

Appendix: Diagnostic Codes used for Mental and Physical Health Comorbidity Indexes

Mental Health Index: Modified DSM-5	
Neurodevelopmental Disorders	
ICD-10	F70, F71, F72, F73, F78, F79, F80, F81, F82, F84, F88, F89, F90, F930, F939, F949, F95, F984, F988, F989
ICD-9	299, 3072, 3073, 31381, 31382, 3139, 3139, 3140, 3141, 3148, 3149, 3150, 3151, 3152, 31531, 31532, 31535, 31539, 3154, 3155, 3158, 3159, 317, 318, 319, 78461
Psychotic Disorders	
ICD-10	F060, F061, F062, F20, F21, F22, F23, F24, F25, F28, F29, F531
ICD-9	2908, 2909, 29381, 29382, 29389, 295, 297, 298, 7801, V110
Bipolar Disorders	
ICD-10	F0633, F0634, F30, F31, F340
ICD-9	2960, 2961, 2964, 2965, 2966, 2967, 29680, 29681, 29689, 30113
Depressive Disorders	
ICD-10	F0630, F0631, F0632, F32, F33, F341, F348, F3481, F3489, F349, F39, F530, O906, R452, R453, R4581, R4583, R4584, R4589
ICD-9	29383, 2962, 2963, 29682, 2969, V111, 3004, 311, 6254, V6282
Anxiety Disorders	
ICD-10	F064, F40, F41, F930, F940, R450, R451, R4582
ICD-9	29384, 3000, 3002, 30921, 3130, 31321, 31322, 31323, V112
Obsessive Compulsive Disorders	
ICD-10	F42, F4522, F633, L981, R4681
ICD-9	3003, 31239, 6984
Trauma and Stress Related Disorders	
ICD-10	F430, F4310, F4311, F4312, F4320, F4321, F4322, F4323, F4324, F4325, F4329, F438, F439, F941, F942, R454, R457, Z8651,
ICD-9	308, 309, 31389, V114
Dissociative Disorders	
ICD-10	F440, F441, F442, F4481, F4489, F449, F481
ICD-9	30012, 30013, 30014, 30015, 3006
Somatic Disorders	
ICD-10	F444, F445, F446, F447, F450, F451, F4520, F4521, F4529, F458, F459, F481, F488, F489, F54, F59, F681
ICD-9	30010, 30011, 30016, 30019, 3008, 306, 30754, 30780, 3007, 30789,
Eating Disorders	
ICD-10	F50, F982, F983
ICD-9	3071, 30750, 30751, 30752, 30753, 30759,
Elimination Disorders	
ICD-10	F980, F981, N39498, R159, R32
ICD-9	3076, 3077, 78830, 78839, 78760
Sleeping Disorders	
ICD-10	F51, G2581, G470, G471, G472, G473, G474, G475, G4763, G4769, G478, G479, R063
ICD-9	3074, 327, 33394, 347, 7805, 78604, V694, V695
Sexual Disorders	
ICD-10	F52
ICD-9	3027
Gender-Related Disorders	

Mental Health Index: Modified DSM-5	
ICD-10	F640, F641, F642, F648, F649
ICD-9	3020, 3025, 3026, 30285
Conduct Disorders	
ICD-10	F631, F632, F638, F639, F91, R4587
ICD-9	3013, 3017, 3120, 3121, 3122, 31230, 31232, 31233, 31234, 31235, 31239, 3124, 3128, 3129, 31381
Substance Disorders	
ICD-10	F10, O9931, F11, F12, F13, F14, F15, F16, F18, F19, F550, F551, F552, F553, G312, F554, F558, F630, Z726, O9932
ICD-9	291, 2921, 2922, 29281, 29284, 29285, 29289, 2929, 303, 304, 3050, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 31231, 980, V113, V693, 6483, V6542
Dementias	
ICD-10	A8100, A8101, A8109, A812, A8182, A8189, A819, F0150, F0151, F0280, F0281, F0390, F0391, G231, G300, G301, G308, G309, G3101, G3109, G3183, G903
ICD-9	04611, 04619, 0463, 04671, 04679, 0469 2900, 29010, 29011, 29012, 29013, 29020 29021, 2903, 29040, 29041, 29042, 29043, 29282, 2941, 29410, 29411, 29420, 29421, 3310, 33111, 33119, 33182
Traumatic Brain Injuries	
ICD-10	S020, S021, S060, S061, S062, S0630, S0631, S0632, S0633, S071, S09
ICD-9	800, 801, 803, 804, 850, 851 852, 853, 8540, 8541, 95901
Personality Disorders	
ICD-10	F070, F0789, F079, F21, F60, F688, F69
ICD-9	3010, 30110, 30111, 30112, 30120, 30121, 30122, 3014, 30150, 30159, 3016, 3017, 30181, 30182, 30183, 30184, 30189, 3019, 3101, 3131, V7101
Paraphilic Disorders	
ICD-10	F65, F66
ICD-9	3021, 3022, 3023, 3024, 30280, 30281, 30282, 30283, 30284, 30289, 3029
Other Mental Health Disorders	
ICD-10	F068, F09, F985, F99, R460, R461, R462, R463, R464, R465, R466, R467, R4689, Z8659, R4586
ICD-9	29389, 2939, 2948, 2949, 3009, 3070, 3079, 3101, 3108, 31089, 3109, 316, 64840, 64841, 64842, 64843, 64844 78469, 7992, V118, V119, V402, V409, V7109, V663
Medication-Induced Disorders	
ICD-10	G210, G2111, G2119, G212, G240, G2401, G2402, G2409, G251, G254, G256, G2561, G257, T43205, T50905,
ICD-9	3321, 3331, 33372, 33385, 33392, 33399, 99520, 99529

Physical Health Index: Modified Elixhauser	
Cerebrovascular Disease	
ICD-10	I60, I61, I62, I63, I64, I65, I66, I67, I68, I69
ICD-9	430, 431, 432, 433, 434, 435, 436, 437, 438
Congestive Heart Failure	
ICD-10	I099, I110, I130, I132, I255, I420, I425, I426, I427, I428, I429, I43, I50, P290
ICD-9	39891,40201,40211,40291,40401,40403,40411,40413,40491,40493,4254,4255,4257,4258,4259,428
Cardiac Arrhythmia	
ICD-10	I441, I442, I443, I456, I459, I47, I48, I49, R000, R001, R008, T821, Z450, Z950
ICD-9	4260, 42613, 4267, 4269, 42610, 42612, 4270, 4271, 4272, 4273, 4274, 4276, 4278, 4279, 7850, 99601, 99604, V450, V533
Valvular Disease	
ICD-10	A520, I05, I06, I07, I08, I091, I098, I34, I35, I36, I37, I38, I39, Q230, Q231, Q232, Q233, Z952, Z953, Z954
ICD-9	0932, 394, 395, 396, 397, 424, 7463, 7464, 7465, 7466, V422, V433
Pulmonary Circulation Disorder	
ICD-10	I26, I27, I280, I288, I289
ICD-9	4150, 4151, 416, 4170, 4178, 4179
Peripheral Vascular Disorder	
ICD-10	I70, I71, I731, I738, I739, I771, I790, I792, K551, K558, K559, Z958, Z959
ICD-9	0930, 4373, 440, 441, 4431, 4432, 4438, 4439, 4471, 5571, 5579, V434
Hypertension	
ICD-10	I10, I11, I12, I13, I15
ICD-9	401, 402, 403, 404, 405
Paralysis	
ICD-10	G041, G114, G801, G802, G81, G82, G830, G831, G832, G833, G834, G839
ICD-9	3341, 342, 343, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3449
Other Neurological Disorders	
ICD-10	G10, G11, G12, G13, G20, G21, G22, G254, G255, G312, G318, G319, G32, G35, G36, G37, G40, G41, G931, G934, R470, R56
ICD-9	3319, 3320, 3321, 3334, 3335, 33392, 334, 335, 3362, 340, 341, 345, 3481, 3483, 7803, 7843
Chronic Pulmonary Disease	
ICD-10	I278, I279, J40, J41, J42, J43, J44, J45, J46, J47, J60, J61, J62, J63, J64, J65, J66, J67, J684, J701, J703
ICD-9	4168, 4169, 490, 491, 492, 493, 494, 495, 496, 500, 501, 502, 503, 504, 505, 5064, 5081, 5088
Diabetes	
ICD-10	E100, E101, E109, E110, E111, E119, E120, E121, E129, E130, E131, E139, E140, E141, E149, E102, E103, E104, E105, E106, E107, E108, E112, E113, E114, E115, E116, E117, E118, E122, E123, E124, E125, E126, E127, E128, E132, E133, E134, E135, E136, E137, E138, E142, E143, E144, E145, E146, E147, E148
ICD-9	2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509
Hypothyroidism	
ICD-10	E00, E01, E02, E03, E890
ICD-9	243, 244
Other Thyroid Disorders	
ICD-10	E04, E05, E06, E07

Physical Health Index: Modified Elixhauser	
ICD-9	240, 241, 242, 245, 246
Renal Failure	
ICD-10	I120, I131, N18, N19, N250, Z490, Z491, Z492, Z940, Z992
ICD-9	40301, 40311, 40391, 40402, 40403, 40412, 40413, 40492, 40493, 585, 586, 5880, V420, V451, V56
Liver Disease	
ICD-10	B18, I85, I864, I982, K70, K711, K713, K714, K715, K717, K72, K73, K74, K760, K762, K763, K764, K765, K766, K767, K768, K769, Z944
ICD-9	07022, 07023, 07032, 07033, 07044, 07054, 0706, 0709, 4560, 4561, 4562, 570, 571, 5722, 5723, 5724, 5728, 5733, 5734, 5738, 5739, V427
Peptic Ulcer Disease (without bleeding)	
ICD-10	K257, K259, K267, K269, K277, K279, K287, K289
ICD-9	5317, 5319, 5327, 5329, 5337, 5339, 5347, 5349
AIDS/HIV	
ICD-10	B20, B21, B22, B24
ICD-9	042, 043, 044
Leukemia	
ICD-10	C901, C91, C92, C93, C94, C95
ICD-9	2031, 204, 205, 206, 207, 208
Lymphoma	
ICD-10	C81, C82, C83, C84, C85, C88, C96, C900, C902
ICD-9	200, 201, 202, 2030, 2386
Metastatic Cancer	
ICD-10	C77, C78, C79, C80
ICD-9	196, 197, 198, 199
Solid Tumor without Metastasis	
ICD-10	C00, C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C30, C31, C32, C33, C34, C37, C38, C39, C40, C41, C43, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C97
ICD-9	140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190 191, 192, 193, 194,
Rheumatoid Arthritis	
ICD-10	L940, L941, L943, M05, M06, M08, M120, M123, M30, M310, M311, M312, M313, M32, M33, M34, M35, M45, M461, M468, M469
ICD-9	446, 7010, 7100, 7101, 7102, 7103, 7104, 7108, 7109, 7112, 714, 7193, 720, 725, 7285, 72889, 72930
Coagulopathy	
ICD-10	D65, D66, D67, D68, D691, D693, D694, D695, D696
ICD-9	286, 2871, 2873, 2874, 2875
Obesity	
ICD-10	E66
ICD-9	2780
Weight Loss	
ICD-10	E40, E41, E42, E43, E44, E45, E46, R634, R64

Physical Health Index: Modified Elixhauser	
ICD-9	260, 261, 262, 263, 7832, 7994
Anemia (Blood Loss)	
ICD-10	D500
ICD-9	2800
Anemia (Deficiency)	
ICD-10	D508, D509, D51, D52, D53
ICD-9	2801, 2808, 2809, 281