

Supplementary Table 4 (S1): Disease SDOH association effect sizes from SEM

Disease	term	estimate	std.error	p.value	Domain	CI_lower
Asthma	SDOH	0.2800229	0.0572178	9.88E-07	SDOH	0.1678759
Asthma	SCC	0.8899284	0.0759498	0.00E+00	SDOH	0.7410667
Asthma	NBE	0.3366239	0.0611969	3.78E-08	SDOH	0.216678
Asthma	ES	0.432242	0.0551302	4.44E-15	SDOH	0.3241868
Asthma	HCAU	0.7909741	0.0707185	0.00E+00	SDOH	0.6523658
Asthma	Education	0.1117387	0.0380935	3.35E-03	Education	0.0370755
Asthma	Social.Supp	-0.1702756	0.0391177	1.34E-05	SCC	-0.2469463
Asthma	Loneliness	0.3047228	0.0462388	4.39E-11	SCC	0.2140948
Asthma	Social.Cohes	-0.2728288	0.0538872	4.13E-07	SCC	-0.3784477
Asthma	Everyday.Dis	0.6505429	0.0622586	0.00E+00	SCC	0.528516
Asthma	Stress	0.6401672	0.0549507		0 SCC	0.5324638
Asthma	Spiritual.Exp	0.0227368	0.037196	0.5410212	SCC	-0.0501673
Asthma	Crime	0.1838041	0.0431337	2.03E-05	NBE	0.0992621
Asthma	Physical.Dis	0.2154893	0.0526996	4.33E-05	NBE	1.12E-01
Asthma	Social.Disor	0.3253325	0.0560656	6.53E-09	NBE	0.215444
Asthma	Walkability	-0.153418	0.0334477	4.50E-06	NBE	-0.2189755
Asthma	Own.Home	-0.0636596	0.0228905	0.0054184	ES	-0.1085249
Asthma	Housing.Qua	-0.1605402	0.0244177	4.87E-11	ES	-0.2083988
Asthma	Housing.Inst	0.0629172	0.0247463	0.0110065	ES	0.0144146
Asthma	Food.Insecu	0.2284263	0.0310097	1.75E-13	ES	0.1676473
Asthma	Percent.Pov	-0.1403839	0.0530205	8.10E-03	ES	-0.2443042
Asthma	Health.Litera	0.0543166	0.0236051	0.0213886	HCAU	0.0080506
Asthma	Medical.Disc	0.5885585	0.0628033		0 HCAU	0.465464
Asthma	Health.Cover	-0.0344632	0.0309722	0.2658319	HCAU	-0.0951688
Asthma	Healthcare.U	1.0252412	0.0751925		0 HCAU	0.8778639
Asthma	Delayed.Car	0.1615871	0.0221681	3.12E-13	HCAU	0.1181378
Asthma	Can.t.afford	0.2375196	0.0207294		0 HCAU	0.19689
Asthma	Worried.Pay	0.1739926	0.0305669	1.25E-08	HCAU	0.1140816
Asthma	Respect	-0.1208344	0.0531778	2.31E-02	HCAU	-0.2250629
Asthma	Education	0.1117387	0.0380935	3.35E-03	Education	0.0370755
Afib	SDOH	0.2593748	0.0740034	4.57E-04	SDOH	0.1143281
Afib	SCC	0.358447	0.1003803	3.56E-04	SDOH	0.1617016
Afib	NBE	0.1106278	0.0828843	1.82E-01	SDOH	-0.0518254
Afib	ES	0.3093209	0.0786463	8.39E-05	SDOH	0.1551742
Afib	HCAU	0.6690481	0.0979365	8.41E-12	SDOH	0.4770926
Afib	Education	0.1787932	0.0487689	2.46E-04	Education	0.0832061
Afib	Social.Supp	-0.0734941	0.0482129	1.27E-01	SCC	-0.1679913
Afib	Loneliness	0.0801808	0.0594896	0.1777184	SCC	-0.0364187
Afib	Social.Cohes	-0.1192408	0.0705172	9.08E-02	SCC	-0.2574545
Afib	Everyday.Dis	0.2868908	0.0871778	9.99E-04	SCC	0.1160223
Afib	Stress	0.2709895	0.0719647	1.66E-04	SCC	0.1299387
Afib	Spiritual.Exp	0.1763785	0.0487757	2.99E-04	SCC	0.0807782

Afib	Crime	-0.0092648	0.0591241	8.75E-01	NBE	-0.1251481
Afib	Physical.Disc	0.0665845	0.0701218	0.3423381	NBE	-0.0708542
Afib	Social.Disorc	0.1316195	0.0745415	7.74E-02	NBE	-0.0144819
Afib	Walkability	-0.1326305	0.0419427	1.57E-03	NBE	-0.2148382
Afib	Own.Home	-0.0538987	0.0308736	0.0808483	ES	-0.114411
Afib	Housing.Qua	-0.0970424	0.0335924	0.0038669	ES	-0.1628835
Afib	Housing.Inst	0.0586192	0.0349997	0.0939632	ES	-0.0099801
Afib	Food.Insecu	0.0957392	0.0463809	0.0389991	ES	0.0048327
Afib	Percent.Pove	-0.2115216	0.0664013	0.001445	ES	-0.3416681
Afib	Health.Litera	-0.0601712	0.0299433	4.45E-02	HCAU	-0.1188601
Afib	Medical.Disc	0.3342682	0.083241	5.93E-05	HCAU	0.1711158
Afib	Health.Cove	-0.1076139	0.044773	0.016237	HCAU	-0.195369
Afib	Healthcare.L	0.8445685	0.1006441	0.00E+00	HCAU	0.647306
Afib	Delayed.Car	0.1236473	0.0316676	9.44E-05	HCAU	0.0615788
Afib	Can.t.afford.	0.184904	0.0277218	2.56E-11	HCAU	0.1305693
Afib	Worried.Pay	0.1011411	0.0434457	1.99E-02	HCAU	0.0159876
Afib	Respect	-0.2860224	0.0707525	5.29E-05	HCAU	-0.4246974
Afib	Education	0.1787932	0.0487689	2.46E-04	Education	0.0832061
BreastC	SDOH	-0.2723453	0.0608904	7.72E-06	SDOH	-0.3916906
BreastC	SCC	-0.2699497	0.0862548	1.75E-03	SDOH	-0.4390091
BreastC	NBE	-0.2666211	0.0687391	1.05E-04	SDOH	-0.4013497
BreastC	ES	-0.4192103	0.0647795	9.71E-11	SDOH	-0.5461782
BreastC	HCAU	-0.2672234	0.0772844	5.45E-04	SDOH	-0.4187008
BreastC	Education	-0.2240683	0.0404749	3.09E-08	Education	-0.3033992
BreastC	Social.Supp	0.1834177	0.0436048	2.60E-05	SCC	0.0979524
BreastC	Loneliness	-0.1699721	0.0505262	7.68E-04	SCC	-0.2690034
BreastC	Social.Cohes	0.2428101	0.0584922	3.31E-05	SCC	0.1281655
BreastC	Everyday.Dis	-0.2788486	0.079422	4.46E-04	SCC	-0.4345156
BreastC	Stress	-0.0617614	0.0597545	3.01E-01	SCC	-0.1788801
BreastC	Spiritual.Exp	-0.0229232	0.0411513	5.77E-01	SCC	-0.1035798
BreastC	Crime	-0.1527955	0.048121	1.50E-03	NBE	-0.2471126
BreastC	Physical.Disc	-0.1527351	0.0585766	9.12E-03	NBE	-0.2675452
BreastC	Social.Disorc	-0.2470323	0.0626064	7.95E-05	NBE	-0.3697407
BreastC	Walkability	0.0341357	0.0353044	0.3335958	NBE	-0.0350609
BreastC	Own.Home	0.1512478	0.0266522	1.39E-08	ES	0.0990094
BreastC	Housing.Qua	0.0301193	0.0277284	2.77E-01	ES	-0.0242283
BreastC	Housing.Inst	-0.0374825	0.0292885	2.01E-01	ES	-0.094888
BreastC	Food.Insecu	-0.1438762	0.03952	2.72E-04	ES	-0.2213354
BreastC	Percent.Pove	0.3882265	0.0532966	3.24E-13	ES	0.2837653
BreastC	Health.Litera	0.0296764	0.0265053	2.63E-01	HCAU	-0.022274
BreastC	Medical.Disc	-0.2034601	0.0714279	4.39E-03	HCAU	-0.3434587
BreastC	Health.Cove	0.0724581	0.0367742	4.88E-02	HCAU	3.81E-04
BreastC	Healthcare.L	0.5907401	0.0830039	1.10E-12	HCAU	0.4280524
BreastC	Delayed.Car	-0.1033036	0.0248106	3.13E-05	HCAU	-0.1519324

BreastC	Can.t.afford.	-0.0791631	0.0225372	4.44E-04	HCAU	-0.123336
BreastC	Worried.Pay	-0.0533981	0.0342361	0.1188306	HCAU	-0.1205009
BreastC	Respect	0.0393458	0.0600526	0.5123458	HCAU	-0.0783572
BreastC	Education	-0.2240683	0.0404749	3.09E-08	Education	-0.3033992
CKD	SDOH	0.7616294	0.0747429	0	SDOH	0.6151334
CKD	SCC	0.8765938	0.1000255	0.00E+00	SDOH	0.6805437
CKD	NBE	0.6226399	0.0789483	3.11E-15	SDOH	0.4679012
CKD	ES	1.2667868	0.0785999	0.00E+00	SDOH	1.1127309
CKD	HCAU	0.8772989	0.097758	0	SDOH	0.6856932
CKD	Education	0.6093658	0.0489667	0.00E+00	Education	0.513391
CKD	Social.Supp	-0.2641884	0.0496961	1.06E-07	SCC	-0.3615929
CKD	Loneliness	0.5073148	0.0599228	0.00E+00	SCC	0.3898661
CKD	Social.Cohes	-0.5651954	0.0716486	3.11E-15	SCC	-0.7056267
CKD	Everyday.Dis	0.5372031	0.0851821	2.85E-10	SCC	0.3702462
CKD	Stress	0.4425838	0.0716727	6.61E-10	SCC	0.3021052
CKD	Spiritual.Exp	0.3409864	0.0498922	8.23E-12	SCC	0.2431977
CKD	Crime	0.4953395	0.0543435	0.00E+00	NBE	0.3888263
CKD	Physical.Dis	0.4206103	0.0678882	5.81E-10	NBE	0.2875495
CKD	Social.Disor	0.5289495	0.0722694	2.50E-13	NBE	0.3873014
CKD	Walkability	-0.253013	0.0437518	7.34E-09	NBE	-0.3387664
CKD	Own.Home	-0.3633235	0.0302682	0.00E+00	ES	-0.422649
CKD	Housing.Qua	-0.1616713	0.0332607	1.17E-06	ES	-0.2268621
CKD	Housing.Inst	0.128173	0.0342527	1.83E-04	ES	0.0610378
CKD	Food.Insecu	0.4886545	0.0452905	0.00E+00	ES	0.3998851
CKD	Percent.Pov	-1.1541216	0.0685045	0.00E+00	ES	-1.2883905
CKD	Health.Litera	-0.2082414	0.029993	3.84E-12	HCAU	-0.2670276
CKD	Medical.Disc	0.3903914	0.0848276	4.18E-06	HCAU	0.2241294
CKD	Health.Cover	-0.0452054	0.042313	0.2853598	HCAU	-0.1281389
CKD	Healthcare.L	0.1966499	0.1016317	5.30E-02	HCAU	-0.0025483
CKD	Delayed.Car	0.1527363	0.0308611	7.45E-07	HCAU	0.0922487
CKD	Can.t.afford.	0.2534627	0.0280586	0	HCAU	0.1984679
CKD	Worried.Pay	0.2655245	0.0423636	3.66E-10	HCAU	0.1824917
CKD	Respect	-3.45E-04	0.0717331	9.96E-01	HCAU	-0.1409417
CKD	Education	0.6093658	0.0489667	0	Education	0.513391
CHD	SDOH	0.5654562	0.046943	0.00E+00	SDOH	0.473448
CHD	SCC	0.5145554	0.0637755	6.66E-16	SDOH	0.3895555
CHD	NBE	0.2435891	0.0516961	2.45E-06	SDOH	0.1422647
CHD	ES	0.6476476	0.0489306	0.00E+00	SDOH	0.5517437
CHD	HCAU	0.707691	0.0625476	0.00E+00	SDOH	0.5850978
CHD	Education	0.375383	0.0306747	0.00E+00	Education	0.3152606
CHD	Social.Supp	-0.171661	0.0304784	1.78E-08	SCC	-0.2313988
CHD	Loneliness	0.1820982	0.0373993	1.12E-06	SCC	0.1087956
CHD	Social.Cohes	-0.2859926	0.0440646	8.57E-11	SCC	-0.3723591
CHD	Everyday.Dis	0.2299039	0.0558044	3.79E-05	SCC	0.1205273

CHD	Stress	0.4078082	0.0462148	0.00E+00	SCC	0.3172271
CHD	Spiritual.Exp	0.1336949	0.0310814	1.70E-05	SCC	0.0727753
CHD	Crime	0.2036007	0.0369651	3.63E-08	NBE	0.1311491
CHD	Physical.Dis	0.160493	0.0440356	2.68E-04	NBE	0.0741833
CHD	Social.Disor	0.2073774	0.0468162	9.44E-06	NBE	0.1156176
CHD	Walkability	-0.1914154	0.0265982	6.18E-13	NBE	-0.2435478
CHD	Own.Home	-0.1697158	0.0196409	0.00E+00	ES	-0.2082119
CHD	Housing.Qua	-0.0828574	0.0215165	1.18E-04	ES	-0.1250298
CHD	Housing.Inst	0.1297063	0.0221022	4.40E-09	ES	0.086386
CHD	Food.Insecu	0.2886778	0.0287728	0.00E+00	ES	0.2322832
CHD	Percent.Pov	-0.4068622	0.0411641	0.00E+00	ES	-0.4875437
CHD	Health.Litera	-0.0864472	0.0184354	2.74E-06	HCAU	-0.1225805
CHD	Medical.Disc	0.2886977	0.0541335	9.66E-08	HCAU	0.1825961
CHD	Health.Cover	-0.0440337	0.0285307	1.23E-01	HCAU	-0.0999538
CHD	Healthcare.L	0.6624178	0.0644694	0.00E+00	HCAU	0.5360577
CHD	Delayed.Car	0.1429702	0.0202441	1.64E-12	HCAU	0.1032917
CHD	Can.t.afford.i	0.1649476	0.0177415	0.00E+00	HCAU	0.1301743
CHD	Worried.Pay	0.1637529	0.0273132	2.03E-09	HCAU	0.110219
CHD	Respect	-0.1448964	0.044705	0.0011904	HCAU	-0.2325182
CHD	Education	0.375383	0.0306747	0.00E+00	Education	0.3152606
HyperC	SDOH	0.7409598	0.0700855	0.00E+00	SDOH	0.6035923
HyperC	SCC	0.7677978	0.0929875	2.22E-16	SDOH	0.5855423
HyperC	NBE	0.360857	0.0754527	1.73E-06	SDOH	0.2129697
HyperC	ES	0.7720345	0.07266	0.00E+00	SDOH	0.6296209
HyperC	HCAU	0.7883276	0.0863282	0.00E+00	SDOH	0.6191243
HyperC	Education	0.5521065	0.0461213	0.00E+00	Education	0.4617088
HyperC	Social.Supp	-0.3029657	0.0461841	5.38E-11	SCC	-0.3934866
HyperC	Loneliness	0.2888598	0.0562421	2.81E-07	SCC	0.1786254
HyperC	Social.Cohes	-0.3934676	0.0649913	1.41E-09	SCC	-0.5208506
HyperC	Everyday.Dis	0.4636997	0.0809399	1.01E-08	SCC	0.3050576
HyperC	Stress	0.4960252	0.066442	8.30E-14	SCC	0.3657989
HyperC	Spiritual.Exp	0.1465635	0.0440649	8.81E-04	SCC	0.0601964
HyperC	Crime	0.3108025	0.0539532	8.38E-09	NBE	0.2050542
HyperC	Physical.Dis	0.2419811	0.063525	1.39E-04	NBE	0.1174722
HyperC	Social.Disor	0.3057463	0.0688414	8.94E-06	NBE	0.1708173
HyperC	Walkability	-0.2210075	0.0385882	1.02E-08	NBE	-0.2966404
HyperC	Own.Home	-0.166393	0.0288597	8.14E-09	ES	-0.2229581
HyperC	Housing.Qua	-0.0905301	0.0302965	2.81E-03	ES	-0.1499114
HyperC	Housing.Inst	0.1093414	0.0312788	4.73E-04	ES	0.0480349
HyperC	Food.Insecu	0.3357738	0.0446037	5.15E-14	ES	0.2483505
HyperC	Percent.Pov	-0.6081463	0.0621424	0.00E+00	ES	-0.7299453
HyperC	Health.Litera	-0.1470115	0.0290868	4.32E-07	HCAU	-0.2040216
HyperC	Medical.Disc	0.3841461	0.0753098	3.38E-07	HCAU	0.236539
HyperC	Health.Cover	-0.0362742	0.037396	0.3320459	HCAU	-0.1095704

HyperC	Healthcare.L	0.6565576	0.0964142	9.78E-12	HCAU	0.4675858
HyperC	Delayed.Car	0.1104022	0.0273102	5.29E-05	HCAU	0.0568742
HyperC	Can.t.afford.	0.1993961	0.0257735	1.02E-14	HCAU	0.14888
HyperC	Worried.Pay	0.2486845	0.0386003	1.17E-10	HCAU	0.1730279
HyperC	Respect	-0.1720284	0.0660102	9.16E-03	HCAU	-0.3014083
HyperC	Education	0.5521065	0.0461213	0.00E+00	Education	0.4617088
ProstateC	SDOH	-0.7061125	0.111145	2.11E-10	SDOH	-0.9239567
ProstateC	SCC	-0.865215	0.1543886	2.09E-08	SDOH	-1.1678167
ProstateC	NBE	-0.6897181	0.12387	2.58E-08	SDOH	-0.9325033
ProstateC	ES	-1.457814	0.1335137	0	SDOH	-1.7195008
ProstateC	HCAU	-0.3550099	0.1630492	0.0294569	SDOH	-0.6745862
ProstateC	Education	-0.7662517	0.0707384	0.00E+00	Education	-0.9048989
ProstateC	Social.Supp	0.3202509	0.0677701	2.29E-06	SCC	0.1874215
ProstateC	Loneliness	-0.5685219	0.0878558	9.73E-11	SCC	-0.7407192
ProstateC	Social.Cohes	0.3103863	0.10649	0.0035603	SCC	0.1016658
ProstateC	Everyday.Dis	-0.7183376	0.1359236	1.26E-07	SCC	-0.9847478
ProstateC	Stress	-0.3541656	0.1128559	0.0016998	SCC	-0.5753631
ProstateC	Spiritual.Exp	-0.0754621	0.0688156	2.73E-01	SCC	-0.2103406
ProstateC	Crime	-0.362058	0.0952367	1.44E-04	NBE	-0.548722
ProstateC	Physical.Dis	-0.4625511	0.0993528	3.23E-06	NBE	-0.6572825
ProstateC	Social.Disor	-0.576315	0.1091088	1.28E-07	NBE	-0.7901683
ProstateC	Walkability	-0.1295898	0.0598195	3.03E-02	NBE	-0.2468361
ProstateC	Own.Home	0.2158735	0.0480827	7.13E-06	ES	0.1216315
ProstateC	Housing.Qua	0.0260721	0.0539476	6.29E-01	ES	-0.0796652
ProstateC	Housing.Inst	-0.2037253	0.057085	3.59E-04	ES	-0.315612
ProstateC	Food.Insecu	-0.2755369	0.092236	0.0028145	ES	-0.4563195
ProstateC	Percent.Pov	1.598005	0.1032895	0	ES	1.3955576
ProstateC	Health.Litera	0.1808361	0.0402653	7.09E-06	HCAU	0.1019161
ProstateC	Medical.Disc	-0.3247297	0.1152659	4.84E-03	HCAU	-0.5506509
ProstateC	Health.Cover	0.1045082	0.0705793	0.1386809	HCAU	-0.0338272
ProstateC	Healthcare.L	0.7198	0.1538636	2.89E-06	HCAU	0.4182274
ProstateC	Delayed.Car	-0.1395519	0.0535518	9.16E-03	HCAU	-0.2445135
ProstateC	Can.t.afford.	0.0673265	0.0448458	1.33E-01	HCAU	-0.0205713
ProstateC	Worried.Pay	-0.055921	0.0783111	0.4751731	HCAU	-0.2094108
ProstateC	Respect	-0.0266518	0.109877	0.8083458	HCAU	-0.2420106
ProstateC	Education	-0.7662517	0.0707384	0.00E+00	Education	-0.9048989
t2d	SDOH	1.4293003	0.0477677	0.00E+00	SDOH	1.3356756
t2d	SCC	1.217864	0.0638807	0.00E+00	SDOH	1.0926579
t2d	NBE	1.0289449	0.052536	0.00E+00	SDOH	0.9259743
t2d	ES	1.9735818	0.0491553	0	SDOH	1.8772374
t2d	HCAU	1.4666465	0.0619943	0.00E+00	SDOH	1.3451377
t2d	Education	1.123952	0.0319539	0.00E+00	Education	1.0613224
t2d	Social.Supp	-0.5029865	0.0315528	0.00E+00	SCC	-0.5648298
t2d	Loneliness	0.4891784	0.0375317	0.00E+00	SCC	0.4156163

t2d	Social.Cohes	-0.8816189	0.0458534	0.00E+00	SCC	-0.9714915
t2d	Everyday.Dis	0.8599276	0.0539841	0.00E+00	SCC	0.7541187
t2d	Stress	0.7387586	0.0466828	0	SCC	0.6472602
t2d	Spiritual.Exp	0.654611	0.0322518	0.00E+00	SCC	0.5913974
t2d	Crime	0.7745566	0.0370503	0	NBE	0.7019379
t2d	Physical.Dis	0.6269569	0.0449528	0	NBE	0.5388494
t2d	Social.Disorc	0.9070163	0.0477698	0	NBE	0.8133875
t2d	Walkability	-0.2030349	0.0276302	2.01E-13	NBE	-0.2571902
t2d	Own.Home	-0.5269112	0.0194696	0.00E+00	ES	-0.5650716
t2d	Housing.Qua	-0.2481667	0.0212328	0.00E+00	ES	-0.289783
t2d	Housing.Inst	0.2567415	0.0214659	0.00E+00	ES	0.2146684
t2d	Food.Insecu	0.7469172	0.0276896	0.00E+00	ES	0.6926457
t2d	Percent.Pove	-1.959369	0.0458665	0.00E+00	ES	-2.0492673
t2d	Health.Litera	-0.3447986	0.0192633	0	HCAU	-0.3825546
t2d	Medical.Disc	0.6399328	0.0518963	0.00E+00	HCAU	0.538216
t2d	Health.Cover	-0.1741104	0.0273182	1.85E-10	HCAU	-0.227654
t2d	Healthcare.L	0.6583406	0.0646248	0	HCAU	0.5316759
t2d	Delayed.Car	0.3042163	0.0195486	0.00E+00	HCAU	0.2659011
t2d	Can.t.afford.	0.323571	0.0178181	0	HCAU	0.2886475
t2d	Worried.Pay	0.4273441	0.0266346	0.00E+00	HCAU	0.3751403
t2d	Respect	-0.0543126	0.0449385	0.2268167	HCAU	-0.1423921
t2d	Education	1.123952	0.0319539	0.00E+00	Education	1.0613224
t1d	SDOH	0.853921	0.1021624	0.00E+00	SDOH	0.6536826
t1d	SCC	0.6123775	0.1262895	1.24E-06	SDOH	0.3648502
t1d	NBE	0.6016319	0.0996787	1.58E-09	SDOH	0.4062616
t1d	ES	1.0077569	0.0991884	0.00E+00	SDOH	0.8133477
t1d	HCAU	0.9871864	0.1258846	4.44E-15	SDOH	0.7404525
t1d	Education	0.678294	0.0674965	0.00E+00	Education	0.5460009
t1d	Social.Supp	-0.3095749	0.0652138	2.06E-06	SCC	-0.437394
t1d	Loneliness	0.2577713	0.0788798	1.08E-03	SCC	0.1031669
t1d	Social.Cohes	-0.4931471	0.0919156	8.09E-08	SCC	-0.6733017
t1d	Everyday.Dis	0.4313939	0.1068193	5.38E-05	SCC	0.222028
t1d	Stress	0.3584207	0.0938299	1.34E-04	SCC	0.174514
t1d	Spiritual.Exp	0.4654705	0.0653122	1.03E-12	SCC	0.3374586
t1d	Crime	0.4894862	0.0716355	8.31E-12	NBE	0.3490806
t1d	Physical.Dis	0.4110893	0.0883151	3.24E-06	NBE	0.2379916
t1d	Social.Disorc	0.5153804	0.0917155	1.92E-08	NBE	0.3356181
t1d	Walkability	-0.2020166	0.0592128	6.46E-04	NBE	-0.3180738
t1d	Own.Home	-0.2308837	0.0400271	8.01E-09	ES	-0.3093369
t1d	Housing.Qua	-0.0540938	0.0443211	2.22E-01	ES	-0.1409631
t1d	Housing.Inst	0.1098619	0.0436193	1.18E-02	ES	0.024368
t1d	Food.Insecu	0.4574397	0.0534281	0	ES	0.3527206
t1d	Percent.Pove	-1.1582282	0.0949668	0	ES	-1.3443631
t1d	Health.Litera	-0.1779928	0.0406655	1.20E-05	HCAU	-0.2576971

t1d	Medical.Disc	0.3851473	0.1060837	2.83E-04 HCAU	0.1772232
t1d	Health.Cover	-0.1562317	0.0536766	0.0036073 HCAU	-0.2614379
t1d	Healthcare.L	1.047518	0.1352521	9.55E-15 HCAU	0.7824239
t1d	Delayed.Car	0.1684016	0.0397052	2.22E-05 HCAU	0.0905793
t1d	Can.t.afford.	0.2774104	0.0371305	7.95E-14 HCAU	0.2046348
t1d	Worried.Pay	0.297072	0.0543446	4.59E-08 HCAU	0.1905566
t1d	Respect	0.1368808	0.0927825	0.1401357 HCAU	-0.044973
t1d	Education	0.678294	0.0674965	0 Education	0.5460009

CI_upper

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0.1864019
-0.0936048
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-0.0546748

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-0.424764
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-0.0964804
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-0.199626
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0.957531
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-0.2124448
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-0.3624617
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-0.4411431
0.5627405

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-0.2065504
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0.4795479
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-0.3129926
0.6407598
0.5423273
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0.6951428
-0.0859595
-0.1524306
0.0327755
0.1953558
0.5621589
-0.9720932
-0.0982885

0.5930714
-0.0510255
1.3126122
0.2462239
0.3501861
0.4035875
0.3187345
0.810587

tary Table 4 (S2): Median of SDOH association effect sizes across diseases

term	Domain	bs_estimate	iqr_lower	iqr_upper
ES ndividual-level		0.7720345	0.432242	1.2667868
Education ndividual-level		0.5521065	0.2240683	0.6782939
HCAU ndividual-level		0.7883276	0.6690481	0.8772989
NBE ndividual-level		0.360857	0.2666211	0.6226399
SCC ndividual-level		0.7677978	0.5145554	0.8765938
SDOH ndividual-level		0.7061125	0.2800229	0.7616294
assisted_income	Area-level	0.2644531	0.2229391	0.7963767
deprivation_index	Area-level	0.3911946	0.3440914	0.8221305
igh_school_education	Area-level	0.5141489	0.0978514	0.6890306
median_income	Area-level	0.3459172	0.218408	0.710071
no_health_insurance	Area-level	0.7170416	0.3003269	0.7818519
poverty	Area-level	0.2085383	0.1799469	0.6244318
vacant_housing	Area-level	1.0041951	0.590991	1.0938599

Supplementary Table 4 (S3): Disease SDOH association effect sizes in stratified analysis with

Disease	term	estimate.NHI	estimate.NH'	estimate.HS	std.error.NHI	std.error.NH'
Asthma	education	-0.0722919	0.0474145	-0.0863294	0.0528076	0.0302212
Asthma	per_poverty_	-0.0069141	9.65E-04	-1.52E-01	0.1308724	0.0433414
Asthma	assisted_inco	1.29E-01	0.0055799	0.2825193	0.0831905	0.0736278
Asthma	high_school_	-0.1867267	-0.6038572	-9.80E-02	0.10751	0.0706352
Asthma	median_inco	-0.0690325	-0.2267077	0.0065355	0.1321965	0.0565688
Asthma	no_health_in	-0.4262341	-0.9294717	-3.48E-01	0.1124221	0.0670855
Asthma	poverty	0.0208989	-0.5562987	0.0780719	0.112044	0.0781478
Asthma	vacant_hous	0.213978	0.338285	0.0036863	0.1376311	0.0832109
Asthma	deprivation_i	-0.0698724	-0.507412	0.0128783	0.1071294	0.0708498
Afib	education	-0.0518995	0.1430213	-0.1233016	0.083876	0.0377683
Afib	per_poverty_	0.1599226	0.2308192	-0.7408752	0.2019784	0.0531719
Afib	assisted_inco	-0.1301521	0.4443304	-0.4885341	0.1141916	0.0875467
Afib	high_school_	0.0896636	0.6446148	-0.4538401	0.1539504	0.0867196
Afib	median_inco	0.0915496	0.2674092	0.3533797	0.1905139	0.0659062
Afib	no_health_in	0.3559984	0.8708803	0.7540235	0.1757594	0.0860886
Afib	poverty	-0.3488799	0.0217449	-0.6631735	0.1585358	0.0940981
Afib	vacant_hous	-0.2823285	1.2075533	0.5229549	0.1995436	0.0969007
Afib	deprivation_i	-0.0645401	0.6037286	-0.1777459	0.1541152	0.0853345
BreastC	education	-0.3081525	-0.2856757	-3.10E-01	0.0692287	0.034185
BreastC	per_poverty_	-0.6916994	-0.5078414	-6.50E-01	0.1544801	0.0453485
BreastC	assisted_inco	0.0107029	-0.2255247	0.3989229	0.1064078	0.0773026
BreastC	high_school_	0.1280369	0.1402818	0.2660591	0.1428575	0.0749192
BreastC	median_inco	-0.0875185	-0.3280254	0.1514977	0.1709625	0.0594862
BreastC	no_health_in	0.1153012	0.1952918	0.5807469	0.1479102	0.0725632
BreastC	poverty	-0.1019855	-0.2094099	0.3131485	0.1397668	0.086126
BreastC	vacant_hous	-0.0326677	0.4372299	1.2773906	0.1766794	0.0823027
BreastC	deprivation_i	0.0097827	-0.1076628	0.4928518	0.1363016	0.0749132
CKD	education	0.140285	0.591817	0.3550917	0.0712911	4.11E-02
CKD	per_poverty_	0.6289379	1.0635095	1.48E+00	0.1640876	0.0577235
CKD	assisted_inco	-0.0694051	0.4210092	0.3779834	0.1088133	0.0976026
CKD	high_school_	-0.0809926	0.4944919	0.5023108	0.1414946	0.09153
CKD	median_inco	0.2625419	0.8559476	0.68661	0.1828812	0.0745004
CKD	no_health_in	0.3950299	0.906304	0.370388	0.1558313	0.087862
CKD	poverty	0.0057318	0.5032703	0.986275	0.1522066	0.1076432
CKD	vacant_hous	0.6695859	1.1176713	1.52E+00	0.1969704	0.0991007
CKD	deprivation_i	0.1137543	0.9155406	0.7297609	0.1467667	0.0941611
CHD	education	0.3727143	0.4685469	0.3218122	0.0466647	0.0233343
CHD	per_poverty_	1.1708649	0.5314346	0.6587231	0.1089659	0.0321689
CHD	assisted_inco	0.001497	0.3634181	0.4423174	0.0702927	0.0571649
CHD	high_school_	-0.2781058	0.3869648	4.04E-01	0.0936466	0.0527833
CHD	median_inco	0.1419769	0.3507109	0.5105825	0.1167916	0.0417123
CHD	no_health_in	0.2054753	0.4637819	0.148026	0.102663	0.0508552

CHD	poverty	0.1308058	0.337633	0.8706039	0.0983089	0.0621433
CHD	vacant_hous	0.758401	0.7765819	3.25E-01	0.1246539	0.0625741
CHD	deprivation_i	0.087645	0.5228733	0.577305	0.0950464	0.0536197
HyperC	education	0.1959629	0.4575426	0.3258128	0.0709275	0.0367384
HyperC	per_poverty_	0.102914	0.5341251	0.5893425	0.1556953	0.0509028
HyperC	assisted_inci	-0.5406933	0.3602464	0.2874565	0.1118728	0.0826415
HyperC	high_school_	-0.4661138	-0.3869501	5.02E-01	0.1453479	0.0785797
HyperC	median_inco	0.0390734	0.7547001	0.4108769	0.1838734	0.0672181
HyperC	no_health_in	-0.9107643	-0.0274255	9.46E-01	0.1530729	0.0798335
HyperC	poverty	-0.7074561	9.59E-04	2.05E-01	0.1509101	0.0920873
HyperC	vacant_hous	-1.0220247	1.150486	0.8328861	0.1940364	0.0949455
HyperC	deprivation_i	-0.6927303	0.3621756	6.24E-01	0.1463169	0.0809007
ProstateC	education	-0.1004018	-0.8953693	0.5596944	0.1533084	0.059098
ProstateC	per_poverty_	-0.4967877	-1.6026664	-0.2834014	0.3158567	0.0844842
ProstateC	assisted_inci	0.9320885	1.3638185	1.98E+00	0.266285	0.1382143
ProstateC	high_school_	-0.5106721	-0.3480909	0.4382312	0.3154476	0.1155767
ProstateC	median_inco	0.7273453	-0.5230573	0.431187	0.3378074	0.0964619
ProstateC	no_health_in	-0.037293	-1.2492221	0.3024601	0.3360063	0.1118144
ProstateC	poverty	0.5058066	-0.5434739	1.5015444	0.3715698	0.1422823
ProstateC	vacant_hous	2.9752866	1.4495756	3.08E+00	0.5120868	0.1498773
ProstateC	deprivation_i	0.6302946	-0.3384511	1.3972496	0.3382865	0.1220306
t2d	education	0.3093838	0.9827602	8.61E-01	0.0492889	0.0261579
t2d	per_poverty_	0.9375505	1.6567039	2.07E+00	0.1199391	0.0375344
t2d	assisted_inci	0.1099991	0.4540153	-0.6114372	0.0803012	0.064992
t2d	high_school_	0.1968331	0.6742695	-0.1721928	0.0984841	0.0593423
t2d	median_inco	0.531451	0.9326274	4.30E-01	0.1285893	0.0497039
t2d	no_health_in	0.032142	0.6758091	-0.3425588	0.1066047	0.0602378
t2d	poverty	0.3846374	0.461264	1.17E-01	0.1095942	0.0701175
t2d	vacant_hous	0.4047169	1.0222897	-0.5672899	0.1388413	0.0691324
t2d	deprivation_i	0.2844922	0.9227698	-0.2747688	0.1042901	0.0627635
t1d	education	-0.0511794	0.3995345	0.2702997	0.1223641	0.0599219
t1d	per_poverty_	0.4652584	0.7119765	0.6948198	0.3072469	0.0823907
t1d	assisted_inci	0.2179332	0.1572964	-0.1128886	0.1679132	0.1359925
t1d	high_school_	0.3703819	0.3131524	0.0559027	0.250604	0.1296045
t1d	median_inco	0.7681466	0.4319578	0.6583018	0.2454699	0.1052863
t1d	no_health_in	0.0120347	0.4277249	0.463663	0.2872816	0.1325737
t1d	poverty	0.6426201	0.1841079	0.1574821	0.2237644	0.1480065
t1d	vacant_hous	1.2208255	0.4044658	1.65E+00	0.2956558	0.1651531
t1d	deprivation_i	0.5033514	0.4260681	0.3034563	0.2192463	0.132068

th heterogeneity statistics. Q = Cochran's Q statistic for heterogeneity; Q_p = p-value assoc

std.error.HS	p.value.NHB	p.value.NHW	p.value.HS	Q	Q_p	I ²
0.0548844	0.1710089	0.116667	0.1157348	6.8057053	3.33E-02	70.612892
0.124588	9.58E-01	0.9822349	0.2232752	1.3439002	0.5107117	0
0.0904871	0.1221566	0.9395905	0.001795	5.6514859	0.0592646	64.611077
0.1041771	8.24E-02	0	0.3468459	20.590678	3.38E-05	90.286867
0.1224354	0.601534	6.13E-05	0.95743	3.6671703	0.1598395	45.462036
0.1057066	1.50E-04	0	9.81E-04	28.681772	5.91E-07	93.02693
0.145576	0.852034	1.09E-12	0.5917538	25.696653	2.63E-06	92.216885
0.2388074	0.1200125	4.80E-05	9.88E-01	2.0594877	3.57E-01	2.8884713
0.1179937	0.5142564	7.96E-13	0.9130884	20.211857	4.08E-05	90.104818
0.1000583	0.5360713	1.53E-04	0.2178381	9.3577218	0.0092896	78.627277
0.2401654	0.4284887	1.42E-05	0.0020365	15.619665	4.06E-04	87.195628
0.1532102	0.2543822	3.87E-07	0.0014294	34.268053	3.62E-08	94.16366
0.1857097	0.5602848	1.06E-13	0.0145329	33.020323	6.76E-08	93.943124
0.2087383	0.6308433	4.96E-05	0.0904683	0.9923193	0.6088644	0
0.2207615	0.0428173	0	6.37E-04	6.9267176	0.0313244	71.126295
0.2502422	0.0277617	0.8172465	0.0080462	9.0462501	0.0108551	77.891392
0.4283203	0.1571063	0	0.2221074	45.948744	1.05E-10	95.647324
0.209352	0.6753781	1.50E-12	0.3958652	22.28906	1.45E-05	91.026988
0.073051	8.54E-06	0.00E+00	2.14E-05	0.1508856	0.9273328	0
0.1647355	7.55E-06	0	7.86E-05	1.8687289	0.3928354	0
0.119541	0.9198809	0.0035293	8.47E-04	19.415806	6.08E-05	89.699114
0.1416303	0.3701158	0.0611455	0.0603064	0.6799424	0.7117908	0
0.1697843	0.6087094	3.50E-08	0.372235	8.197049	0.0165972	75.600976
0.145749	0.4356644	0.0071167	6.76E-05	6.5440683	0.0379292	69.437972
0.1992967	0.4655838	0.0150391	0.1161205	5.8176847	0.0545388	65.622063
0.3193648	0.853309	1.08E-07	6.34E-05	13.749024	1.03E-03	85.453513
0.1577575	0.9427832	0.1506703	0.0017834	11.825847	0.0027043	83.087892
0.0815062	0.0490938	0	1.32E-05	32.073776	1.08E-07	93.764376
0.214684	1.27E-04	0	4.63E-12	10.730161	0.0046771	81.360951
0.1312728	0.52358	1.61E-05	0.0039847	12.626316	0.0018123	84.160067
0.1592084	0.5670458	6.57E-08	0.0016047	12.671098	0.0017722	84.216048
0.1804504	0.1511199	0	1.42E-04	9.2229693	0.0099371	78.31501
0.1891649	0.0112452	0	0.050228	12.256	0.0021809	83.681462
0.2069026	0.9699605	2.93E-06	1.87E-06	15.455087	4.41E-04	87.059277
0.3182214	6.75E-04	0	1.76E-06	6.3629312	0.0415248	68.567945
0.1799176	0.438299	0	4.99E-05	21.201703	2.49E-05	90.566795
0.0535038	1.33E-15	0	1.80E-09	8.3076988	0.0157039	75.925945
0.1169897	0	0	1.80E-08	32.069646	1.09E-07	93.763573
0.0925278	0.9830096	2.05E-10	1.75E-06	20.678962	3.23E-05	90.328335
0.107555	2.98E-03	2.28E-13	1.75E-04	40.565109	1.55E-09	95.069655
0.1230281	0.224121	0	3.32E-05	4.85137	0.0884175	58.774532
0.1107376	0.0453434	0	0.1813114	9.9754142	6.82E-03	79.950707

0.1470317	0.1833343	5.54E-08	3.20E-09	17.539979	1.55E-04	88.597478
0.2379097	1.17E-09	0	0.1720194	3.3772469	0.1847737	40.780166
0.1222179	0.3564616	0	2.32E-06	17.392314	1.67E-04	88.500668
0.0831372	0.0057297	0	8.89E-05	11.455789	3.25E-03	82.541577
0.1692985	0.5086148	0	4.99E-04	7.2324649	2.69E-02	72.34691
0.1362003	1.34E-06	1.31E-05	0.0348117	44.577735	2.09E-10	95.513455
0.1525054	1.34E-03	8.47E-07	1.01E-03	29.536254	3.86E-07	93.228661
0.1951063	0.8317158	0	0.0352119	14.962545	5.64E-04	86.63329
0.1617903	2.68E-09	7.31E-01	5.01E-09	69.495723	8.11E-16	97.122125
0.2126611	2.76E-06	0.9916901	0.3361588	19.104631	7.10E-05	89.531334
0.3480602	1.39E-07	0	0.0167141	101.22387	1.05E-22	98.024182
0.1768656	2.20E-06	7.58E-06	4.17E-04	46.948686	6.39E-11	95.74003
0.1873872	0.5125314	0	0.0028188	71.332898	3.24E-16	97.196245
0.3510214	0.115759	0	0.4194578	23.382755	8.37E-06	91.446688
0.3115186	4.65E-04	0	1.92E-10	6.5857762	0.0371464	69.631522
0.3857832	0.1054729	0.0025973	0.2559766	4.2747359	0.1179649	53.213484
0.4267887	0.031308	5.88E-08	0.3123489	16.545347	2.55E-04	87.91201
0.3580956	0.911625	0	0.3983147	26.389971	1.86E-06	92.421363
0.4778137	0.1734286	1.34E-04	0.0016749	21.79973	1.85E-05	90.825574
0.5501279	6.24E-09	0	2.27E-08	15.183265	5.05E-04	86.827603
0.4263856	0.0624345	0.0055458	0.0010493	20.785307	3.07E-05	90.377819
0.0531346	3.45E-10	0	0	145.82805	2.16E-32	98.628522
0.1250968	5.33E-15	0	0	46.446737	8.21E-11	95.693992
0.0888213	0.1707399	2.83E-12	5.82E-12	93.797514	4.29E-21	97.867747
0.1080242	0.0456487	0	0.1109313	53.541959	2.36E-12	96.264612
0.1259496	3.58E-05	0	6.34E-04	19.717136	5.23E-05	89.856539
0.1085135	0.7630285	0	0.0015949	78.857262	7.52E-18	97.463772
0.1489501	4.49E-04	4.75E-11	0.4305004	4.3748648	0.1122045	54.284302
0.2321568	0.0035573	0	0.014543	53.129308	2.90E-12	96.235599
0.1205677	0.006374	0	0.0226695	88.113385	7.35E-20	97.730197
0.1290725	0.6757608	2.60E-11	0.0362449	11.033524	0.0040188	81.873426
0.299555	0.1299544	0	0.0203676	0.6015506	0.7402441	0
0.1956448	0.1943243	0.2474133	0.563934	1.8292963	0.4006576	0
0.2509301	0.1394193	0.0156828	0.8237051	0.9928386	0.6087064	0
0.2839415	0.0017523	4.08E-05	0.0204254	1.9211331	0.382676	0
0.2633032	0.966585	0.0012539	0.0782473	1.867686	0.3930404	0
0.3145037	0.0040806	0.2135299	0.6165597	3.1627685	0.2056902	36.764262
0.495673	3.64E-05	0.014324	8.56E-04	9.9799271	0.0068059	79.959773
0.2715192	0.0216858	0.0012548	0.2637277	0.3281415	0.848682	0