COVARIATE-CONSTRAINED RANDOMIZATION
Allocations satisfying the within-stratum criteria
Acceptable allocations per stratum

sid	Possible allocations	Checked allocations	Fraction checked	Acceptable allocations	% acceptable of checked
1	70	70	1	38	54.286%
2	70	70	1	40	57.143%
3	924	924	1	240	25.974%
4	252	252	1	180	71.429%
5	924	924	1	504	54.545%
6	70	70	1	40	57.143%
7	70	70	1	70	100.000%
8	20	20	1	12	60.000%
9	70	70	1	40	57.143%
10	252	252	1	72	28.571%
OVERALL	1.8225E21	1.8225E21	1	3.2025E18	0.176%

COVARIATE-CONSTRAINED RANDOMIZATION
Allocations satisfying the within-stratum criteria
Distribution by discrete covariates

sid	_s1lev1	_s2lev1	_sd1_2lev1	Frequency
1	0	1	-1	19
1	1	0	1	19
2	1	1	0	40
3	2	3	-1	120
3	3	2	1	120
4	2	3	-1	90
4	3	2	1	90
5	0	1	-1	252
5	1	0	1	252
6	0	1	-1	20
6	1	0	1	20
7	3	4	-1	35
7	4	3	1	35
8	0	0	0	12
9	1	1	0	40
10	2	2	0	72

sid	_s1lev2	_s2lev2	_sd1_2lev2	Frequency
1	2	3	-1	19
1	3	2	1	19
2	2	3	-1	20
2	3	2	1	20
3	2	2	0	240
4	0	1	-1	90
4	1	0	1	90
5	0	1	-1	252
5	1	0	1	252
6	1	1	0	40
7	0	1	-1	35
7	1	0	1	35
8	0	1	-1	6
8	1	0	1	6

COVARIATE-CONSTRAINED RANDOMIZATION
Allocations satisfying the within-stratum criteria
Distribution by discrete covariates

sid	_s1lev2	_s2lev2	_sd1_2lev2	Frequency
9	2	3	-1	20
9	3	2	1	20
10	2	2	0	72

sid	_s1lev3	_s2lev3	_sd1_2lev3	Frequency
1	1	1	0	38
2	0	1	-1	20
2	1	0	1	20
3	1	1	0	240
4	1	2	-1	90
4	2	1	1	90
5	5	5	0	504
6	2	3	-1	20
6	3	2	1	20
7	0	0	0	70
8	2	2	0	12
9	0	1	-1	20
9	1	0	1	20
10	0	1	-1	36
10	1	0	1	36

COVARIATE-CONSTRAINED RANDOMIZATION
Allocations satisfying the within-stratum criteria
Differences of continuous covariates

			Analysis Variable : _sad1_2covar			
sid	N Obs	Minimum	25th Pctl	Median	75th Pctl	Maximum
1	38	0.0071288	0.0281280	0.0501432	0.0853999	0.1497754
2	40	0.0040280	0.0259232	0.0534323	0.1125424	0.1451981
3	240	0.000159964	0.0152102	0.0312289	0.0526490	0.1106189
4	180	0.000901546	0.0143575	0.0540695	0.0660645	0.0906428
5	504	0.0084185	0.0365570	0.0499494	0.0633418	0.0914803
6	40	0.0016165	0.0147758	0.0347481	0.0454650	0.0926959
7	70	0.000038529	0.0182594	0.0456201	0.0786834	0.1330974
8	12	0.0178866	0.0413125	0.0706126	0.1237739	0.1358495
9	40	0.000822448	0.0067710	0.0351657	0.0589906	0.0968185
10	72	0.0031985	0.0108176	0.0241158	0.0412382	0.0763507

COVARIATE-CONSTRAINED RANDOMIZATION
Frequency of satisfactory overall allocations

Stratum-balanced allocations	Checked allocations	Fraction checked	Acceptable allocations	% acceptable of checked	Overall % acceptable
3.2025E18	100000	3.123E-14	7813	7.813%	0.014%

COVARIATE-CONSTRAINED RANDOMIZATION
Distribution of satisfactory allocations
on discrete covariates

_o1lev1	_o2lev1	_od1_2lev1	Frequency
14	14	0	7813

_o1lev2	_o2lev2	_od1_2lev2	Frequency
14	15	-1	3894
15	14	1	3919

_o1lev3	_o2lev3	_od1_2lev3	Frequency
14	15	-1	3919
15	14	1	3894

COVARIATE-CONSTRAINED RANDOMIZATION
Distribution of satisfactory allocations
on continuous covariates

Analysis Variable : _oad1_2covar				
Minimum	**25th Pctl**	**Median**	**75th Pctl**	**Maximum**
0.0114572	11.6282248	24.7562220	42.4263613	131.5184114

COVARIATE-CONSTRAINED RANDOMIZATION
How often a cluster appears with another cluster in the same/different arm in randomizations satisfying the overall criteria
(stats omit cases of full constraint; see next tables)

Variable	Mean	Std Dev	Minimum	25th Pctl	Median	75th Pctl	Maximum
_samecount	3866.8890	195.1354	2447.0000	3863.0000	3902.0000	3937.0000	4928.0000
_samefrac	0.4949	0.0250	0.3132	0.4944	0.4994	0.5039	0.6307
_diffcount	3946.1110	195.1354	2885.0000	3876.0000	3911.0000	3950.0000	5366.0000
_difffrac	0.5051	0.0250	0.3693	0.4961	0.5006	0.5056	0.6868

COVARIATE-CONSTRAINED RANDOMIZATION
Clusters constrained to different arms in all randomizations

cluster pair	% allocs in same arm
102 and 104	0.00%
201 and 207	0.00%
301 and 305	0.00%
503 and 504	0.00%
605 and 606	0.00%
907 and 908	0.00%

Selected overall randomization
Allocation checks

							lev1				
	# clusters				total		mean				
	arm		arm		difference	fractional difference	arm		difference	fractional difference
stratum	1	2	1	2	1-2	1-2	1	2	1-2	1-2
1	4	4	1	0	1	1	0.25	0	0.25	2
2	4	4	1	1	0	0	0.25	0.25	0	0
3	5	6	2	3	-1	-0.2	0.4	0.5	-0.1	-0.22
4	5	4	3	2	1	0.2	0.6	0.5	0.1	0.18
5	6	6	1	0	1	1	0.1666667	0	0.1666667	2
6	4	4	0	1	-1	-1	0	0.25	-0.25	-2
7	4	4	3	4	-1	-0.142857	0.75	1	-0.25	-0.285714
8	3	2	0	0	0	0	0	0	0	0
9	4	4	1	1	0	0	0.25	0.25	0	0
10	4	5	2	2	0	0	0.5	0.4	0.1	0.225
OVERALL	43	43	14	14	0	0	0.3255814	0.3255814	0	0

Selected overall randomization
Allocation checks

| | # clusters | | | | total | | mean | | | |
| | arm | | arm | | difference | fractional difference | arm | | difference | fractional difference |
stratum	1	2	1	2	1-2	1-2	1	2	1-2	1-2
1	4	4	2	3	-1	-0.2	0.5	0.75	-0.25	-0.4
2	4	4	2	3	-1	-0.2	0.5	0.75	-0.25	-0.4
3	5	6	2	2	0	0	0.4	0.3333333	0.0666667	0.1833333
4	5	4	0	1	-1	-1	0	0.25	-0.25	-2.25
5	6	6	0	1	-1	-1	0	0.1666667	-0.166667	-2
6	4	4	1	1	0	0	0.25	0.25	0	0
7	4	4	1	0	1	1	0.25	0	0.25	2
8	3	2	1	0	1	1	0.3333333	0	0.3333333	1.6666667
9	4	4	3	2	1	0.2	0.75	0.5	0.25	0.4
10	4	5	2	2	0	0	0.5	0.4	0.1	0.225
OVERALL	*43*	*43*	*14*	*15*	*-1*	*-0.034483*	*0.3255814*	*0.3488372*	*-0.023256*	*-0.068966*

(header spanning "lev2" over total and mean sections)

Selected overall randomization
Allocation checks

	# clusters				total		mean lev3			
	arm		arm		difference	fractional difference	arm		difference	fractional difference
stratum	1	2	1	2	1-2	1-2	1	2	1-2	1-2
1	4	4	1	1	0	0	0.25	0.25	0	0
2	4	4	1	0	1	1	0.25	0	0.25	2
3	5	6	1	1	0	0	0.2	0.1666667	0.0333333	0.1833333
4	5	4	2	1	1	0.3333333	0.4	0.25	0.15	0.45
5	6	6	5	5	0	0	0.8333333	0.8333333	0	0
6	4	4	3	2	1	0.2	0.75	0.5	0.25	0.4
7	4	4	0	0	0	0	0	0	0	0
8	3	2	2	2	0	0	0.6666667	1	-0.333333	-0.416667
9	4	4	0	1	-1	-1	0	0.25	-0.25	-2
10	4	5	0	1	-1	-1	0	0.2	-0.2	-1.8
OVERALL	*43*	*43*	*15*	*14*	*1*	*0.0344828*	*0.3488372*	*0.3255814*	*0.0232558*	*0.0689655*

Selected overall randomization
Allocation checks

	# clusters		covar							
			total				mean			
	arm		arm		difference	fractional difference	arm		difference	fractional difference
stratum	1	2	1	2	1-2	1-2	1	2	1-2	1-2
1	4	4	8019.022	7677.625	341.39698	0.0217497	2004.7555	1919.4063	85.349246	0.0434994
2	4	4	8032.6203	7955.976	76.644295	0.0047937	2008.1551	1988.994	19.161074	0.0095874
3	5	6	10170.414	12131.815	-1961.401	-0.087946	2034.0828	2021.9692	12.113603	0.0059747
4	5	4	10135.604	7540.685	2594.9195	0.1468023	2027.1209	1885.1712	141.94964	0.0722746
5	6	6	11417.902	12095.304	-677.4019	-0.028809	1902.9836	2015.8839	-112.9003	-0.057619
6	4	4	8195.3026	7551.3512	643.95141	0.0408945	2048.8257	1887.8378	160.98785	0.081789
7	4	4	7976.8482	8738.4815	-761.6333	-0.045565	1994.212	2184.6204	-190.4083	-0.09113
8	3	2	5732.9109	4124.1601	1608.7508	0.1632078	1910.9703	2062.08	-151.1097	-0.07665
9	4	4	8332.3305	7926.2964	406.03413	0.0249735	2083.0826	1981.5741	101.50853	0.0499469
10	4	5	8040.8156	10203.104	-2162.289	-0.118521	2010.2039	2040.6209	-30.41696	-0.015005
OVERALL	43	43	86053.77	85944.798	108.97208	0.0006336	2001.2505	1998.7162	2.5342344	0.0012671