TABLE A7. ANALYSIS OF GASTROINTESTINAL (GI) AND HIGHLY CREDIBLE GASTROINTESTINAL (HCGI) SYMPTOM RATES BY DEMOGRAPHIC GROUPING

	GI Symptom Rates Per 100 Persons							
	Barely Acceptable Beach				Relatively Unpolluted Beach			
	GI		HCGI[8]		GI		HCGI	
Demographic Group	Swim	Nonswim	Swim	Nonswim	Swim	Nonswim	Swim	Nonswim
Total sample	42[6]	26	16	9.3	39	35	12	12
Children[1]	57[6,7]	14	24[6]	<4.5	23[6]	55	9.2[6]	28
Hispanic-American	45[6,7]	17	21[6,7]	7.6	24	12	5.6	3.0
High-Middle persons/rooms[2] Ratio	42[6]	16	14[6]	5.2	41	34	15	10
Adults[3]	37	29	13	11	42	32	12	9.5
Non-Hispanic-Americans[4]	38	35	10	11	43	39	13	13
Lowest persons/rooms Ratio[5]	42	45	21	17	37	35	9.1	13

[1] ≤10 yrs. old;
[2] ≥1.0 persons/rooms ratio;
[3] >10 yrs. old;
[4] white and black;
[5] <1.0 persons/rooms ratio;
[6] significantly different (P-0.05) than nonswimming control;
[7] significantly higher (P-.05) than RU swimmers;
[8] All instances of vomiting, diarrhea with fever or a "disabling" response, and nausea and stomachache with fever.

TABLE A8. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO ENTEROCOCCUS DENSITIES

Year	Beach and Date[1]	Enterococcus Density/100 ml Mean	Range
1973[2]	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	21.8	1.2-59
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	91.2	6-186
1974	R7/28, R8/18, R8/31	3.6	2-5
	R7/20, R7/21, C8/31	7.0	7
	C7/20, C7/28	13.5	10-17
	C7/21, C8/18	31.5	30-33
1975	A7/6, A7/5, A7/11, A7/19, A7/20 A7/27, B7/6, B7/19, B7/26, C6/19 C7/20, C7/27, D7/19, D7/20	5.7	2-11
	A8/2, B7/5, B7/27, B8/2, C7/5 C7/6, C7/26, C8/2, D8/2, D8/3	20.3	14-38
	A8/3, B7/20, B8/3, C8/3	154	86-298

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.
[2] 1973 trials clustered by beach.

TABLE A9. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *E. coli* DENSITIES

Year	Beach and Date[1]	*E. coli* Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	24.8	3-34
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	174	50-708
1974	R6/22, R7/21, R7/28, R8/18, R8/31 C8/31	2.2	1-4
	R7/20, C7/21, C7/28, C8/18	13.3	9-19
	C6/22, C7/20	30.5[2]	26-35
1976	A7/5, A7/6, A7/26, A7/27, B7/5, B7/6 B7/26, C7/5, C7/6, C7/26	46.8	22-89
	A7/19, A7/20, A8/3, C7/19, C7/20, D8/2	142	115-169
	A8/2, B7/20, B7/27, C8/2, C8/3 D7/19, D7/20, D8/3	278	208-356
	B7/19, B8/2, B8/3, C7/27	514	441-659

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.
[2] Arithmetic mean

TABLE A10. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO FECAL COLIFORM DENSITIES

Year	Beach and Date[1]	Fecal Coliform Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	21.5	6.2-34
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	165	49-431
1974	R7/28, R8/18	18[2]	17-19
	R6/22, R7/20, R7/21	38	29-50
	C7/20, C7/28	252[2]	231-273
	C7/21, C8/18	614[2]	528-701
	C6/22	2449	2449
1975	A7/5, A7/6, B7/6, C7/5, C7/6	42	28-68
	A7/19, A7/26, A7/27, B7/5, B7/26 C7/19, C7/20, C7/26, C8/2	169	107-228
	A7/20, A8/3, B7/27, D7/19, D8/2	324	273-372
	A8/2, B7/19, B7/20, B8/2, C7/27, D7/20	552	478-634
	B8/3, C8/3	1312[2]	800-1824

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2]Arithmetic mean

TABLE A11. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO TOTAL COLIFORM DENSITIES

Year	Beach and Date[1]	Total Coliform Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	39.8	14-68
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	983	256-5015
1974	R7/28, R8/18	28.0[2]	26-30
	R6/22, R7/20, R7/21	62.7	49-80
	C7/20, C7/21, C7/28	866	765-933
	C6/22, C8/18	2379[2]	1820-2938
1975	A7/6, C7/5, C7/6	109	92.9-141
	A7/5, A7/26, A7/27, B7/5, B7/6, B7/26	212	179-296
	A7/19, A8/2, A8/3, B7/20, B7/27 C7/19, C7/20, C7/26, C8/2, D8/2	576	391-765
	A7/20, B8/2, C7/27, D7/19, D8/3	1071	1007-1167
	B7/19, B8/3, C8/3, D7/20	2221	1332-3450

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2]Arithmetic mean

TABLE A12. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *Klebsiella* DENSITIES

Year	Beach and Date[1]	*Klebsiella* Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	13.7	1.2-15.3
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	122	49-1006
1974	R6/22, R7/20, R7/21, R7/28, R8/18, R8/31	4.0	2-11
	C7/27, C8/31	16[3]	11-21
	C7/20, C7/21	45[3]	38-52
	C6/22, C8/18	336[3]	199-473
1975	A7/5, A7/6, B7/26, C7/5, C7/16 C7/19, C7/26	21.8	8.9-36
	A7/26, A7/27, B7/5, B7/6, B7/27 C7/27	57.6	49-67
	A7/19, A8/3, B7/20, C8/2	130	100-159
	A8/2, B7/19, C7/20, D8/2	203	182-214
	A7/20, B8/2, B8/3, C8/3, D7/19 D7/20, D8/3	378	235-1780[2]

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2] All but one trial in range 235-389.

[3] Arithmetic mean

TABLE A13. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *Enterobacter-Citrobacter* DENSITIES

Year	Beach and Date[1]	*Entero-Citro.* Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	11.1	1-24
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	530	333-3612
1974	R7/28, R8/18	2.0	2
	R7/21, R8/31	7.5[2]	6-9
	R6/22, R7/20	20.0[2]	19-21
	C7/20, C7/21, C7/28	316	281-364
	C8/18, C8/31	485[2]	459-511
	C6/22	935	935
1975	A7/6, B7/5, B7/6, C7/5, C7/6	35.5	60-92
	A7/5, A7/26, A7/27, A8/3, B7/26 B7/27, C7/19, C8/2, D7/19	224	152-318
	A7/19, A7/20, A8/2, B7/20, C7/20, C7/26	376	338-407
	B8/2, C7/27, D8/2, D8/3	606	476-735
	B7/19, B8/3, C8/3, D7/20	1269	941-1979

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2] Arithmetic mean

TABLE A14. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *P. aeruginosa* DENSITIES

Year	Beach and Date[1]	*P. aeruginosa* Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	6.5	0.3-11
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	30.4	8-45
1974	R7/20, R8/18, R8/31	2.0	0-4
	R7/21, R7/28	6.0	6
	C7/20, C8/18, C8/31	22.0	16-24
	C7/28	60.0	60
	C7/21	377	377
1975	A7/19, A7/26, A7/27, B7/6, B7/26, C7/19	8.0	5.4-13.5
	A7/6, B7/19, B7/27, C7/6, C7/26	19.5	16.2-24.6
	A8/2, C7/20, C8/2, D8/2	34.2	30.2-37.2
	A7/20, A8/3, C7/27, D8/3	60.7	50.1-77.7
	B7/20, B8/2, B8/3, C8/3	173	100-661[2]

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.
[2] All but one trial in range 100-126.

TABLE A15. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *A. hydrophila* DENSITIES

Year	Beach and Date[1]	*A. hydrophila* Density/100 ml Mean	Range
1973	R7/14, R7/22, R7/28, R7/29, R8/11 R8/12, R8/18, R8/19	26.5	1-39
	C7/14, C7/22, C7/28, C7/29, C8/11 C8/12, C8/18, C8/19	25.3	1-244
1974	R7/20, R7/21, R7/28	1.7	1-3
	C7/20, C7/28, C8/31	5.0	5
	R8/18, C7/21	8.5[2]	7-10
	R6/22, R8/31, C6/22, C8/18	25.8	20-33
1975	B7/5, C7/5	2.4[2]	2.0-2.9
	A7/5, B7/6, B7/26, B7/27, C7/6, C7/27	40.9	18-75
	A7/6, A8/2, C7/19, C7/20, C7/26 C8/2, C8/3	140	104-163
	A7/26, A7/27, A8/3, B7/19 B8-2, B8/3	412	221-723
	A7/19, A7/20, B7/20	1182	899-1740

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2] Arithmetic mean

TABLE A16. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *C. perfringens* DENSITIES

Year	Beach and Date[1]	*C. perfringens* Density/100 ml Mean	Range
1974	R7/21, R7/28, R8/31, C7/21	3.8	2-5
	R8/18, C7/28, C8/18	10.3	10-11
	R7/20, C7/20, C8/31	32.7	24-47
	R6/22	351.	351
1975	A7/5, B7/27, C7/27	9.3	7.1-11
	A7/26, B7/6, C7/5	18.2	16-21
	A7/6, A7/27, A8/3, B7/5, B7/26 C7/6, C7/26, C8/3	28.7	25-33
	B7/19, B7/20, B8/3	68.6	48-91

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

TABLE A17. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *Staphylococcus* DENSITIES

Year	Beach and Date[1]	*Staphylococcus* Density/100 ml Mean	Range
1974	R8/31	32	32
	R8/18, C6/22, C8/31	112	98-137
	R6/22, R7/28, C7/28	189	177-210
	R7/20, C7/20, C8/18	344	303-398
	R7/21, C7/21	742[2]	558-926
1975	A7/5, A7/6, C7/5	11.7	5.5-32
	A7/19, A7/27, B7/5, B7/27, C7/6, C7/19	76.7	46-123
	B7/6, B7/19, B7/26, C7/20, C7/27	197	155-245
	A7/20, A7/26, A8/3, C8/2, C8/3	655	537-776
	A8/2, B7/20, B8/2, B8/3, C7/26	1572	955-4070

[1] R — Rockaway; C — Coney Island; D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2] Arithmetic mean

TABLE A18. MEAN AND RANGE OF NEW YORK CITY TRIALS CLUSTERED ACCORDING TO *V. parahaemolyticus* DENSITIES

Year	Beach and Date[1]	*V. parahaemolyticus* Density/100 ml	
		Mean	Range
1974	R7/21, C7/21	9.5[2]	5-14
	R7/28, R8/18, C7/28, C8/18	36.6	28-61
	R8/31, C8/31	309[2]	249-368
1975	A7/5, A7/6, A7/27, B7/5, B7/6 B7/27, C7/5, C7/6, C7/27	3.8	1.5-10.6
	A7/19, A7/26, B7/19, B7/26, C7/19 C7/26, C8/2, C8/3	35.5	23-68
	A8/2, B7/20, B8/2, C7/20	121	82-189
	A7/20, A8/3, B8/3	444	431-463

[1] R — Rockaway; C — Coney Island, D — 34th-38th Streets, Coney Island; A — 18th-24th Streets, Coney Island; B — 8th-10th Streets, Coney Island; C — 2nd-4th Streets, Brighton, Coney Island.

[2] Arithmetic mean

TABLE A19. GASTROINTESTINAL (GI) AND HIGHLY CREDIBLE GI (HCGI) SYMPTOM RATES FOR NEW YORK CITY TRIALS CLUSTERED BY ENTEROCOCCUS DENSITIES

Year	Enterococcus Density/100 ml	N Swim[1]	N Nonswim[2]	Rate/GI Symptoms Swim (Per 1000 Persons)	Rate/GI Symptoms Nonswim (Per 1000 Persons)	Rate/GI Symptoms ▲[3]	Rate/HCGI Symptoms Swim (Per 1000 Persons)	Rate/HCGI Symptoms Nonswim (Per 1000 Persons)	Rate/HCGI Symptoms ▲
1973	21.8	484	197	81	46	35	30	15	15
	91.2	474	167	72	24	48*	46	18	28
1974	3.6	1441	711	27	23	4	7.6	4.2	3.4
	7.0	951	1009	38	34	4	10.5	6.9	3.6
	13.5	625	419	42	17	25*	16.0	2.4	13.6
	31.5	831	440	43	23	20	18.1	—	18.1*
1975	5.7	2232	935	63	55	8	18.8	19.3	−0.5
	20.3	1896	678	59	37	22*	14.8	7.4	7.4
	154	579	191	60	31	29	34.5	—	34.5*

[1] Swimmer.
[2] Nonswimmer.
[3] Swimming-Associated (swimmer-nonswimmer).
*p<.05; **p<.01.

Note: Yearly totals for values of N on Tables A19-A28 may not agree with those in Table 3 because data for one or more indicators were not availble for all trial dates.

TABLE A20. GASTROINTESTINAL (GI) AND HIGHLY CREDIBLE GI (HCGI) SYMPTOM RATES FOR NEW YORK CITY TRIALS CLUSTERED BY *E. coli* DENSITIES

Year	*E. coli* Density/100 ml	N Swim[1]	N Nonswim[2]	Rate/GI Symptoms Swim Per 1000 Persons	Rate/GI Symptoms Nonswim Per 1000 Persons	▲[3]	Rate/HCGI Symptoms Swim Per 1000 Persons	Rate/HCGI Symptoms Nonswim Per 1000 Persons	▲
1973	24.8	484	197	81	46	35	30	15	15
	174	474	167	72	24	48*	46	18	28
1974	2.5	2514	1641	25	34	−9	8.0	3.7	4.3
	13.8	1304	1045	38	29	9	14.1	5.7	8.4*
	30.5	600	425	65	33	32*	23.3	2.4	20.9*
1975	46.8	1945	1099	55	51	4	13.4	17.8	−4.4
	142	775	194	76	41	35	24.5	10.3	14.2
	278	1049	330	55	24	31*	21.0	3.0	18.0*
	514	937	271	68	55	13	24.5	7.4	17.1

[1] Swimmer.
[2] Nonswimmer.
[3] Swimming-Associated (swimmer-nonswimmer).
*$p<.05$; **$p<.01$.