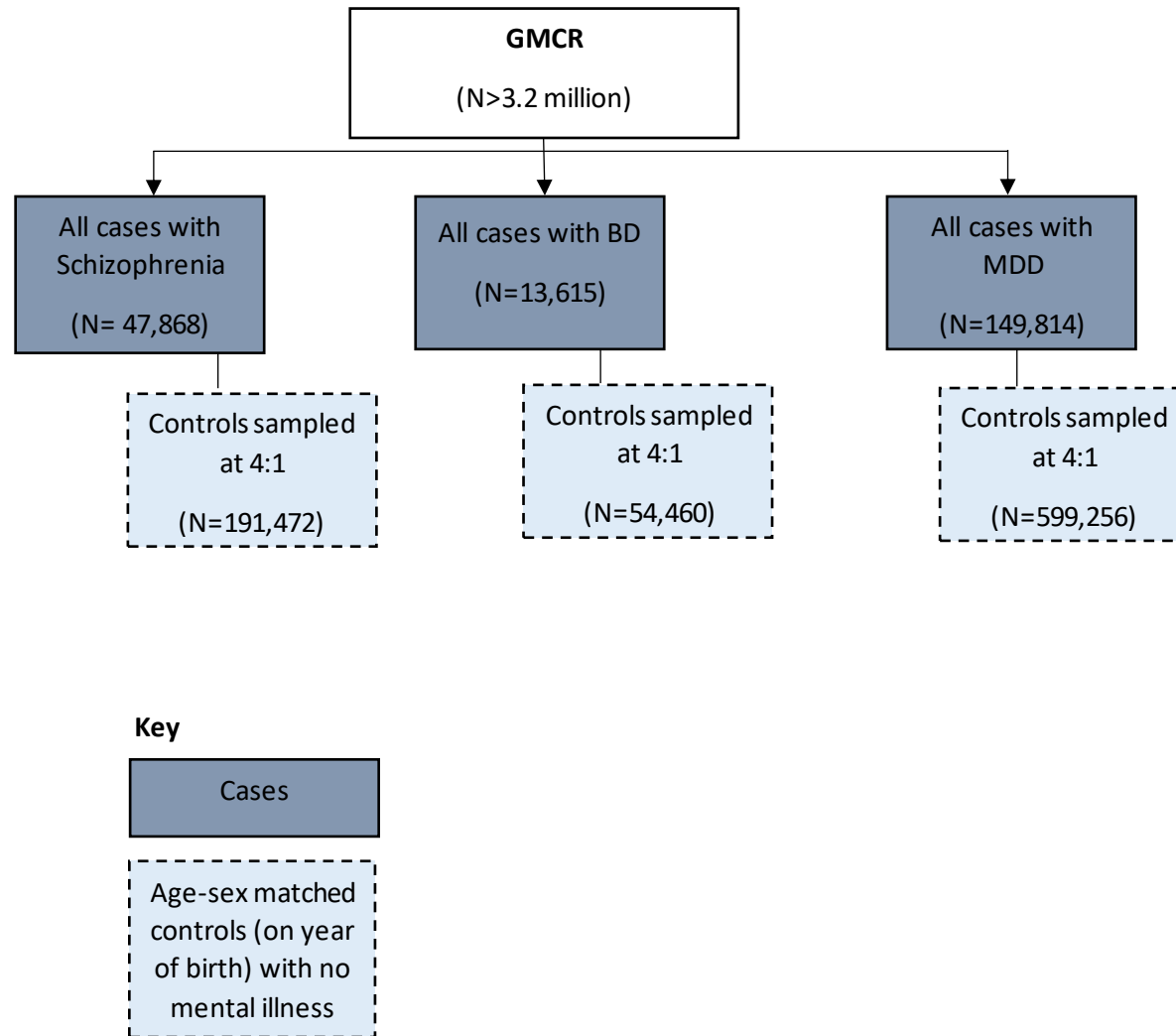


## SUPPLEMENTARY MATERIAL

Figure S1: Flowchart of study sampling



**Figure S2:** Venn diagram illustrating overlap between different psychiatric diagnoses among the sample (n)

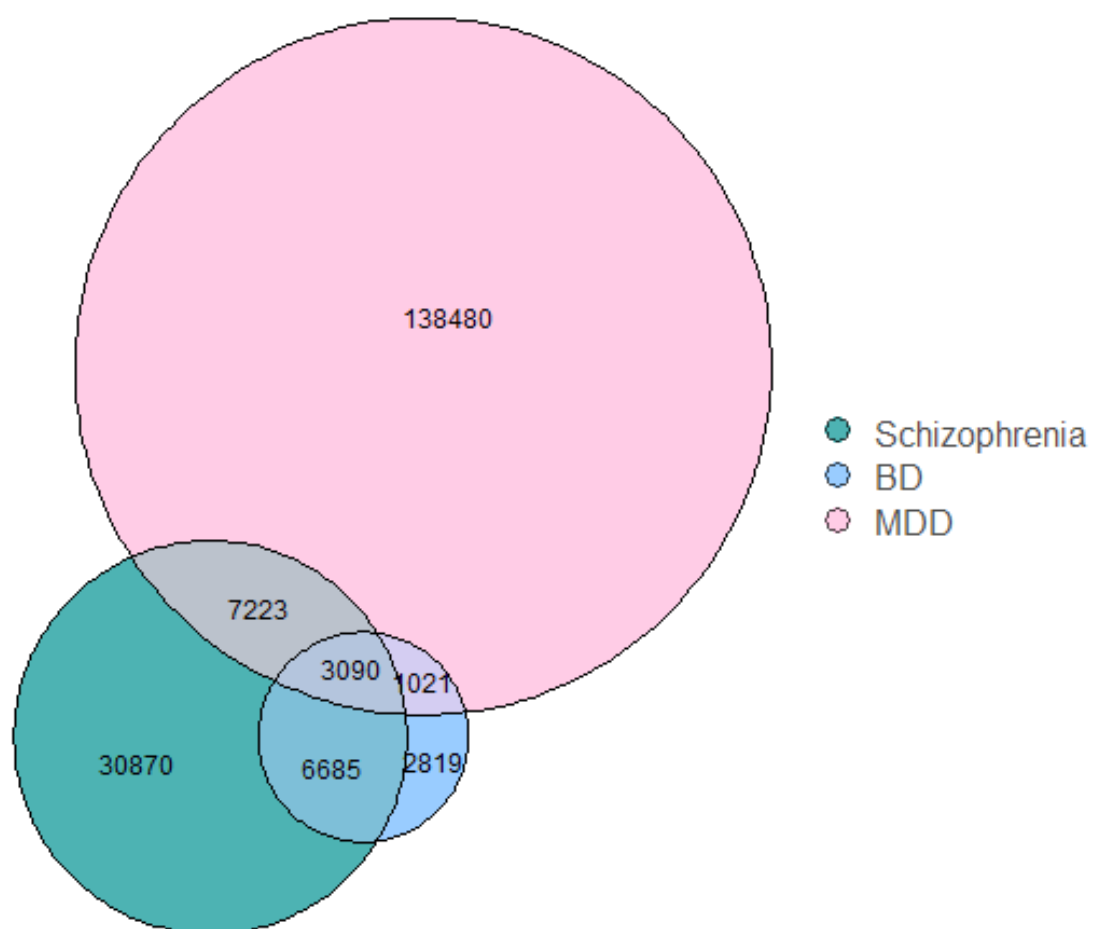


Table S1: URLs where Codelists may be found

Diagnosis	Code set name	URL <sup>1</sup>
<b>Mental illnesses</b>		
Bipolar disorder	Bipolar	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/bipolar/1">https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/bipolar/1</a>
Recurrent MDD	Recurrent-depressive	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/recurrent-depressive/1">https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/recurrent-depressive/1</a>
Schizophrenia/psychosis	Schizophrenia-psychosis	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/schizophrenia-psychosis/1">https://github.com/rw251/gm-idcr/tree/master/shared/clinical-code-sets/conditions/schizophrenia-psychosis/1</a>
<b>Physical illnesses</b>		
Alcohol misuse	Alcohol-problems	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Substance%20Abuse">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Substance%20Abuse</a>
Atrial fibrillation	Atrial-fibrillation	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular</a>
Cancer	Cancer	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cancer">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cancer</a>
CKD	Chronic-kidney-disease	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Renal%20or%20Urological">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Renal%20or%20Urological</a>
Chronic liver disease	Chronic-liver-disease	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Gastrointestinal">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Gastrointestinal</a>
COPD	COPD	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Respiratory">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Respiratory</a>
CHD	Coronary-heart-disease	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular</a>
Dementia	Dementia	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Psychiatric">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Psychiatric</a>
Diabetes	Diabetes	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Endocrine">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Endocrine</a>
Epilepsy	Epilepsy	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological</a>
Heart failure	Heart-failure	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular</a>
Learning disability	Learning-disability	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Sensory%20Impairment%20or%20Learning%20Disability">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Sensory%20Impairment%20or%20Learning%20Disability</a>
Multiple sclerosis	Multiple-sclerosis	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological</a>
Parkinson's disease	Parkinsons-disease	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Neurological</a>
Peripheral vascular disease	Peripheral-vascular-disease	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular</a>
Stroke	Stroke-and-tia	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Cardiovascular</a>
Substance Misuse	Psychoactive-substance-abuse	<a href="https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Substance%20Abuse">https://github.com/rw251/gm-idcr/tree/master/shared/Long-term%20conditions/Substance%20Abuse</a>

<sup>1</sup> Page may include several files relevant to different code systems used by healthcare providers, including Read, ctv, EMIS and SNOMED codes. Note this is a live website and URLs may change slightly if/when updated.

Table S2: Relative risk (RR) of mortality due to COVID-19, by diagnosis – sensitivity analysis using hierarchically defined diagnoses

<b><i>Diagnosis - hierarchical</i></b>	<b>Deaths<sup>1</sup></b> <i>n (%)</i>	<b>Unadjusted<sup>2</sup></b> <i>RR (95% CI)</i>	<b>Adjusted<sup>3</sup></b> <i>aRR (95% CI)</i>
Schizophrenia (N=47,868)	248 (0.5)	3.14 (2.66-3.71)*	1.53 (1.24-1.88)*
Matched control group for SZ (N=191,472)	316 (0.2)	-	-
BD (N=3,840)	18 (0.5)	5.15 (2.57-10.52)*	4.01 (1.89-8.54)*
Matched control group for BD (N=15,360)	14 (0.1)	-	-
MDD (N=138,480)	182 (0.1)	1.32 (1.11-1.56)*	0.88 (0.73-1.06)
Matched control group (N=553,920)	550 (0.1)	-	-

<sup>1</sup> Includes all deaths.

<sup>2</sup> Includes deaths with month and year data.

<sup>3</sup> Includes deaths with month and year data. Adjusted for age, sex, ethnicity, deprivation (IMD decile) and pre-existing comorbidities and vaccination status.

\* Indicates p<.05