13 Beaches Figures

Figure 1: Placeholder: Map of all 13 beaches with additional data

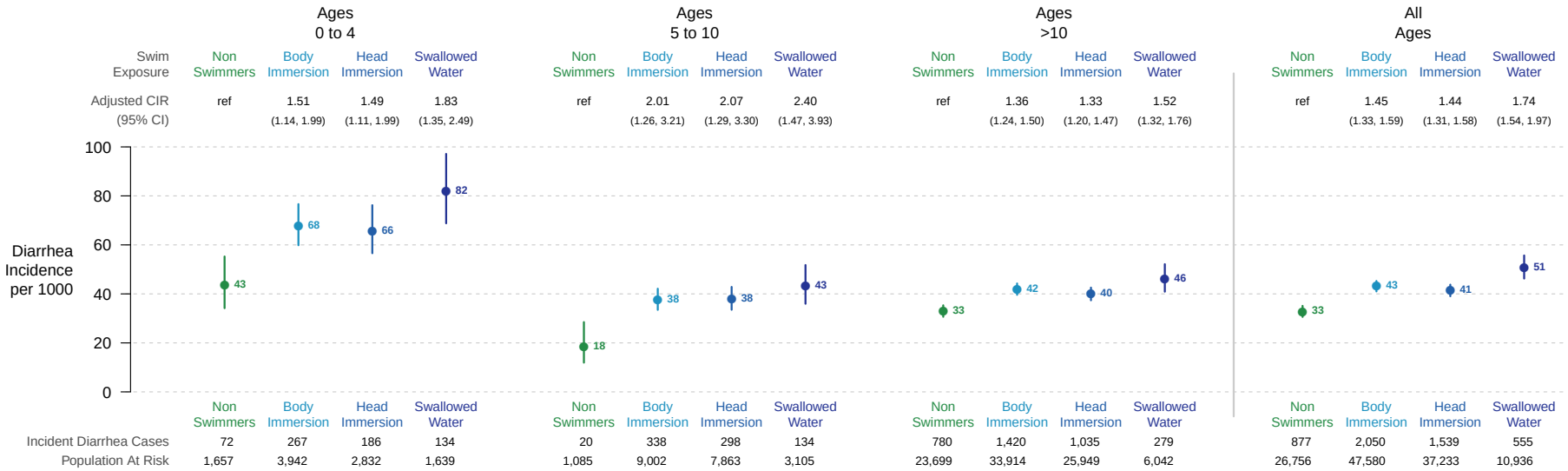

Figure 2: Incident Diarrhea Associated with Water Exposure Stratified by Age. Cumulative Incidence Ratios (CIRs) are adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

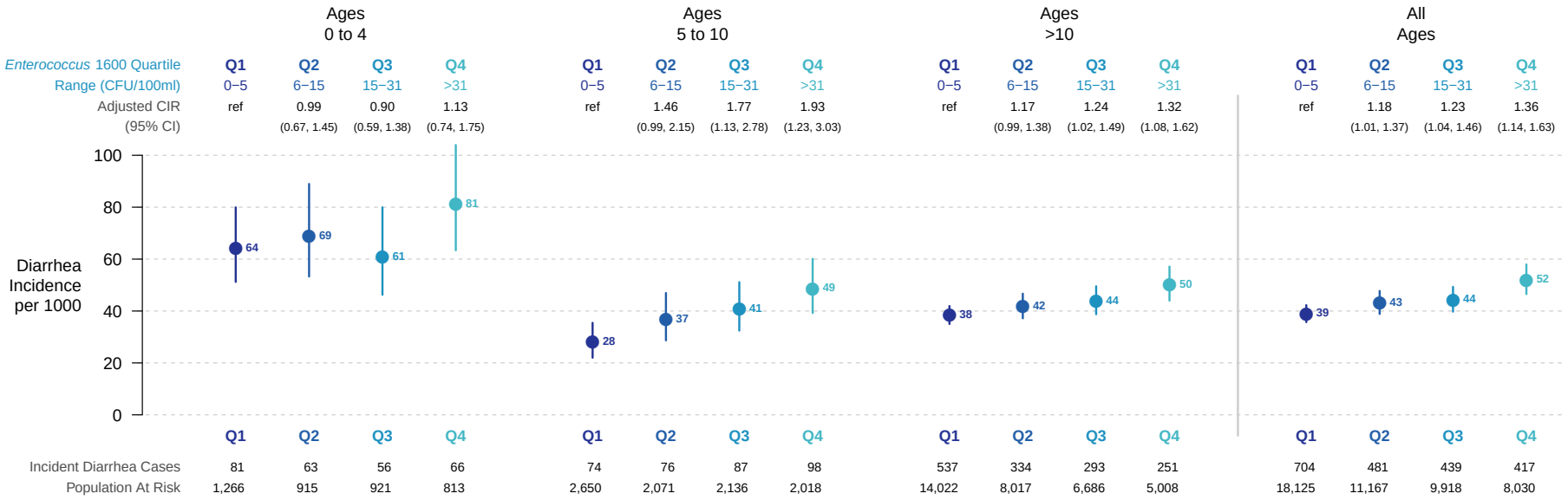

Figure 3: Incident Diarrhea Among Body Immersion Swimmers Associated with Quartiles of *Enterococcus* EPA 1600 Concentration, Stratified by Age. Cumulative Incidence Ratios (CIRs) are adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

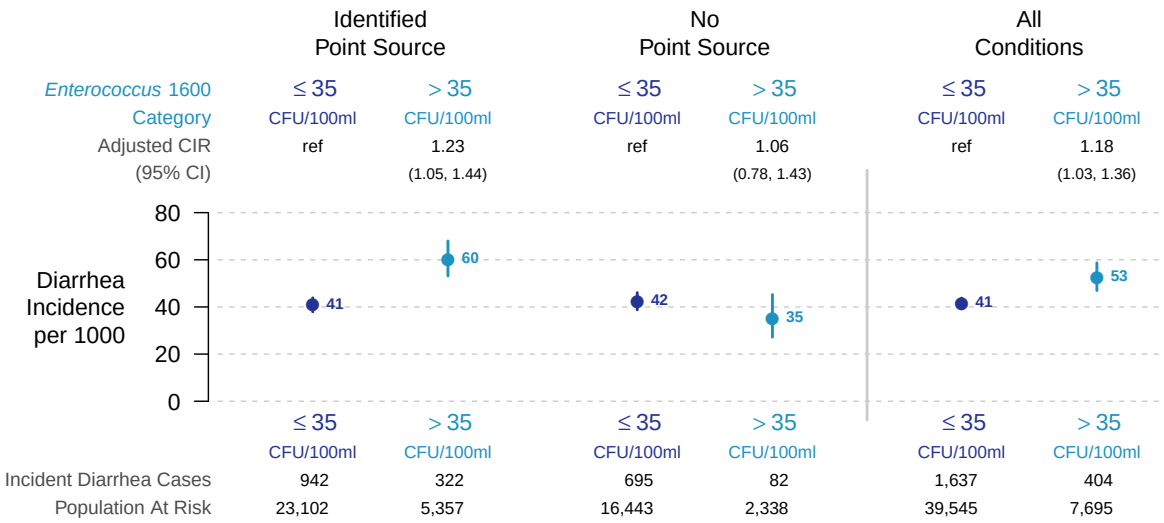

Figure 4: Incident Diarrhea Among Body Immersion Swimmers Associated with *Enterococcus* EPA 1600 Concentration Above and Below Regulatory Guidelines, Stratified by Beach Conditions. Point source beaches had an identified source of human sewage discharge nearby. Cumulative Incidence Ratios (CIRs) were adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

13 Beaches Supplemental Figures

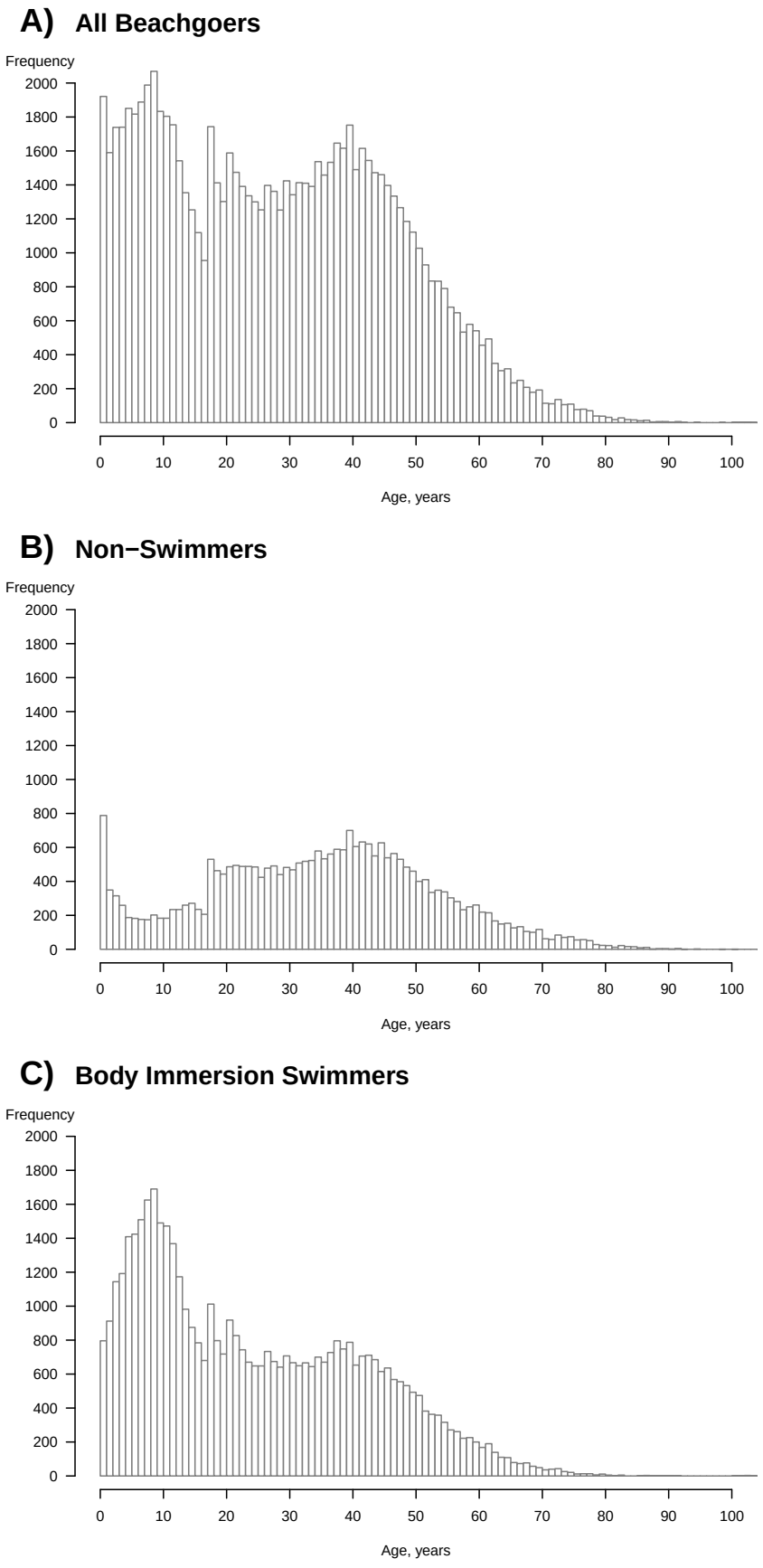

Figure S1: Study population age distribution; bin width is 1 year. **A)** All beachgoers (N=88,083). **B)** Non-swimmers (N=27,460). **C)** Body immersion swimmers (N=48,573)

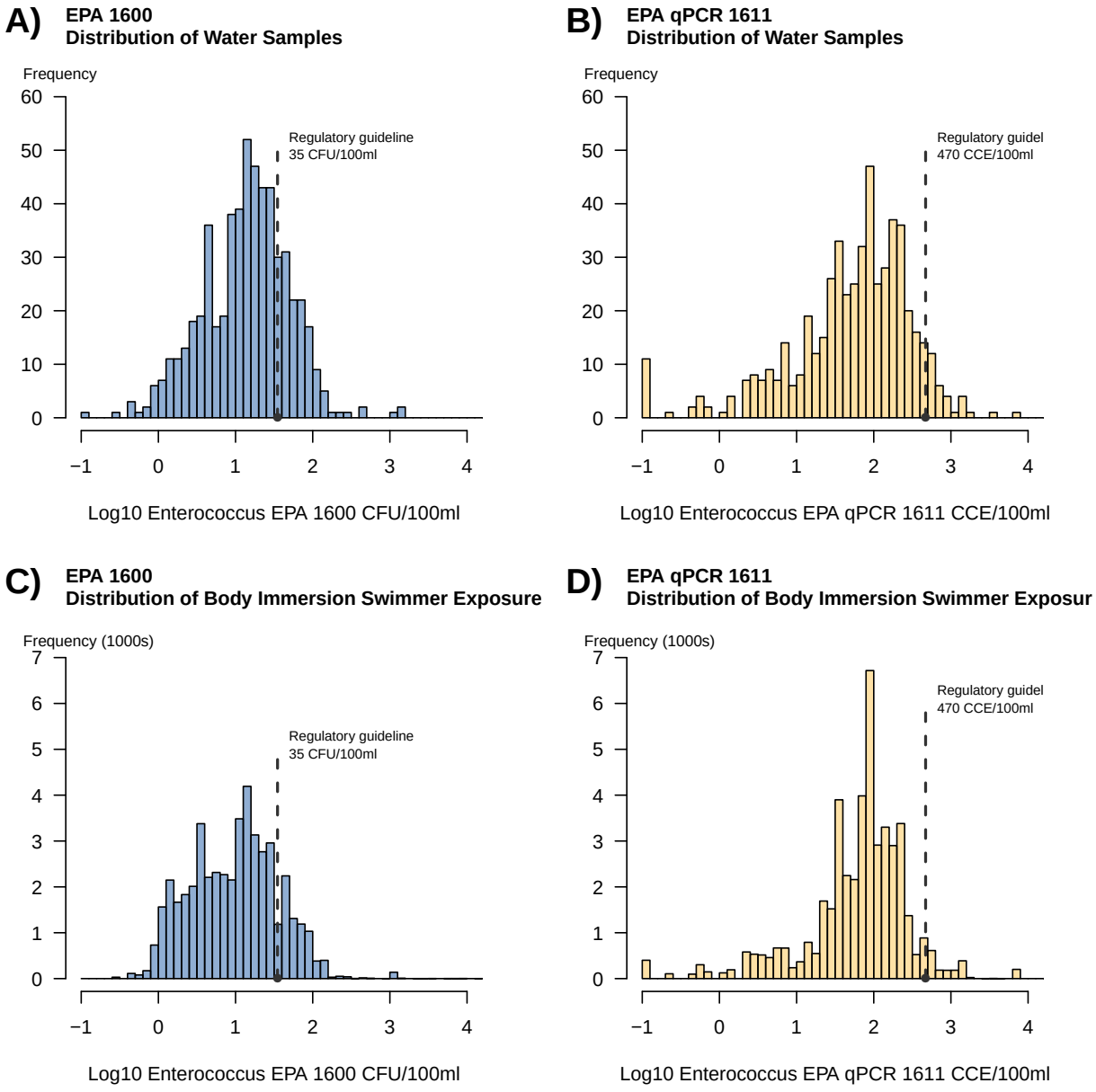

Figure S2: Distribution of *Enterococcus* Water Samples and *Enterococcus* Exposure Among Body Immersion Swimmers Matched to Water Samples. Bin width is 0.1. **A)** *Enterococcus* EPA 1600 water sample distribution. **B)** *Enterococcus* EPA qPCR 1611 water sample distribution. **C)** *Enterococcus* EPA 1600 body immersion swimmer distribution. **D)** *Enterococcus* EPA qPCR 1611 body immersion swimmer distribution. All figures exclude 73 water samples from Malibu and Doheny beaches freshwater lagoons.

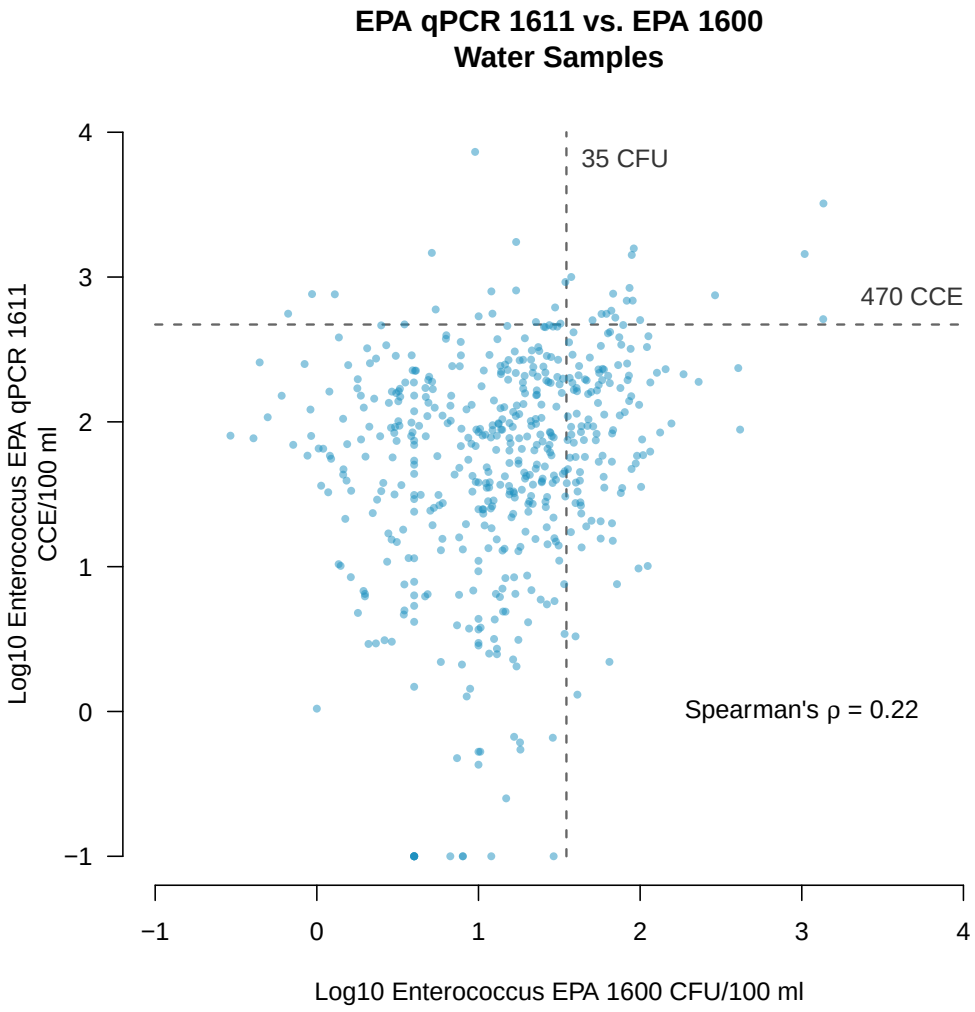

Figure S3: Scatter plot of *Enterococcus* EPA qPCR 1611 values versus *Enterococcus* EPA 1600 values in water samples. Figure excludes 73 water samples from Malibu and Doheny beaches freshwater lagoons.

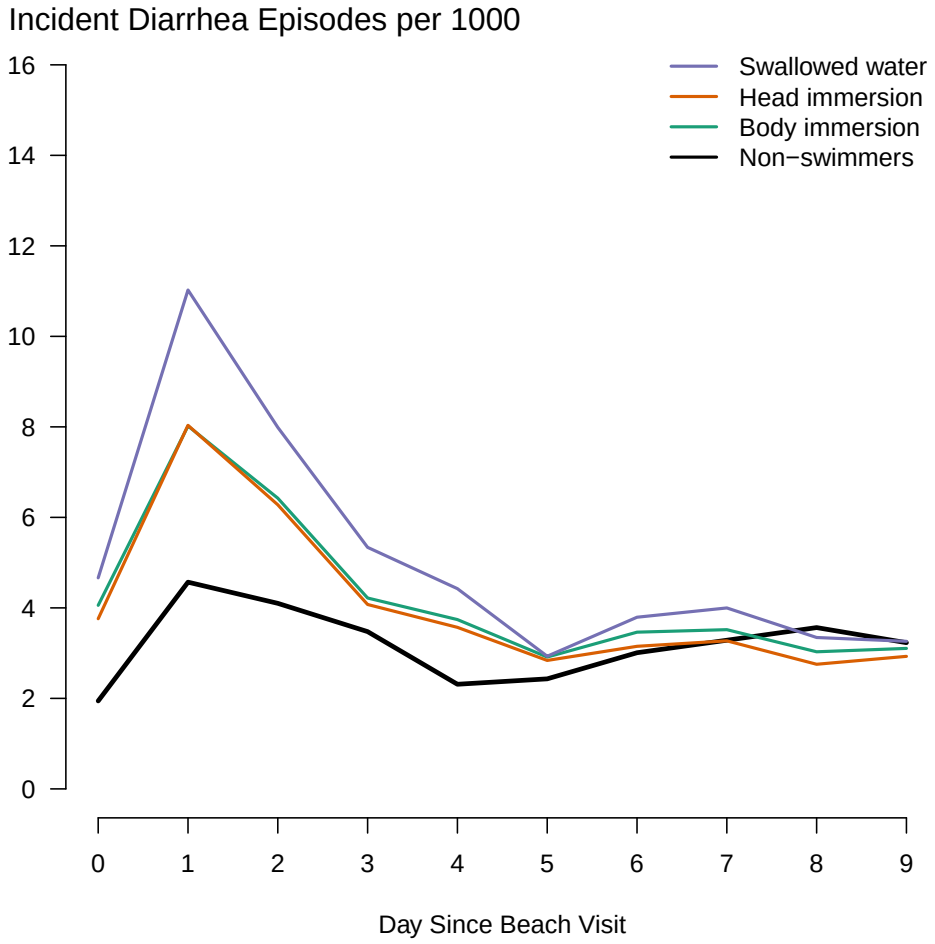

Figure S4: Daily Incidence of Diarrhea by Level of Water Exposure.

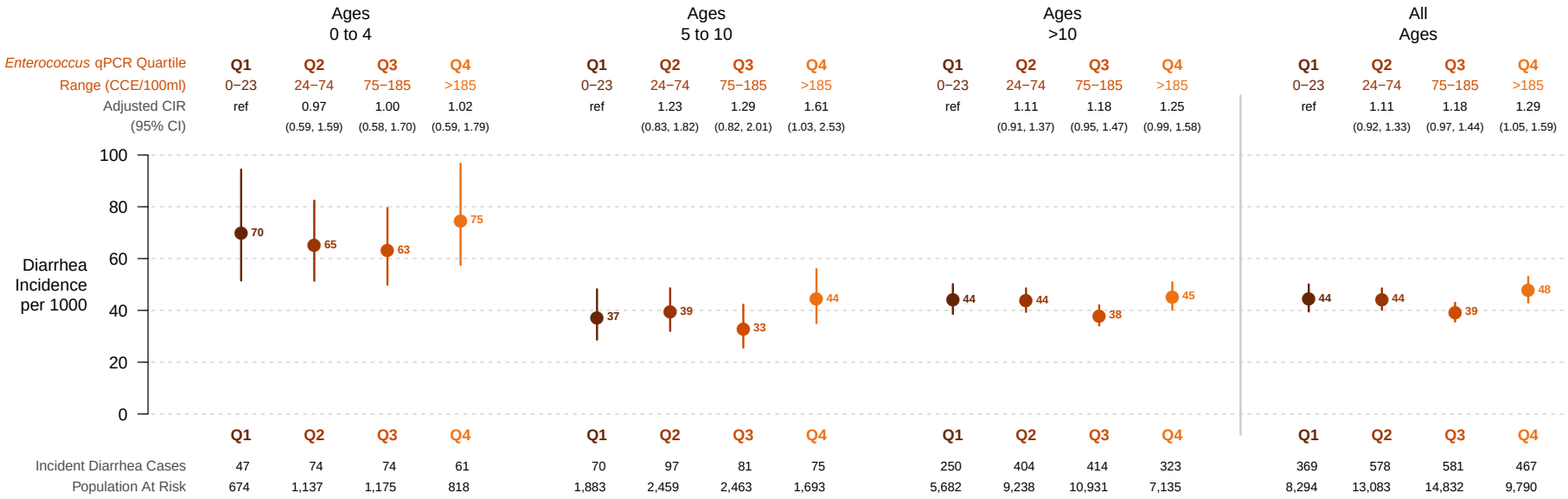

Figure S5: Incident Diarrhea Among Body Immersion Swimmers Associated with Quartiles of *Enterococcus* EPA qPCR 1611 Concentration, Stratified by Age. Cumulative Incidence Ratios (CIRs) are adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

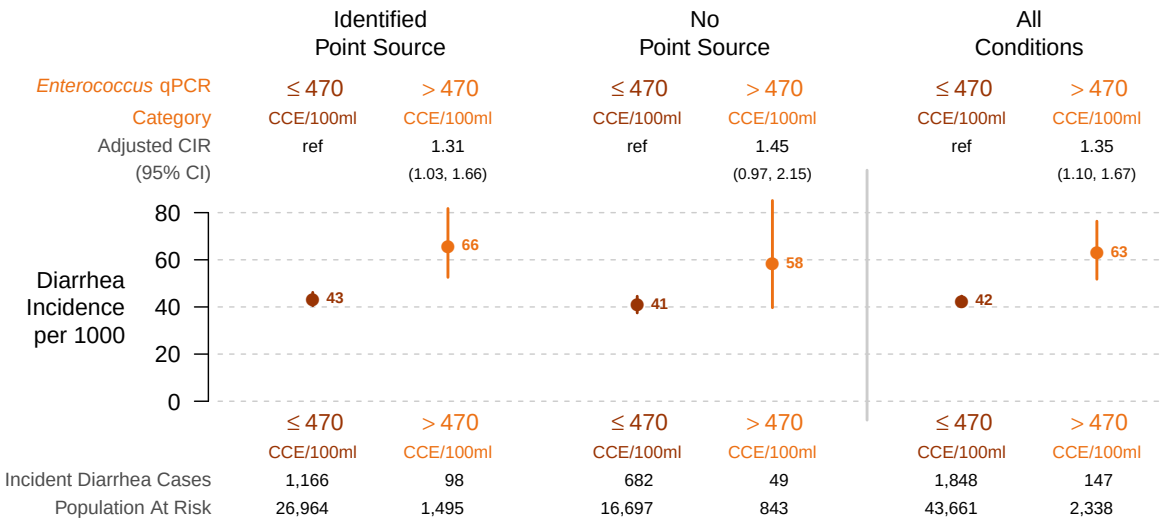

Figure S6: Incident Diarrhea Among Body Immersion Swimmers Associated with *Enterococcus* EPA qPCR 1611 Concentration Above and Below Regulatory Guidelines, Stratified by Beach Conditions. Point source beaches had an identified source of human sewage discharge nearby. Cumulative Incidence Ratios (CIRs) were adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

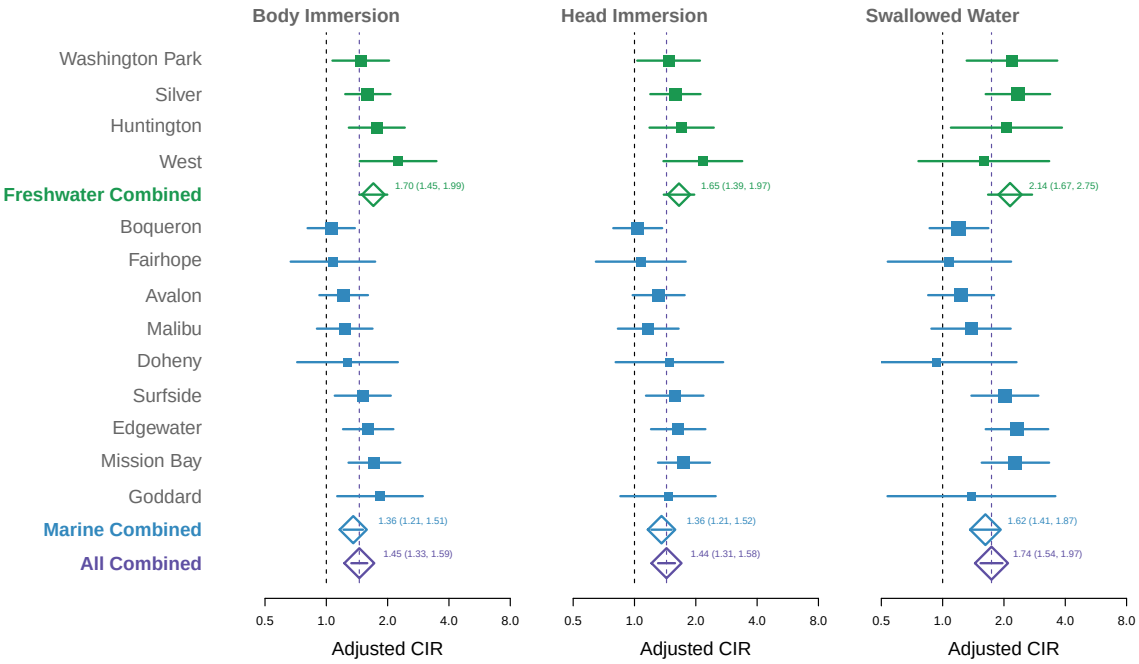

Figure S7: Forest Plot of Adjusted Cumulative Incidence Ratios (CIR) of Diarrhea Comparing Swimmers with Non-swimmers by Beach, Water Type, and Water Exposure Level. CIRs were adjusted for a range of potential confounders and beach level fixed-effects (see text for details). Beaches are sorted by water type and head immersion CIR.

Figure S8: Placeholder for *Enterococcus* beach-specific forest plot

Figure S9: Placeholder for *Enterococcus* 1600 and qPCR 1611 continuous exposure plots

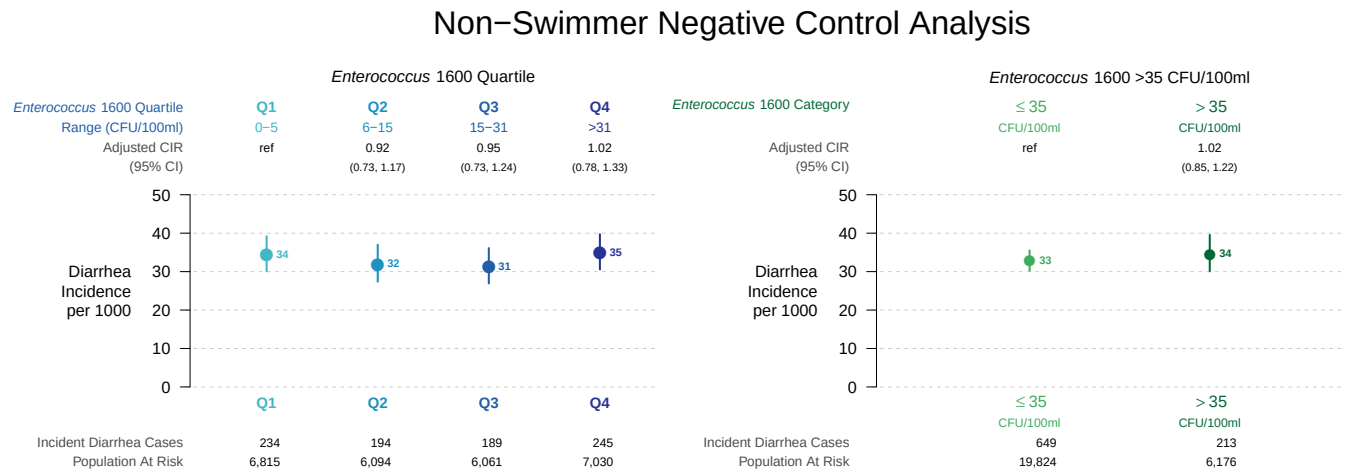

Figure S10: Negative control exposure analysis, matching *Enterococcus* EPA 1600 fecal indicator bacteria levels to non-swimmers by beach and date.

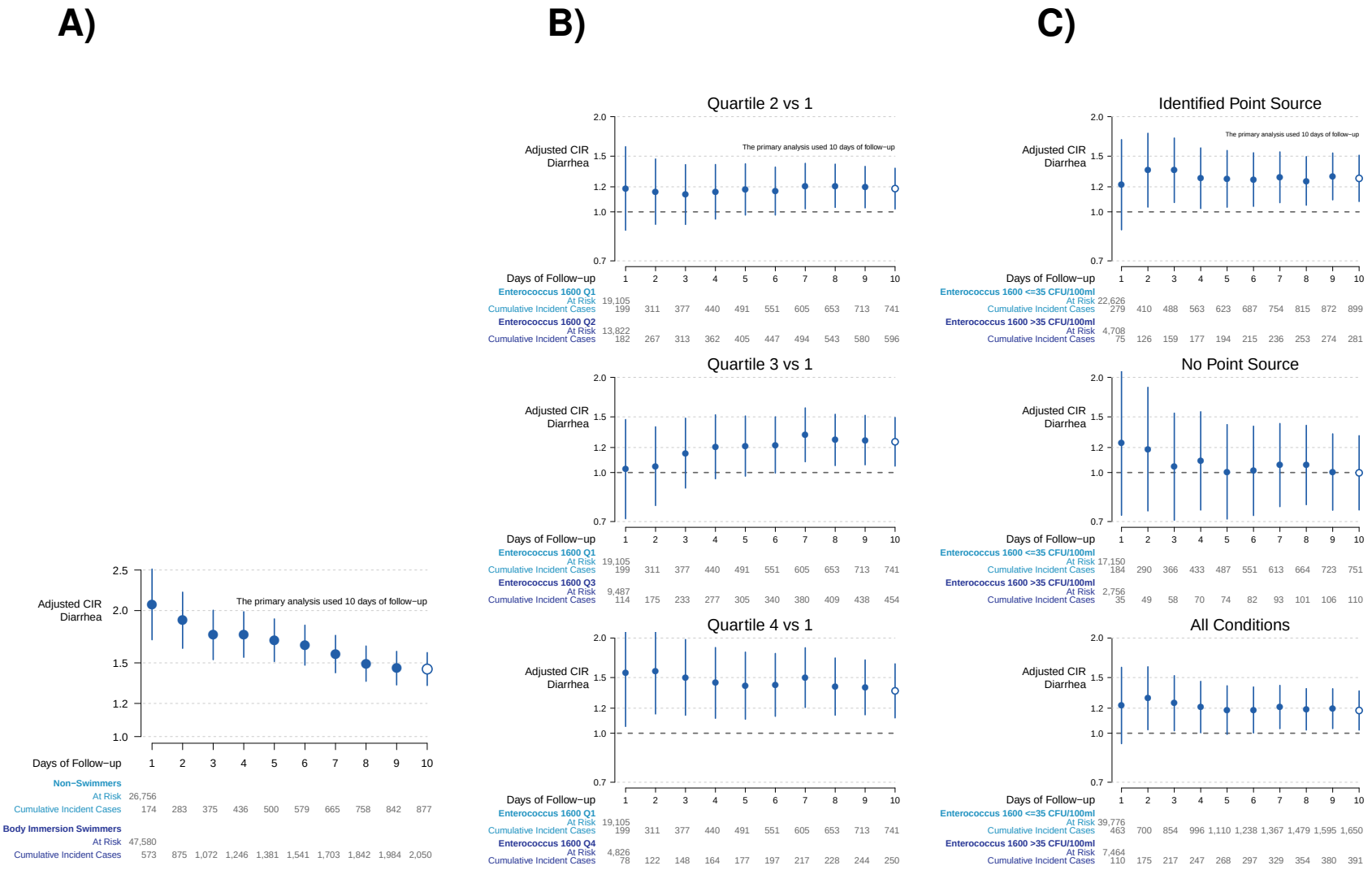

Figure S11: Sensitivity analysis of the length of follow-up period on cumulative incidence ratio (CIR) estimates. **A)** Body immersion swim exposure analysis. **B)** *Enterococcus* EPA 1600 quartile analysis. **C)** *Enterococcus* EPA 1600 >35 CFU/100ml analysis, stratified by beach type.