

Supplemental Table 1. Results from full logistic regression model using data from 1995 to 2013 (n=7,313 with complete data).

	Odds Ratio	95% Confidence Interval	P-value
Year	1.08	(1.04, 1.12)	<0.001
Funding Agency			
Industry	Reference		
NIH	2.38	(1.42, 4.00)	0.001
U.S. Federal Government	2.56	(1.44, 4.57)	0.001
Combination of the above	2.92	(2.01, 4.24)	<0.001
Other	2.46	(1.67, 3.62)	<0.001
Study Type			
Expanded Access	Omitted*		
Interventional	Reference		
Observational	0.82	(0.61, 1.12)	0.21
Intervention			
Behavioral	Reference		
Biological	0.02	(0.01, 0.07)	<0.001
Device	0.13	(0.08, 0.21)	<0.001
Dietary Supplement	0.13	(0.06, 0.28)	<0.001
Drug	0.14	(0.11, 0.19)	<0.001
Genetic	0.09	(0.01, 0.67)	0.018
Other	0.34	(0.25, 0.46)	<0.001
Procedure	0.19	(0.12, 0.29)	<0.001
Radiation	0.02	(0.01, 0.07)	0.001
Phase			
Phase 0	Reference		
Phase 1	0.67	(0.27, 1.71)	0.41
Phase 1 Phase 2	0.58	(0.21, 1.56)	0.28
Phase 2	0.56	(0.23, 1.39)	0.21
Phase 2 Phase 3	1.09	(0.37, 3.21)	0.87
Phase 3	1.01	(0.4, 2.55)	0.99
Phase 4	1.16	(0.46, 2.94)	0.75
Other	0.81	(0.34, 1.95)	0.64
Sex			
Both	Reference		
Female	1.07	(0.8, 1.43)	0.63
Male	0.69	(0.4, 1.19)	0.19
Region Opened			
Midwest	Reference		
Northeast	1.08	(0.78, 1.50)	0.65
South	0.79	(0.57, 1.09)	0.15
West	0.99	(0.67, 1.48)	0.98

Multi-region	0.75	(0.51, 1.09)	0.13
Percent responding that they speak English only (ZIP-code)			
Linear spline term for each 10% increase	1.23	(0.88, 1.72)	0.23
Cubic spline term for each 10% increase	0.76	(0.55, 1.05)	0.09
Percent responding that they speak English less than “very well” (ZIP-code)			
Linear spline term for each 10% increase	0.94	(0.43, 2.08)	0.88
Cubic spline term for each 10% increase	1.37	(0.49, 3.88)	0.55
Poverty Rate (ZIP-code)			
Linear spline term for each 10% increase	1.19	(0.91, 1.56)	0.22
Cubic spline term for each 10% increase	0.80	(0.57, 1.12)	0.20
Percent responding that they are White (ZIP-code)			
Linear spline term for each 10% increase	1.73	(0.82, 3.66)	0.15
Cubic spline term for each 10% increase	0.99	(0.83, 1.18)	0.91
Percent responding that they are Black/African American (ZIP-code)			
Linear spline term for each 10% increase	1.55	(0.69, 3.52)	0.29
Cubic spline term for each 10% increase	1.22	(0.71, 2.09)	0.48
Percent responding that they are Asian (ZIP-code)			
Linear spline term for each 10% increase	1.49	(0.59, 3.78)	0.40
Cubic spline term for each 10% increase	1.24	(0.56, 2.72)	0.59
Percent responding that they are Hispanic (ZIP-code)			
Linear spline term for each 10% increase	2.02	(0.80, 5.07)	0.14
Cubic spline term for each 10% increase	0.67	(0.30, 1.47)	0.32
Intercept	<.001	(<.001, <.001)	<0.001

*The expanded access category was omitted due to a small sample size and zero cell: none of the 12 expanded access trials had English fluency restrictions.

Supplemental Table 2. Results from interaction of year with type of intervention. The likelihood ratio test for the six intervention terms was $\chi^2=17.1$, 6 degrees of freedom, $p=0.009$. Similar interaction tests with funding agency, study type, phase of trial, genders included, region, and ZIP-code demographic characteristics were not statistically significant. To confirm that outliers from early years were not affecting the results below, we repeated this analysis for studies opened only in later time periods. We found that $p=0.036$ when only including studies opened after 1994, and $p=0.008$ when only including studies opened after 2004. The likelihood ratio test for the interactions when added to the full model in Supplemental Table 1 was $\chi^2=14.0$, 6 degrees of freedom, $p=0.030$. In this analysis, year is centered to be zero at 2000.

	Odds Ratio	95% Confidence Interval	P- value
Intervention			
Procedure	Reference		
Behavioral	2.76	(1.45,5.23)	0.002
Biological	0.003	(0.00003,0.35)	0.017
Device	0.23	(0.06,0.84)	0.026
Dietary Supplement	0.001	(0.00001,0.27)	0.015
Drug	0.28	(0.15,0.53)	<0.001
Other	0.53	(0.26,1.05)	0.07
Year – 2000	1.00	(0.93,1.07)	0.90
Interaction terms			
Procedure x (Year – 2000)	Reference		
Behavioral x (Year – 2000)	1.08	(0.995,1.17)	0.065
Biological x (Year – 2000)	1.41	(0.89,2.25)	0.15
Device x (Year – 2000)	1.14	(0.98,1.31)	0.083
Dietary Supplement x (Year – 2000)	1.88	(1.14,3.1)	0.014
Drug x (Year – 2000)	1.07	(0.99,1.16)	0.10
Other x (Year – 2000)	1.13	(1.04,1.23)	0.005
Intercept	0.08	(0.05,0.14)	<0.001

Supplemental Figure 1: Scatter plots of the pairwise proportions reporting each demographic characteristic within ZIP codes. The four proportions do not sum to one since those reporting more than one race or reporting another race are not included in these four groups. The Spearman correlations and p-values are given at the top of each subfigure.

