Estimands and Inference in Cluster-Randomized Vaccine Trials Supporting Information

Kayla W. Kilpatrick, Michael G. Hudgens, and M. Elizabeth Halloran

Simulated Dataset

We have the following simulated dataset that matches exactly the cluster level summary statistics given in Table 1. Here, treat=0 represents hepatitis A vaccine, and treat=1 represents Vi vaccine. Participants are represented with s1 and non-participants are represented with s0. An event is represented with y1; for example, n_y1 is the total number of events for a cluster.

cluster	treat	n	n_s1	n_s0	n_s1_y1	n_s0_y1	n_y1
1	0	543	294	249	1	0	1
2	0	586	280	306	0	1	1
3	0	578	314	264	1	2	3
4	0	571	329	242	2	1	3
5	0	625	340	285	6	1	7
6	0	625	365	260	3	2	5
7	0	603	375	228	1	1	2
8	0	643	367	276	2	0	2
9	0	706	382	324	2	0	2
10	0	658	351	307	1	1	2
11	0	697	408	289	5	0	5
12	0	673	395	278	3	2	5
13	0	704	386	318	3	1	4
14	0	733	440	293	4	2	6
15	0	716	421	295	2	1	3
16	0	780	424	356	3	0	3
17	0	776	458	318	3	1	4
18	0	744	418	326	0	0	0
19	0	799	471	328	0	1	1
20	0	776	440	336	2	1	3
21	0	761	482	279	2	0	2
22	0	763	486	277	2	2	4
23	0	897	478	419	3	0	3
24	0	773	511	262	4	2	6
25	0	807	513	294	1	0	1

Continued on next page

cluster	treat	n	n_s1	n_s0	n_s1_v1	n c0 v1	n_y1
26	0	818	484	334	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n_s0_y1 1	$\frac{\mathbf{n_{-}y1}}{2}$
20 27	0	885	549	336	1	0	1
28	0	872	517	355	1	$\frac{0}{2}$	3
29	0	925	551	374	2	0	2
30	0	940	509	431	0	$\frac{0}{2}$	$\frac{2}{2}$
31	0	933	599	334	1	0	1
32	0	902	564	338	5	0	5
33	0	925	612	313	7	1	8
34	0	1001	582	419	4	0	$\frac{3}{4}$
35	0	932	608	324	2	0	2
36	0	937	639	298	3	1	$\frac{2}{4}$
37	0	1003	619	384	3	0	3
38	0	1028	620	408	4	0	4
39	0	1003	605	398	3	1	4
40	0	1040	618	422	3	1	4
41	1	567	296	271	0	0	0
42	1	547	309	238	0	0	0
43	1	588	298	290	0	0	0
44	1	613	322	291	1	0	1
45	1	594	337	257	0	0	0
46	1	546	354	192	0	0	0
47	1	633	362	271	2	0	2
48	1	587	384	203	1	0	1
49	1	656	371	285	3	1	4
50	1	711	389	322	0	0	0
51	1	665	367	298	1	1	2
52	1	679	397	282	0	2	2
53	1	698	393	305	1	1	2
54	1	698	461	237	0	0	0
55	1	698	399	299	3	1	4
56	1	730	465	265	0	0	0
57	1	736	463	273	2	0	2
58	1	723	435	288	1	0	1
59	1	787	458	329	3	0	3
60	1	776	460	316	0	0	0
61	1	799	462	337	1	1	2
62	1	789	510	279	1	0	1
63	1	811	463	348	0	0	0
64	1	872	500	372	0	0	0
65	1	845	503	342	3	1	4
66	1	826	514	312	0	0	0
67	1	826	526	300	0	3	3
68	1	891	551	340	0	0	0
69	1	823	520	303	1	1	2

Continued on next page

cluster	treat	n	n_s1	n_s0	n_s1_y1	n_s0_y1	n_y1
70	1	901	588	313	1	0	1
71	1	876	569	307	1	1	2
72	1	916	554	362	1	0	1
73	1	960	585	375	1	1	2
74	1	938	582	356	1	0	1
75	1	948	596	352	1	0	1
76	1	924	594	330	0	0	0
77	1	952	615	337	1	2	3
78	1	928	625	303	0	0	0
79	1	1024	647	377	1	0	1
80	1	994	645	349	2	0	2