Beck et al. (1) obtained a counterintuitive result when they found that injury rates per trip were higher when the primary mode was walking compared with when the primary mode was driving in a passenger vehicle. The 2001 National Household Travel Survey (2), from which Beck et al. obtained numbers of trips by mode, categorized multistep trips by their predominant mode of travel. For example, a trip that included a walk from home to the curb to enter an automobile, followed by a passenger-vehicle trip to the supermarket, followed by a walk between the parked passenger vehicle and the supermarket, would be categorized by the National Household Travel Survey as a single “passenger-vehicle” trip to the supermarket. In the analysis by Beck et al., however, such a trip should have been counted as three separate trips, including one with a mode of “passenger vehicle” and two with modes of “walking.” This was necessary because crash injuries that occurred while walking to or from a parked passenger vehicle would have been counted by the injury and fatality databases analyzed by Beck et al. as pedestrian injuries (3) and, thus, would have been included in the numerator of Beck et al. when they calculated the rate of injuries incurred during walking trips. Adding these ingress/egress pedestrian trips to the denominator of walking trips would have increased the denominator used in calculating the “walking trips” injury rate from the value of 4,846 shown in table 1 of Beck et al. (1) to a larger number, which would likely be equal to 35,366 plus a number between 698,250 (¼ twice 349,125, i.e., the number of passenger-vehicle trips) and 349,125, depending on how many of the ingress/egress trips between passenger vehicles and other locations could be ignored because they were associated with zero risk of being struck by a motor vehicle (e.g., trips within single-family homes from the living areas to either in-home garages or the homes’ driveways). The denominator for injuries associated with walking trips also should have been increased to reflect the same sorts of ingress/egress trips that occurred during trips whose primary modes were via motorcycle, bus, bicycle, and “other vehicles,” as pedestrian injuries or fatalities also could have occurred during ingress or egress from these vehicles.

It thus seems likely that Beck et al. (1) grossly exaggerated the risk per walking trip by underestimating the number of walking trips. If events can appear in the numerator of a rate, then risk-associated activities that led to those events must be included in the denominator. Corrected denominators would likely show the rate of injuries on walking trips to have been substantially less than those on passenger-vehicle trips. Persons concerned with transportation policy should not rely on the conclusion by Beck et al. that walking is less safe on a per-trip basis than motorized vehicle travel.

ACKNOWLEDGMENTS

Conflict of interest: none declared.

REFERENCES


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DOI: 10.1093/aje/kwm286; Advance Access publication October 8, 2007