

Patient and Provider Characteristics Associated with PHQ-9 Administration and Outcomes Assessment in Routine Clinical Practice: Findings from the OM1 Intelligent Data Cloud

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Objectives

Depression is a debilitating condition that is often comorbid with other chronic illnesses. Primary care is usually the setting for initial screening and routine management of depression patients. The Patient Health Questionnaire (PHQ-9) is a validated instrument for both screening and tracking outcomes in major depression. We examined PHQ-9 usage in routine clinical practice.

Methods

The OM1 Cloud hosts extensively linked clinical and administrative data on tens of millions of patients in the United States. Patients with Electronic Medical Record (EMR) data from 2015–2017 were used as a sample to evaluate the level of recorded use of PHQ-9 in structured data within an EMR.

Results

Of the 23 million patients with outpatient encounters between 2015 and 2017, 184,009 (0.8%) were evaluated for depression using the PHQ-9 and their results were recorded in their EMR. Of the individuals evaluated, 59% were 18-64-years old (**Figure 1**) and the majority were female (58%; **Figure 2**) and Caucasian (82%; **Figure 3**).

The top provider specialties associated with PHQ-9 administration were Family Medicine, Internal Medicine, Psychiatry, Pediatrics and General Medicine (**Figure 4**). Provider types included physician, social worker, nurse practitioner and Physician Assistant (**Figure 5**). Patients assessed with PHQ-9 were likely to have hypertension, hyperlipidemia, major depressive disorder, diabetes mellitus or anxiety disorder conditions (**Figure 6**).

Approximately 64,600 patients with a PHQ-9 measurement had a diagnosis of major depression of whom 66% were on an antidepressant. In this group of treated patients, 47% had a recorded repeat measure within the time period (**Figure 7**).

Conclusions

- The OM1 Intelligent Data Cloud had **>180,000** with PHQ-9 and over **488,000** valid PHQ-9 scores
- Over **60,000** of these patients had a diagnosis of MDD and more than half were treated with anti-depressant medications
- In the outpatient setting, PHQ-9 is predominantly used by primary care providers to either screen for depression or monitor patients with diagnosed and/or treated depression
- With the dissemination of guidelines and expanded quality reporting requirements, this instrument will become more widely available in EMR which will facilitate its use as a standardized outcome for real world studies of comparative effectiveness

Figure 1 Age Distribution of Patients Evaluated with PHQ-9

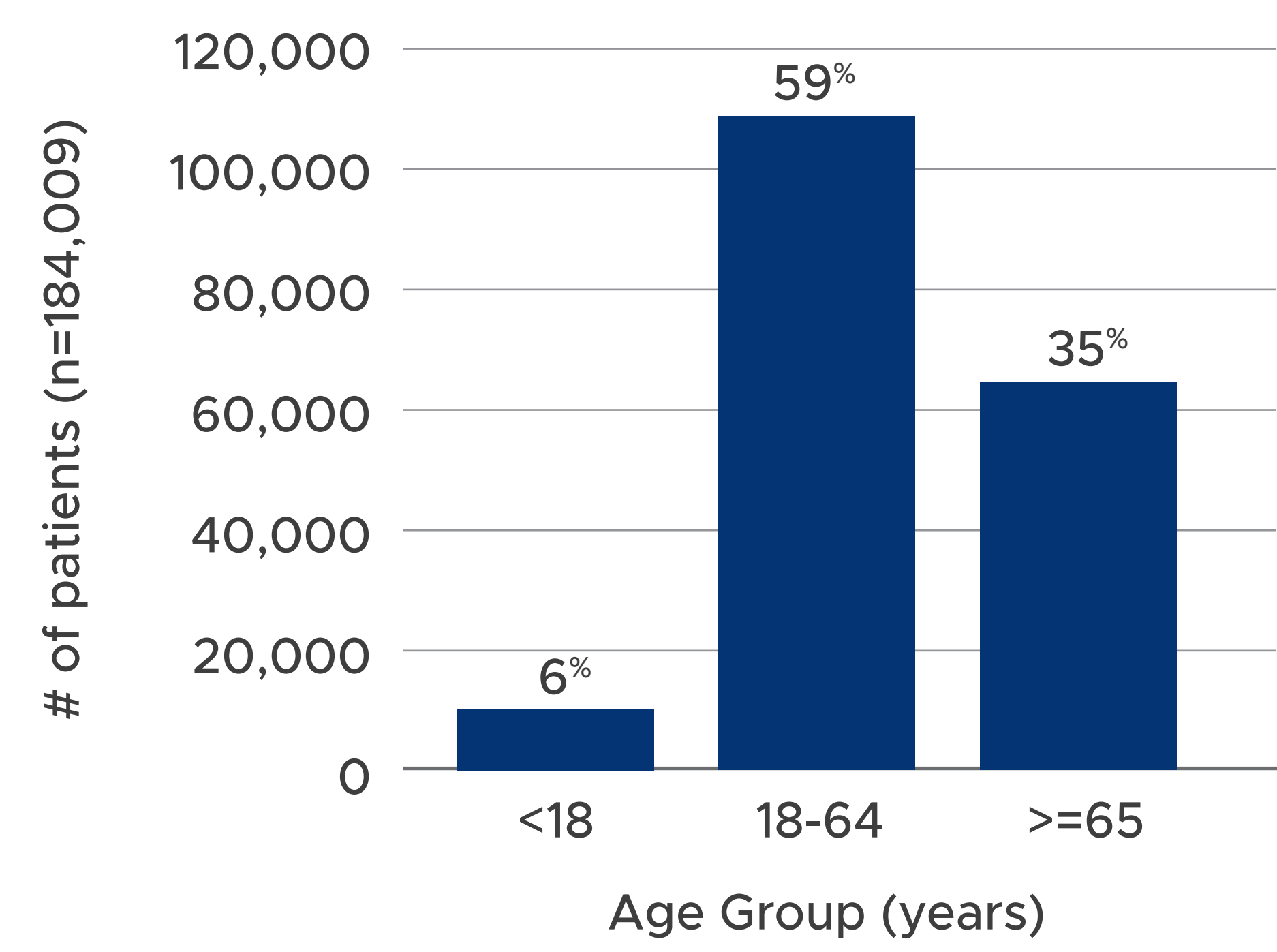


Figure 2 Gender Distribution of Patients Evaluated with PHQ-9

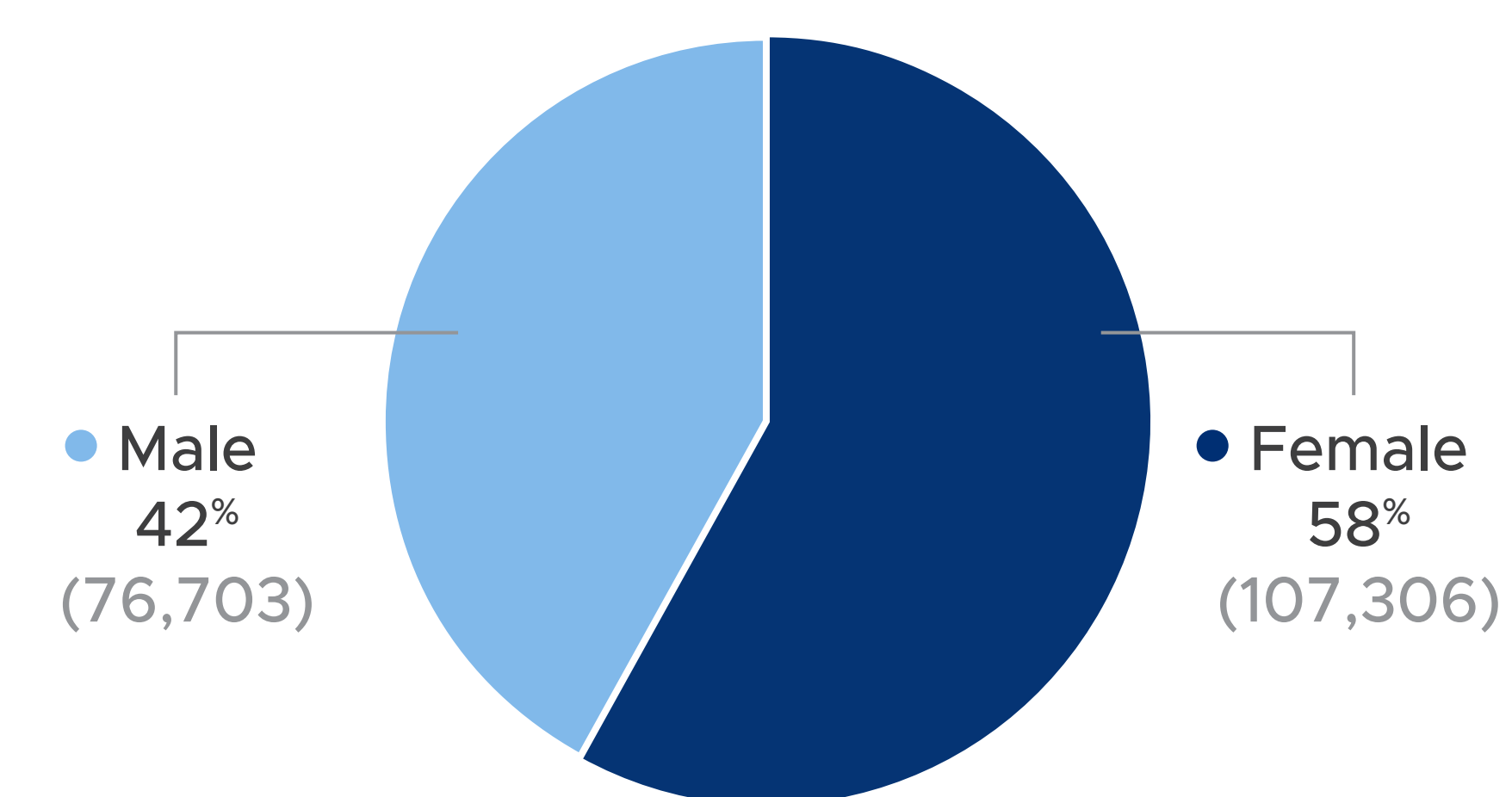


Figure 3 Race Distribution of Patients Evaluated with PHQ-9

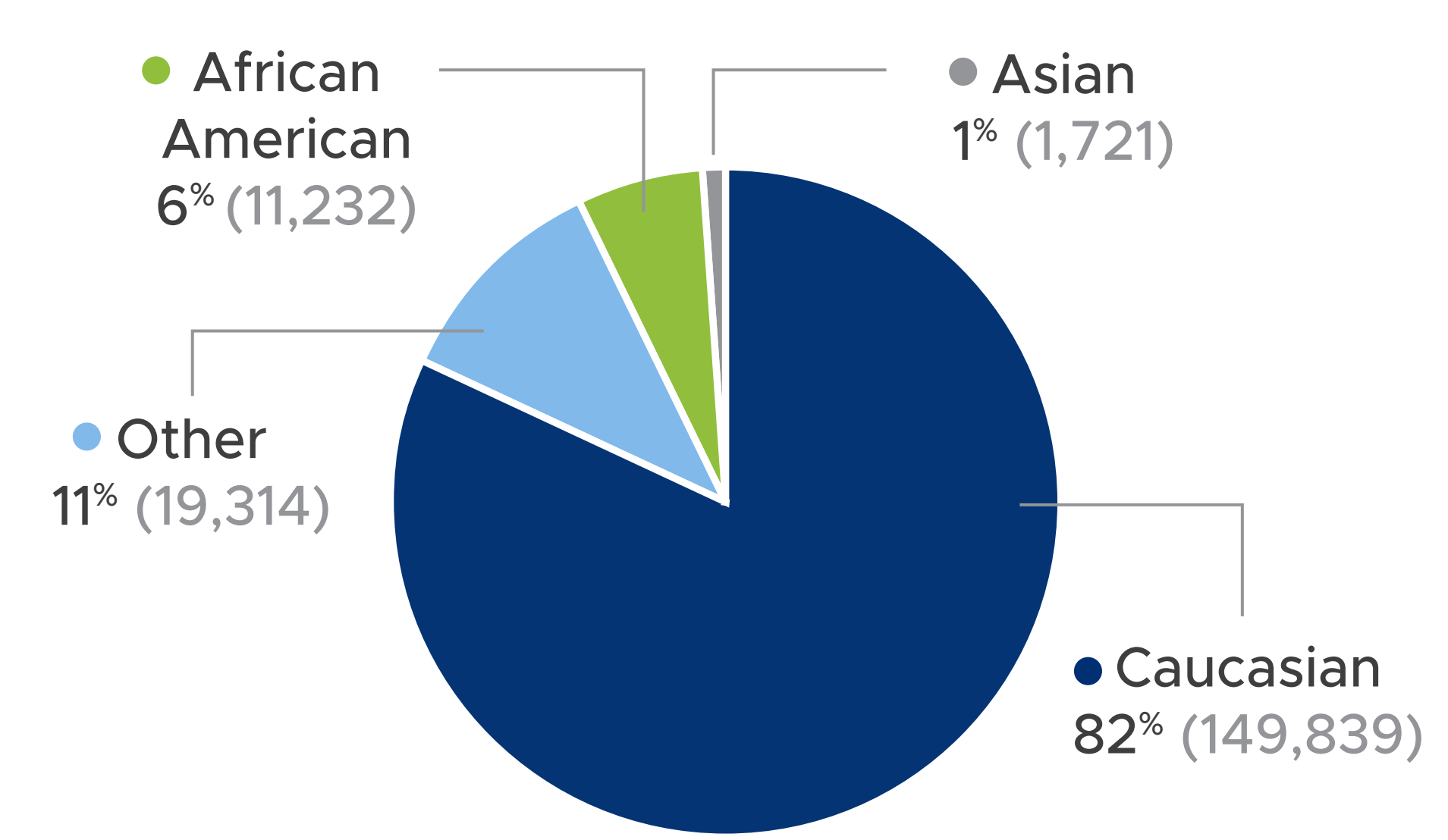


Figure 4 Encounter Provider Specialty When PHQ-9 is Administered

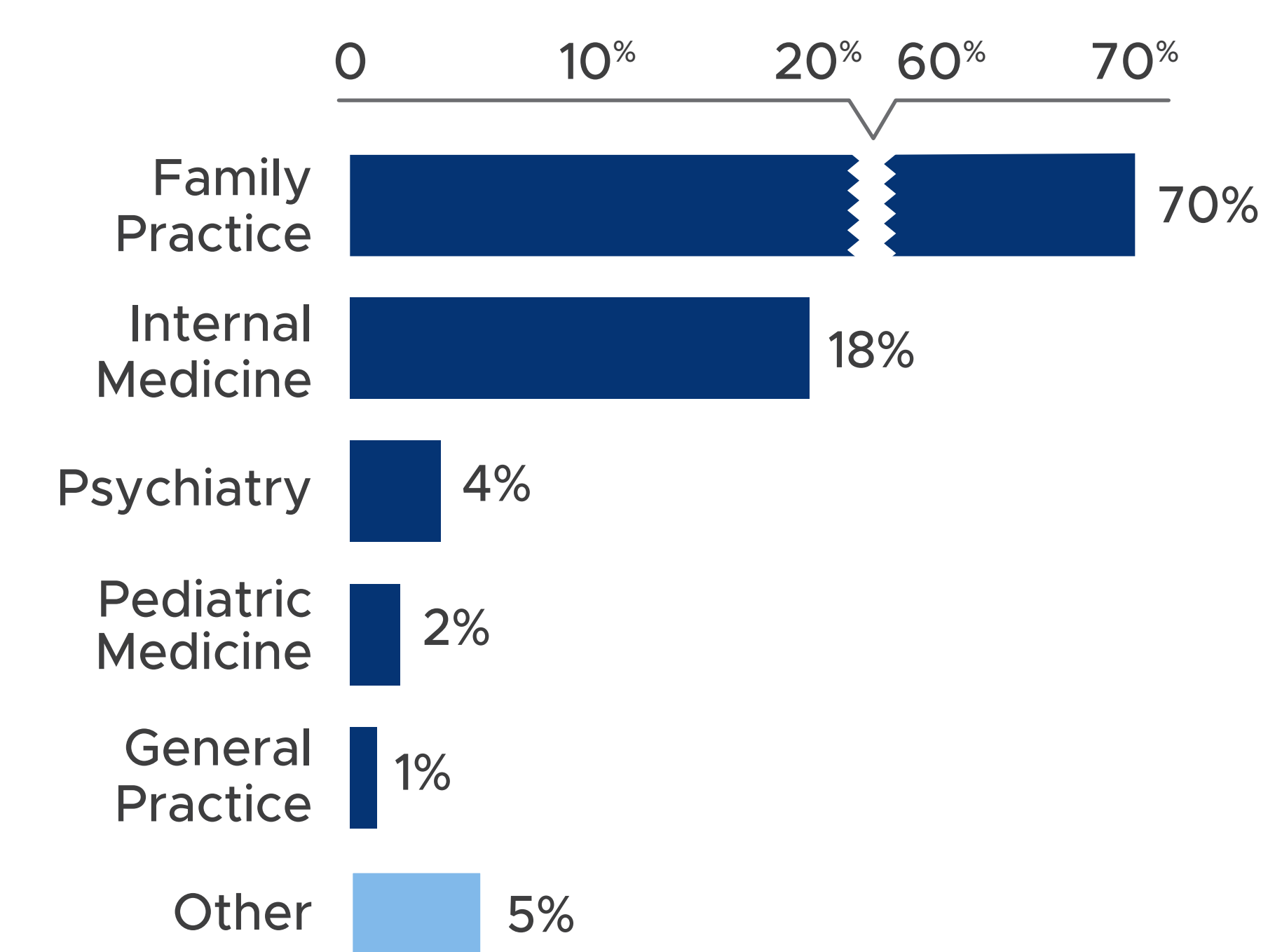


Figure 5 Encounter Provider Type When PHQ-9 is Administered

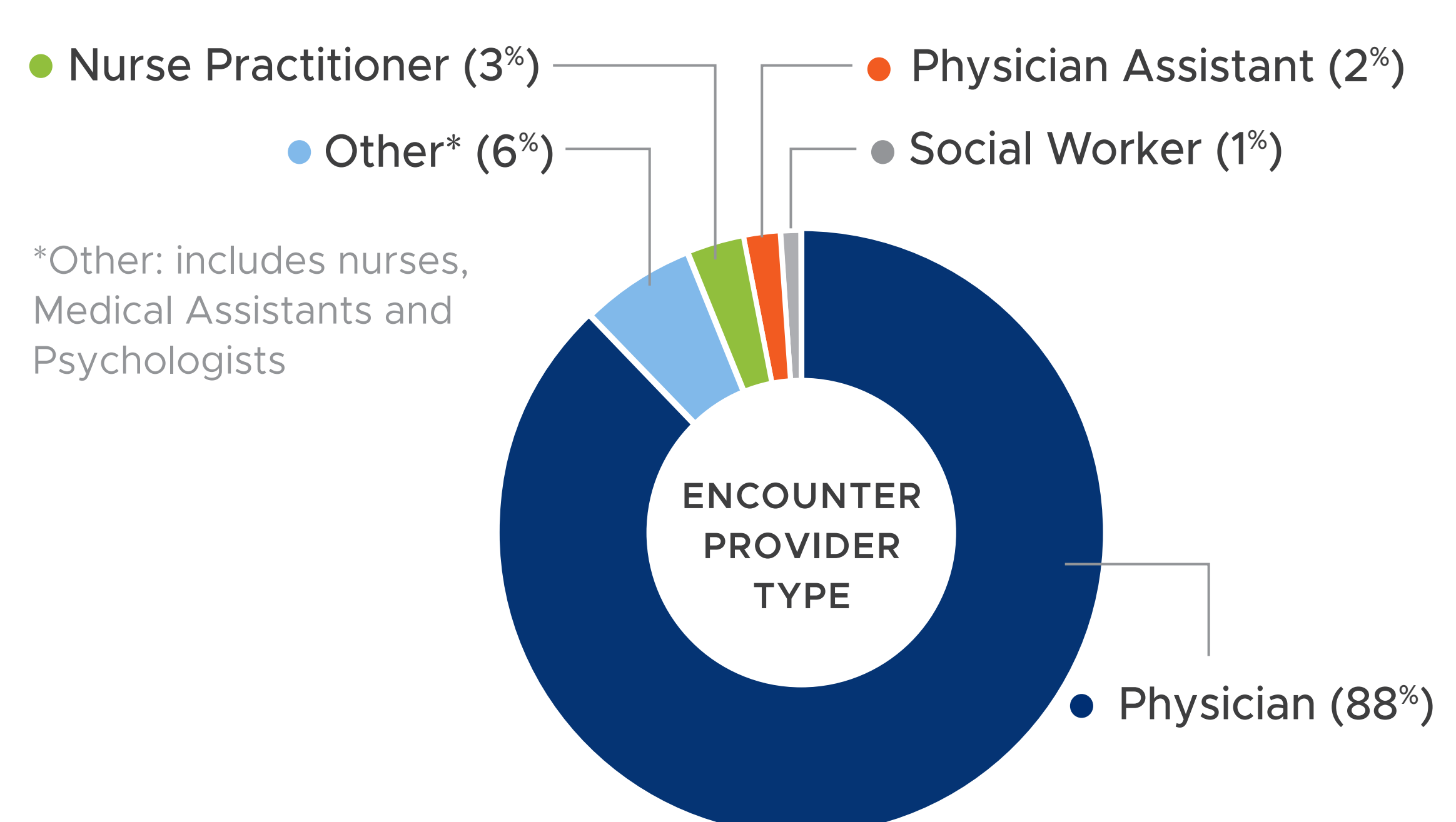


Figure 6 Most Common Comorbidities in Patients Administered with PHQ-9

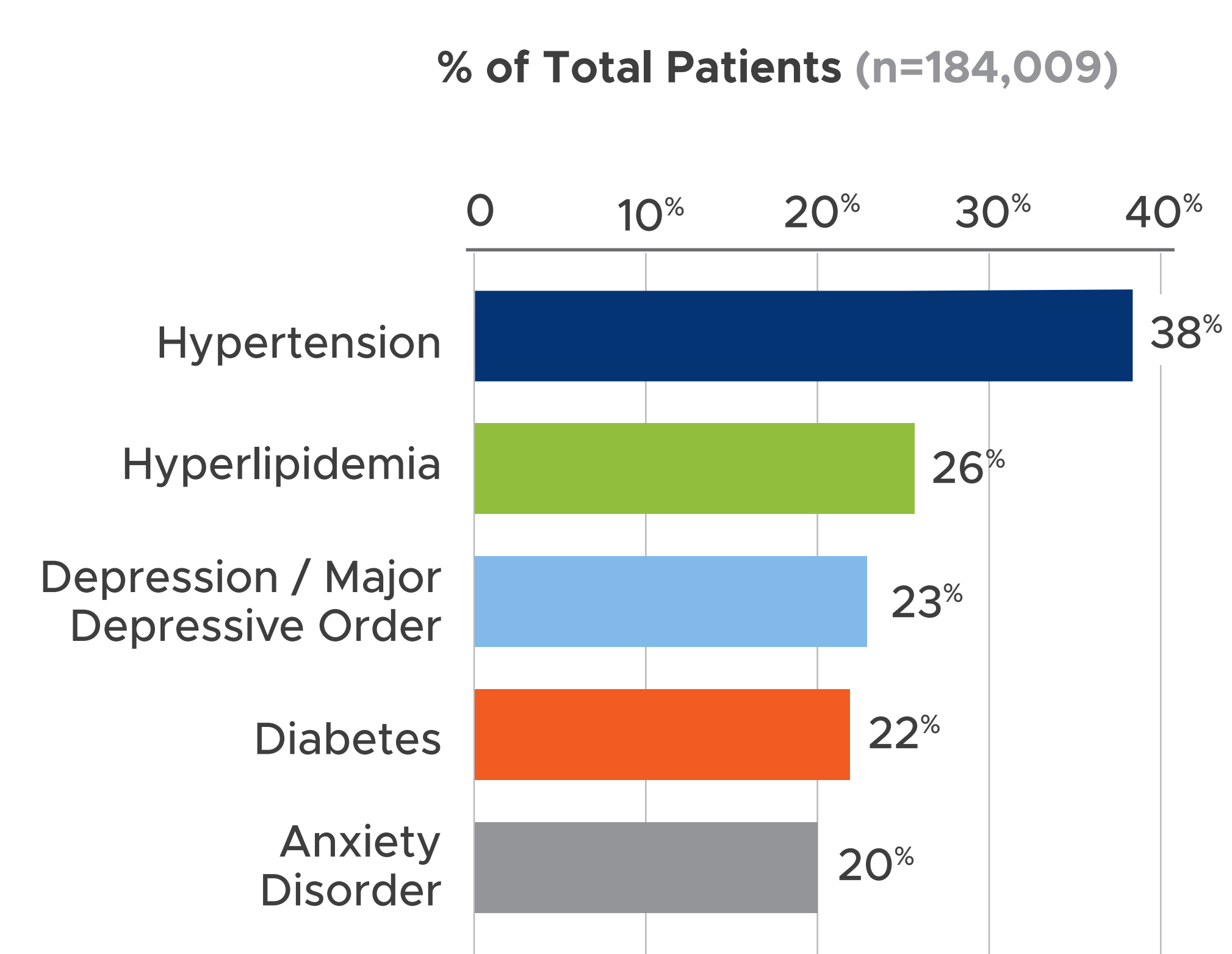


Figure 7 Administration on Patients with Major Depression Disorders (MDD)

