Mangano, et al., have performed a retrospective review of all-terrain vehicle (ATV)–related injuries between 1993 and 2003 that were recorded in the St. Louis Children’s Hospital trauma registry. They reviewed data obtained in patients with ATV-related injuries who presented to the emergency department, and they extracted demographic data and general injury data according to the body system injured. Neurological injuries, cranial and spinal, were then specifically recorded by reviewing charts, clinic notes, imaging studies, and operative logs. The types and incidences of neurological injuries among individuals presenting with ATV-related injury were then described. The statistical analysis was limited to a relative risk (RR) analysis of neurological injury calculations for driver and passenger and RR of neurological injury in drivers and passengers who wore and did not wear helmets.

The results demonstrate several pertinent findings. The majority of patients identified were male (70.3%). The median age was 12.3 years. The majority of injuries were orthopedic. There were 62 patients with neurological injury representing 106 cranial and 13 spinal injuries. Children younger than 16 years of age accounted for 94% of injuries. Statistical analysis revealed an RR of neurological injury in ATV passengers of 1.9 (p = 0.003) whereas the RR was 0.53 in drivers (p = 0.003). There was a positive but not significant RR for neurological injury between helmeted and nonhelmeted ATV passengers (RR 1.75, p = 0.42) and drivers (RR 1.58, p = 0.30).

This study demonstrates the consistency of the data presented here with previous studies in several US states and Canada. In addition the authors propose the need for a public and industry commitment to safety training and certification in ATV use as well as increased surveillance of ATV use during high-risk seasons.

All-terrain vehicle–related injury is a significant contributor to overall recreational injuries. The morbidity and mortality rates attributable to neurological injuries associated with ATV use have been demonstrated in several studies. The study reported by Mangano, et al., contributes additional data that underscore the need to revise public and industrial standards such that they can help prevent ATV-related injury. The authors’ findings also support future efforts to institute more aggressive surveillance of ATV use and the enforcement of current standards. Furthermore, universal standards for recreational vehicle use must be developed, adopted, and enforced nationwide for optimal effect. Data of this nature support government and public actions in developing these types of guidelines. For these reasons, this is an important study.

RESPONSE: We appreciate Dr. Rutka’s thoughtful response to our report on neurosurgical injuries associated with ATVs, and we agree with his comments. Although the data available to us for analysis included certain inherent gaps that accompany any retrospective review, we believe strongly in our recommendations. Greater education and surveillance, higher standards, and tougher penalties for those who break the law may go a long way in decreasing the preventable morbidity and death associated with these recreational vehicles. We hope that our report will lead to further discussion and action to this end.