### Supplementary Table 1. ICD-9 Codes for Major Clinical Diagnoses Used in The Study

<table>
<thead>
<tr>
<th>Domain</th>
<th>Diagnostic group*</th>
<th>ICD-9 Codes</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary exposure</td>
<td>Alzheimer’s diseases and Related Dementia (ADRD)</td>
<td>290 [290.0-290.3; 290.4-290.43; 290.8-290.9]</td>
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<td></td>
<td></td>
<td>331 [331.0, 331.11, 331.19, 331.6, 331.7, 331.82, 331.89]</td>
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</tr>
<tr>
<td>Mental Health Comorbidities</td>
<td>Alcohol Use Disorder</td>
<td>291 [291.1-291.5, 291.8 (291.81, 291.89), 291.9];</td>
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<td></td>
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<td>303 [303.01-303.03, 303.9 (303.91-303.93)];</td>
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<td></td>
<td></td>
<td>305 [305.01-305.03];790.3,980 [980.8,980.9]; E860.0,E860.1,E860.8,E860.9</td>
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<tr>
<td>Drug Use Disorder</td>
<td></td>
<td>292 [292.1 (292.11, 292.12), 292.2];</td>
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<td></td>
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<td>304 [304.01-304.03, 304.1 (304.11-304.13), 304.2 (304.21-304.23), 304.3 (304.31-304.33), 304.4 (304.41-304.43), 304.5 (304.51-304.53), 304.6 (304.61-304.63), 304.7 (304.71-304.73), 304.8 (304.81-304.83), 304.9 (304.91-304.93)]; 305.2 (305.21-305.23), 305.3 (305.31-305.33), 305.4 (305.41-305.43), 305.5 (305.51-305.53), 305.6 (305.61-305.63), 305.7 (305.71-305.73), 305.8 (305.81-305.83), 305.9 (305.91-305.93), 305.1X</td>
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<tr>
<td>Major Depressive Disorders</td>
<td></td>
<td>296.2 (296.21-296.26), 296.3 (296.31-296.36)</td>
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<tr>
<td>Post Traumatic Stress Disorder</td>
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<td>309.81</td>
<td></td>
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<tr>
<td>Anxiety Disorders</td>
<td></td>
<td>300 [300.01, 300.02, 300.09];799.2</td>
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<tr>
<td>Bipolar Disorders</td>
<td>Combined with a few other rare conditions into “Other psychiatric diagnoses”</td>
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<tr>
<td>296 [296.01-296.06, 296.1 (296.11-296.16), 296.4 (296.41-296.46), 296.5 (296.51-296.56), 296.6 (296.61-296.66), 296.7 (296.71-296.76), 296.8 (296.81, 296.89), 296.9, 296.99]; V11.1</td>
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<thead>
<tr>
<th>Medical comorbidities</th>
<th>Delirium</th>
<th>293.0 (Delirium/Transient Mental Disorders); 780.09 (Unspecified Delirium).</th>
</tr>
</thead>
</table>

| Coronary Artery Disease | 410 [410.01, 410.02, 410.1 (410.11, 410.12), 410.2 (410.21, 410.22), 410.3 (410.31, 410.32), 410.4 (410.41, 410.42), 410.5 (410.51, 410.52), 410.6 (410.61, 410.62), 410.7 (410.71, 410.72), 410.8 (410.81, 410.82), 410.9 (410.91, 410.92)]; 411 [411.1, 411.8 (411.81, 411.89)]; 412; 413 [413.1, 413.9]; 414 [414.01, 414.8, 414.9]; V45.81 |

| Congestive Heart Failure | 402.01, 402.11, 402.91; 404.01, 404.03, 404.11, 404.13, 404.91, 404.93; 428 [428.1, 428.9, 428.2x, 428.3x, 428.4x] |

<p>| Chronic Obstructive Pulmonary Disorder and Allied Conditions | 490.0 | 491.0-491.9 | 492.0-492.8 | 493.0-493.92 | 494.0-494.1 | 496. |</p>
<table>
<thead>
<tr>
<th>Condition</th>
<th>ICD-10 Codes</th>
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</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>250 [250.01-250.03, 250.1 (250.11-250.13), 250.2 (250.21-250.23), 250.3 (250.31-250.33), 250.4 (250.41-250.43), 250.5 (250.51-250.53), 250.6 (250.61-250.63), 250.7 (250.71-250.73), 250.8 (250.81-250.83), 250.9 (250.91-250.93)]; 357.2</td>
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<tr>
<td>Hypertension</td>
<td>401 [401.1, 401.9]; 402 [402.01, 402.1, 402.11, 402.9, 402.91]; 404.1, 404.9; 405 [405.01, 405.09, 405.1 (405.11, 405.19), 405.9, 405.91, 405.99]; 437.2; 403.X; 404.x; 405.x</td>
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<tr>
<td>Chronic Liver disease</td>
<td>570.0</td>
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<td>571.0-571.9</td>
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<td>572.0-572.8</td>
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<td>573.0-573.9</td>
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<tr>
<td>Chronic Renal failure</td>
<td>581.0-581.9</td>
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<td>582.0-582.9</td>
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<td>583.0-583.9</td>
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<td>588.0-588.9</td>
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<tr>
<td>Stroke or Cerebrovascular Disease</td>
<td>433.0 – 433.91</td>
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<td>434.0- 434.91</td>
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<td>435.1-435.9</td>
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<td>436.0</td>
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<td>437.0-437.9</td>
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<td>Diagnosis</td>
<td>Codes</td>
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<td>Parkinson's disease</td>
<td>332.0</td>
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<td>332.1</td>
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