

Data Analysis Plan, NCT 03604497

October 9, 2020

Data Analysis. Baseline characteristics were examined descriptively, and then primary analyses were conducted using general estimating equation logistic regressions to account for the dependence of crossing events within participants. The models estimated odds ratios (ORs) and associated 95% confidence intervals (CIs) for the association between the study intervention phase (i.e., pre-intervention, intervention, and post-intervention phases) and distraction (whether visual or aural). Models were adjusted for age, race, distraction prevalence during the pre-intervention phase, and type of phone (i.e., Android or iOS). Given potential for user curiosity at the start of each phase creating changed behavior, a sensitivity analysis was conducted by comparing behavior in the third week of each phase rather than behavior across the full phase.

Next, since anecdotal evidence suggested users were curious about how the alert functioned and therefore used their phone purposely as they approached the intersection, creating artificial datapoints, we conducted analyses stratified by extent of baseline distraction. Finally, we recognized the Android and iOS platforms offered very different alerts to pedestrians, so analyses were conducted to examine whether effect modification by both the prevalence of pre-intervention distraction and phone type was meaningful by including a three-way interaction of intervention phase, distraction category, and phone type in an age- and race-adjusted model examining stratified ORs.