policy affecting an entire region” mandatory helmet laws “dramatically decrease the number of people who ride.”

Cycling in general is “safe and healthy,” UC San Francisco’s Dr. Breyer says, but given “that in absolute numbers, you have so many injuries, wouldn’t you want to make things safer?”

The rate of injuries and fatalities—especially given the huge increase in ridership—is down, cycling advocates say. In New York City, for example, bike ridership rose 150% between 2006 and 2016, according to city transportation officials.

Officials at New York City’s Department of Transportation say the city has made enormous investments in establishing dedicated and protected bike lanes and other infrastructure to make cycling safe. The officials said they believe in helmets’ protective value and have encouraged their use and distributed more than 190,000 free helmets. Juan Martinez, director of traffic-operations policy said of New York: “We are remaking our streets at a tempo that makes us the envy of every city” in the U.S. and “as a result we are safer.”

Mr. Martinez said he and his DOT colleagues support the doctors’ desire to create a safer environment for cyclists and pedestrians. The DOT’s injury data is collected by the New York City Police Department, Mr. Martinez said, and then refined by state transportation authorities. Serious injuries in bike-share zones fell 17% in 2014, the most recent year of DOT injury data, the agency said. The decline in serious injuries followed the launch of the Citi Bike program, officials noted.

Doctors in several cities where cycling has taken off express concerns similar to those of the St. Luke’s trauma team: That biking has expanded too rapidly for cities to put in place the infrastructure and regulations to prevent serious injuries.

Three years ago, when Charles Cook moved to Boston from Ohio to become chief of trauma and emergency surgery at Beth Israel Deaconess Medical Center, he was taken aback by the number of bike crashes. “I was seeing a lot more bike injuries than I ever did in Ohio,” Dr. Cook says.

While the proportion of bike-related traumatic injuries was stable over the past three to four years, when he examined his trauma center’s data of the past decade, he found these injuries as a proportion of overall traumatic injuries quadrupled, from 1% to 4.4% in 2015.

Dr. Cook bikes to work from a Boston suburb, he says, enlisting a helmet, flashing lights and “obnoxiously” bright clothing to stay safe. He thinks Boston has tried to make cycling safe but worries about what lies ahead. Last year, at his initiative, Beth Israel Deaconess hosted a Bike Safety Day, where he and other trauma surgeons buttonholed people entering or leaving the hospital, handed out flashing reflectors and emphasized measures such as wearing a helmet and being visible while cycling.
At Northwestern Memorial Hospital in Chicago, which has a Level I trauma center, a review of four years of bike-related traumatic injuries, from 2012 to 2016, found a “steady increase in bike-related traumas” amounting to a 52.8% rise. There were 53 such injuries in a one-year period from October 2012 to September 2013, and 81 injuries from October 2015 to September 2016, a hospital spokeswoman said. They continue to climb, with some crashes happening on a path along Lake Michigan near the hospital, where cyclists and pedestrians uneasily coexist. Chicago has been working to separate cyclists and pedestrians on the path.

MedStar Washington Hospital Center in Washington. “You are riding a bike, you should have to wear a helmet.” Dr. Milzman, a professor of emergency medicine at Georgetown University School of Medicine, said that bike-related emergency-room visits have soared in seven Medstar hospitals between Washington and Baltimore, Md. The hospitals saw 375 bike-related injuries in 2016 compared with 217 in 2012, he says, or a 72.8% increase. The figures include both major bike-related traumas and minor injuries, he said.

New York resident Nicolas Guelpa never wore a helmet when he commuted by bike from his home in Harlem to his job downtown. In May, Mr. Guelpa, a 32-year-old French native, was riding home on a path along the Hudson River when he encountered some runners.

He isn’t sure what happened but he landed on the ground and was taken by ambulance to St. Luke’s Trauma Center, where the team found he had a serious brain injury. They operated, drilling a hole in his skull.

“I was very, very lucky,” he says. While he still suffers from vertigo, he has generally recovered—and says he won’t bike without a helmet again.