Troisi, Williams: Public health approach can stem gun violence

Accidental shootings prompt experts to apply familiar safety measures

By Catherine Troisi and Stephen Williams  |  February 2, 2016  |  Updated: February 2, 2016 6:14pm
Parents of victims of gun violence, pastor Ruett Foster, from left, his wife Rhonda and Anna Del Rio hold pictures of their late children, during a rally supporting a city ordinance to ban the possession of high-capacity gun magazines outside Los Angeles City Hall, Tuesday, July 28, 2015. The Los Angeles City Council has voted to ban possession of high-capacity gun magazines in the wake of several deadly mass shootings around the country. (AP Photo/Nick Ut)

We have heard the statistics: Every year in the U.S., an estimated 30,000 persons die from injuries involving guns, including heartbreakingly, 1,500 children. Here in Harris County, gun accidents are now the second cause of accidental death among children. Regardless of where you stand on the role of guns in society, we would all agree that we need to decrease these numbers. We believe that taking a public health approach, similar to that successfully used to decrease deaths from automobiles, is the method we need to use to do this.

According to a review of major achievements of public health done by the U.S. Centers for Disease Control and Prevention, six times as many people drove in 2000 as in 1925, and the number of cars increased by eleven-fold with the number of miles driven 10 times higher. One might therefore anticipate that more people are dying in motor-vehicle-related crashes - and yet the data show otherwise. The annual death rate (calculated per vehicle miles traveled) has declined by an incredible 90 percent. What improvements led to remarkable achievement?

This decrease in motor-vehicle fatalities is due in large part to the work of a physician, Dr. William Haddon, who applied standard public health methods to this problem. Public health workers/leaders/advocates took a three-pronged approach to increasing road safety targeting cars, roads and drivers through both technological advances and policies.

The 1966 Highway Safety Act and
the National Traffic and Motor Vehicle Safety Act set standards for both safer motor vehicles and highways. Car design was improved to afford better protection to occupants in case of a crash. New car safety features such as safety belts, shatter-resistant windshields, head rests, etc., increased the likelihood that persons involved in a crash would survive and would suffer fewer or less severe injuries. Roads were redesigned - road reflectors, center stripes, breakaway sign and utility poles, improved lighting and guard rails were added to advance safety.

While these changes led to rapid decreases in motor-vehicle deaths, these were not the only improvements. Driver and passenger behavior changed due to a combination of laws, policy, and education, as well as changes in social acceptability of certain behaviors. There was greater enforcement of laws against driving while intoxicated, underage drinking, open containers and requirements for safety-belt and child-safety seats. Graduated licensing laws aimed at beginning drivers enacted policies that make the process of learning to drive safer. Groups such as Mothers Against Drunk Driving helped change the social acceptability of DWI while other groups focused on the importance of using child safety seats. Other policies that have contributed to motor-vehicle safety include car safety inspections, speed limit changes and traffic regulations.

Preventing motor-vehicle related injuries took the application of a public health approach using technology, policies and behavior change and the collaboration of specialists in these areas. According to Dr. Georges Benjamin, executive director of the American Public Health Association, "Time and again, a public health approach to solving health threats is a proven, evidence-based approach to improving health and preventing injury."
We need to use these tools to stem the tide of gun-related injuries. We need data about what works and doesn't work, which requires lifting the ban on research dollars to study this. We need to work with the gun industry to design safer "smart" guns just as we have safer cars. We need an understanding of which policies work, and which don't, to protect people from injuries caused by guns. We need research into understanding and addressing violent behaviors including suicide prevention.

Again, to quote Dr. Benjamin, "Health epidemics don't end unless we intervene taking the best science about what does and does not work and using it. The epidemic of intentional gun violence can be reversed with a science-based approach. It happened with Ebola, it worked for automobile crashes and it can absolutely reduce gun violence." To accomplish this, it's time to reduce the rhetoric and have open conversations about this epidemic, agree on a common goal and work together to reduce these preventable injuries and deaths.

Troisi is a public health professional and chair-designate of the American Public Health Association's Action Board. Williams is director of the Houston Health Department.