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Supporting Information

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Supplementary Table 1. Sex-specific logistic regression analysis of *Toxoplasma gondii* (Nicolle et Manceaux, 1908) seropositivity predicting substance use in US adults, third NHANES (1988–1994): Odds ratios from weighted logistic regression.

	Tobacco			Alcohol			Marijuana			Cocaine		
	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
T. gondii seropositive	0.95	[0.79; 1.16]	0.614	1.00	[0.84; 1.19]	0.982	0.69	[0.51; 0.94]	0.020	0.69	[0.44; 1.09]	0.112
Male	1.98	[1.75; 2.23]	<0.001	3.08	[2.54; 3.74]	<0.001	1.80	[1.54; 2.10]	<0.001	1.94	[1.54; 2.45]	<0.001
T. gondii x male Interaction	1.31	[1.01; 1.71]	0.046	1.29	[0.92; 1.81]	0.142	1.04	[0.67; 1.62]	0.863	1.05	[0.51; 2.13]	0.900
Sex-specific *T. gondii* ORs												
Females	0.95	[0.79; 1.16]	0.614	1.00	[0.84; 1.19]	0.982	0.69	[0.51; 0.94]	0.020	0.69	[0.44; 1.09]	0.112
Males	1.25	[1.01; 1.54]	0.039	1.29	[0.92; 1.79]	0.136	0.72	[0.54; 0.97]	0.030	0.73	[0.49; 1.07]	0.107
Age (years)	1.01	[1.00; 1.01]	<0.001	0.99	[0.99; 1.00]	0.008	0.95	[0.94; 0.96]	<.001	0.97	[0.96; 0.98]	<0.001
Education (years)	0.94	[0.91; 0.96]	<0.001	1.09	[1.06; 1.12]	<0.001	1.05	[1.02; 1.08]	0.001	0.98	[0.95; 1.02]	0.361
Race-ethnicity												
Non-Hispanic White (ref)	-	-	-	-	-	-	-	-	-	-	-	-
Non-Hispanic Black	0.63	[0.54; 0.74]	<0.001	0.63	[0.49; 0.80]	<0.001	0.95	[0.81; 1.12]	0.541	0.96	[0.74; 1.26]	0.781
Mexican-American	0.41	[0.35; 0.48]	<0.001	0.78	[0.60; 1.01]	0.060	0.50	[0.42; 0.60]	<0.001	0.66	[0.51; 0.85]	0.002
Other	0.43	[0.33; 0.56]	<0.001	0.31	[0.21; 0.46]	<0.001	0.31	[0.23; 0.42]	<0.001	0.75	[0.48; 1.16]	0.190
Poverty-Income Ratio	0.96	[0.93; 0.99]	0.026	1.17	[1.10; 1.24]	<0.001	1.03	[0.98; 1.07]	0.239	1.03	[0.97; 1.10]	0.350
Constant	1.81	[1.34; 2.45]	<0.001	1.62	[0.99; 2.65]	0.053	2.42	[1.53; 3.84]	<0.001	0.43	[0.25; 0.72]	0.002
Sample size		14,158			13,814			9,791			9,789	

OR – odds ratio; CI – confidence interval; ref – reference category; NHANES – National Health and Nutrition Examination Survey; Other – non-Mexican-American Hispanics, Asian-Americans and multi-racial subjects

Supplementary Table 2. Sex-specific logistic regression analysis of *Toxoplasma gondii* (Nicolle et Manceaux, 1908) seropositivity predicting substance use in US adults, continuous NHANES 2009–2014: Odds ratios from weighted logistic regression.

	Tobacco			Alcohol			Marijuana		
	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
T. gondii seropositive	0.79	[0.63; 1.00]	0.046	0.87	[0.71; 1.05]	0.142	0.51	[0.37; 0.70]	<0.001
Male	1.62	[1.46; 1.81]	<0.001	2.26	[1.89; 2.70]	<0.001	1.53	[1.36; 1.72]	<0.001
T. gondii x Male Interaction	1.19	[0.89; 1.60]	0.237	1.46	[1.00; 2.13]	0.048	1.37	[0.89; 2.11]	0.145
Sex-specific *T. gondii* ORs									
Females	0.79	[0.63; 1.00]	0.046	0.87	[0.71; 1.05]	0.142	0.51	[0.37; 0.70]	<0.001
Males	0.94	[0.79; 1.12]	0.489	1.26	[0.85; 1.87]	0.235	0.70	[0.54; 0.89]	0.005
Age (years)	1.01	[1.01; 1.02]	<0.001	0.99	[0.98; 0.99]	<0.001	1.00	[0.99; 1.00]	0.667
Education									
Less than High School (ref)	-	-	-	-	-	-	-	-	-
High School	0.80	[0.68; 0.95]	0.011	1.06	[0.86; 1.31]	0.553	1.14	[0.93; 1.40]	0.214
More than High School	0.51	[0.44; 0.59]	<0.001	1.36	[1.00; 1.84]	0.052	1.10	[0.90; 1.36]	0.339
Race-ethnicity									
Non-Hispanic White (ref)	-	-	-	-	-	-	-	-	-
Non-Hispanic Black	0.63	[0.54; 0.73]	<0.001	0.58	[0.43; 0.79]	0.001	0.73	[0.61; 0.87]	0.001
Mexican American	0.39	[0.33; 0.46]	<0.001	0.60	[0.46; 0.79]	<0.001	0.32	[0.26; 0.40]	<0.001
Other	0.57	[0.48; 0.67]	<0.001	0.43	[0.34; 0.55]	<0.001	0.38	[0.31; 0.47]	<0.001
Poverty-Income Ratio	0.86	[0.84; 0.89]	<0.001	1.19	[1.13; 1.26]	<0.001	0.97	[0.92; 1.02]	0.286
Constant	1.11	[0.84; 1.46]	0.454	8.09	[4.90; 13.35]	<0.001	1.80	[1.36; 2.38]	<0.001
Sample size		13,745			12,519			8,257	

OR – Odds ratio, CI – Confidence interval, ref – reference category, NHANES – National Health and Nutrition Examination Survey; Other – non-Mexican-American Hispanics, Asian-Americans and multi-racial subjects

Supplemental Table 2 continued. Sex-specific logistic regression analysis of *Toxoplasma gondii* (Nicolle et Manceaux, 1908) seropositivity predicting substance use in US adults, continuous NHANES 2009-2014: Odds ratios from weighted logistic regression.

	Cocaine			Heroin			Methamphetamine		
	OR	95% CI	*p*	OR	95% CI	*p*	OR	95% CI	*P*
T. gondii seropositive	0.80	[0.55; 1.16]	0.226	0.39	[0.13; 1.22]	0.104	0.44	[0.22, 0.85]	0.016
Male	1.89	[1.63; 2.18]	<0.001	2.27	[1.51; 3.41]	<0.001	1.95	[1.60, 2.36]	<0.001
T. gondii x Male Interaction	1.20	[0.76; 1.89]	0.425	1.72	[0.40; 7.36]	0.459	1.35	[0.64, 2.85]	0.428
Sex-specific *T. gondii* ORs									
Female	0.80	[0.55; 1.16]	0.226	0.39	[0.13; 1.22]	0.104	0.44	[0.22, 0.85]	0.016
Male	0.96	[0.78; 1.18]	0.666	0.68	[0.40; 1.15]	0.143	0.59	[0.39, 0.88]	0.011
Age (years)	1.00	[1.00; 1.01]	0.587	1.01	[0.99; 1.02]	0.338	1.01	[1.00; 1.01]	0.063
Education									
Less than High School (ref)	-	-	-	-	-	-	-	-	-
High School	1.11	[0.88; 1.41]	0.366	1.09	[0.73; 1.62]	0.665	1.28	[0.92; 1.77]	0.133
More than High School	0.93	[0.76; 1.13]	0.455	0.75	[0.48; 1.17]	0.202	0.96	[0.72; 1.27]	0.758
Race-ethnicity									
Non-Hispanic White (ref)	-	-	-	-	-	-	-	-	-
Non-Hispanic Black	0.67	[0.55; 0.82]	<0.001	1.01	[0.62; 1.65]	0.954	0.24	[0.15; 0.38]	<0.001
Mexican American	0.77	[0.63; 0.94]	0.013	0.38	[0.21; 0.69]	0.002	0.84	[0.57; 1.24]	0.378
Other	0.56	[0.46; 0.69]	<0.001	0.62	[0.37; 1.04]	0.070	0.74	[0.54; 1.01]	0.056
Poverty-Income Ratio	0.94	[0.89; 0.99]	0.013	0.75	[0.67; 0.83]	<0.001	0.83	[0.77; 0.90]	<0.001
Constant	0.21	[0.14; 0.31]	<0.001	0.03	[0.01; 0.09]	<0.001	0.09	[0.05; 0.14]	<0.001
Sample size		10,233			10,233			10,236	

OR – Odds ratio, CI – Confidence interval, ref – reference category, NHANES – National Health and Nutrition Examination Survey;
Other – non-Mexican-American Hispanics, Asian-Americans and multi-racial subjects