



Family Medicine Moments

March 14, 2024

Introduction: This week I am grateful to Kristina Gracey, faculty at Barre Family Health Center, for her essay that is both personal and informative. She is an avid and successful runner. Which can be dangerous. She has been thinking about this element of risk and adds a public health perspective to her reflection that I personally admire. Food for thought for possible collective advocacy by us all on this topic.

Over Fartsgrensen

By Kristina Gracey

The rhythmic sound of my sneakers sloshing through the icy, salty, slushy mix covering the roads is soothing as loud blasts resound from cars whizzing by. The droplets flinging off the car tires create a burning sensation on my skin as they stick and freeze to my tights before melting off. I estimate each car's speed. The moon reveals a red sedan approaching the intersection. 30 mph? The brakes grind as the driver leans forward, finally noticing us waiting in the crosswalk. Most pedestrian accidents in the U.S. involve front-end vehicle damage. Through the darkness, I see a fuzzy mitten behind the windshield cheerfully waving. Several minutes later, attuned to the sound of "too fast," I turn my head to see headlights from behind; I use my internal radar detector to estimate 60 mph. As the vehicle approaches, a middle finger arises out of the window, paired with a spitty

expletive. I focus on my breathing and watch the taillights fading. My running buddy and husband feels the rush and picks up the pace. I hope that the driver doesn't pull over.

Visibility contributes to pedestrian fatalities. I check myself. My reflective gear looks and feels like a snug 5-point harness. My sneakers hug the peeling edge of the crumbling road. My wearable lights highlight the camber of the road. Although years of vehicles crossing into the narrow shoulder have eroded what was once a continuous white line intended to protect people like me, I see white remnants of a line. I hopscotch over the potholes and plastic liquor bottles and envision hurdling myself over the ice-caked guardrail if needed. I imagine an arm fracturing with that leap. Then I imagine running on well-lit sidewalks. I try not to disappear into my thoughts about the unkind ways in which humans treat one another and prioritize one's rights over another's.

Training for the Boston Marathon in the dark has been a reminder of the ways this country differs from others. 200 miles north of the Arctic Circle in Tromsø, Norway, it snows nearly daily; there are ~4 hours of dim twilight/day at this time of the year. There are dedicated sidewalks to use when the snow has taken over and where the sun doesn't shine. The roads are not coated with sand and salt but are neatly and consistently plowed. Drivers seem to notice people. Walkers, runners, nordic skiers, and bikers enjoy the outdoors at all hours using well-lit sidewalks and trails.

The risk of death while running or biking is more than nil; 93 pedestrians died in Norway in 2020 in traffic accidents; 75% of the deaths occurred on rural roads. Nearly this many (74) pedestrian fatalities in Massachusetts in 2021. In the U.S. in 2021, 7,388 pedestrians were killed in traffic-related accidents, the highest since 1981; 77% of these occurred in the dark and on average, a pedestrian died every 71 minutes, with another injured every 9 minutes. 51% of the pedestrian deaths have "failure to yield right of way" as a related factor, with 18% related to "improper crossing of a roadway or intersection".

It doesn't take much running to expect problems at intersections. From the same article, 19% of the fatalities occur with a driver who has a alcohol BAC 0.08 g/dL or higher and nearly one in four were hit-and-run accidents. And what do we make of the nearly 65% of Massachusetts fatalities with "unknown factors" related to the deaths? Road design, driver behavior, vehicle size and design are all likely factors contributing to increasing risks of being a pedestrian at night. Don't be afraid of the dark; darkness is not cultural. State highways, where traffic volume, higher speed limits, and fewer sidewalks and crosswalks, account for more pedestrian deaths than roads owned by other agencies (county, cities, and towns). The statistics have changed how I run but have not robbed me of running in the dark.



In Norway, drivers see signs depicting a disappearing girl with the label, “over fartsgrensen” meaning “over the speed limit.” Is it possible a sign could actually change driver behavior? This signage was part of a larger public health campaign which led to positive changes in driver attitudes towards speed limits with modest reductions in driving speed. What would it take in the U.S. for drivers to better adhere to limits of speed, of alcohol, of their behavior? A parallel public health example is cigarette labeling. Studies in Canada have shown that graphic images increase smoking cessation behavior although they also generate fear and disgust. In 2022, the FDA began requiring integration of gruesome images of the health consequences of smoking into cigarette packages and advertisements. Neither cigarette labeling or speed limit reminders are primary prevention approaches but they do call into question limits of what people should be allowed to do and keep communities a little safer.

Last week, I took my 2-year-old for a walk in Worcester in the evening; despite her squishy cheeks, round belly and cuteness, people did not readily stop at the crosswalks. Our patients who walk to work, to bus stops, to the grocery stores in and around Worcester face risk of death by doing what they normally do. Studies in NJ demonstrating crashes with pedestrians and cyclists are more likely to occur in low-income areas. While we can't dramatically change culture at this time in history, we can start with noticing what we see and applying limits to what we are willing to accept as reasonable.