

Table 1: Population Attributable Risk Among Beachgoers Due to Body Immersion Swimming.

	N Events	N At Risk	Predicted Incidence ^a per 1000		Population Attributable Risk ^b (95% CI)		Population Attributable Fraction ^c (95% CI)	
			Observed Exposure	No Swim Exposure				
Diarrhea, episodes								
All Ages	3,409	86,058	40	31	8.3	(6.3, 10.2)	21%	(16%, 26%)
Age Stratified								
Ages 0 to 4	398	6,794	59	45	13.5	(3.1, 22.8)	23%	(5%, 39%)
Ages 5 to 10	393	11,251	35	19	15.8	(6.7, 24.0)	45%	(20%, 67%)
Ages >10	2,585	66,808	39	32	6.6	(4.7, 8.5)	17%	(12%, 22%)
Gastrointestinal illness ^d, episodes								
All Ages	5,024	86,058	58	50	8.8	(6.4, 11.3)	15%	(11%, 19%)
Age Stratified								
Ages 0 to 4	562	6,794	83	62	20.8	(9.2, 31.9)	25%	(11%, 39%)
Ages 5 to 10	697	11,251	62	51	10.7	(-2.8, 23.4)	17%	(-5%, 37%)
Ages >10	3,716	66,808	56	48	7.6	(5.4, 9.8)	14%	(10%, 18%)
Missed Daily Activities ^e, days								
All Ages	4,551	86,058	53	48	4.7	(0.1, 8.9)	9%	(0%, 17%)
Age Stratified								
Ages 0 to 4	445	6,794	68	42	26.7	(8.8, 42.7)	40%	(14%, 63%)
Ages 5 to 10	691	11,251	61	54	7.9	(-17.1, 28.5)	13%	(-27%, 47%)
Ages >10	3,377	66,808	51	46	4.1	(0.3, 8.2)	8%	(1%, 17%)
Missed Paid Work ^f, days								
All Ages ^h	1,051	86,058	12	13	-0.7	(-2.5, 1.2)	na	
Medical Visits ^g, events								
All Ages ^h	915	86,058	11	10	0.4	(-1.2, 1.9)	4%	(-11%, 18%)

a Predicted incidence per 1000 among all beachgoers under the empirical distribution of swim exposure (observed) and under a counterfactual scenario where nobody entered the water. Estimates are from a multivariable regression model adjusted for a range of potential confounders and beach level fixed-effects (see text for details).

b Population Attributable Risk is the number of events per 1000 beachgoers that would be prevented if swimming exposure were removed from the population. The proportion exposed to body immersion swimming was: all ages (55%), ages 0-4 (58%), ages 5-10 (80%), ages >10 (51%). Supplement File 1 Appendix 2 includes additional details.

c Population Attributable Fraction is the percentage of events among beachgoers attributable to body immersion swimming.

d Gastrointestinal illness was defined as (i) diarrhea or (ii) vomiting or (iii) stomach cramps and missed daily activities or (iv) nausea and missed daily activities.

e Includes days of school, work, or vacation missed because of gastrointestinal illness.

f Includes work days missed because of gastrointestinal illness.

g Includes phone consultations, outpatient visits, and emergency room visits due to gastrointestinal illness.

h Outcome incidence was too rare to calculate age-stratified estimates.