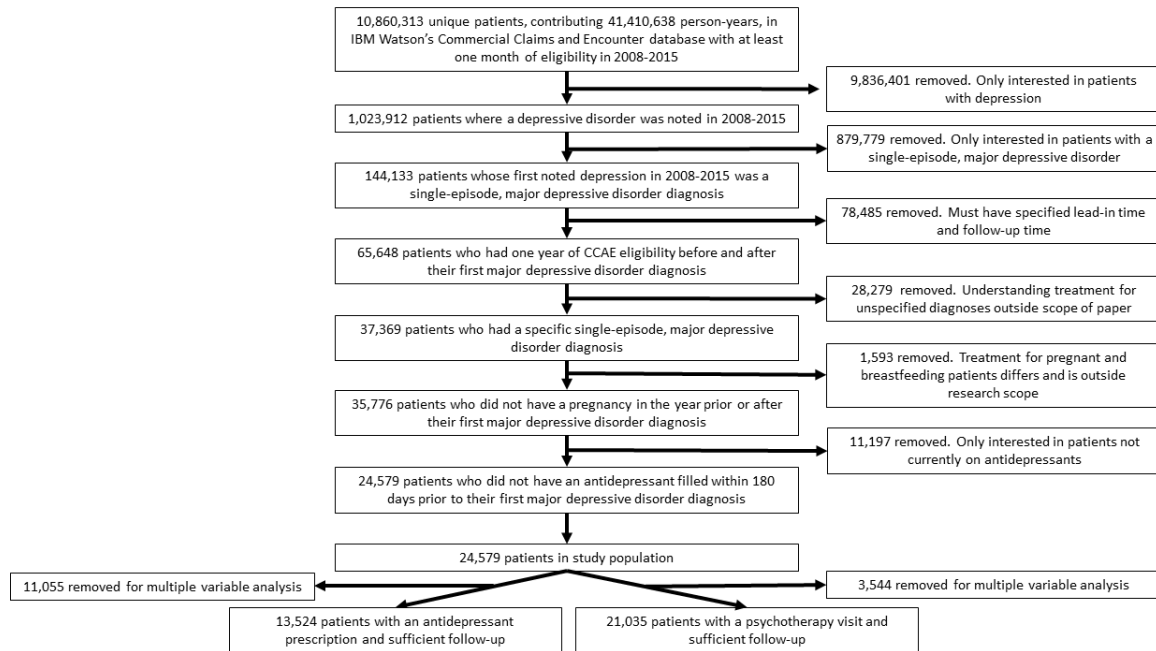


Supplemental Material for
Rates and Determinants of Pharmacological and Psychotherapy Utilization for Patients with Major Depressive Disorder

Flow diagram of inclusion/exclusion steps for generating our study populations



Medical codes used in generating the study population

Medical code used to find first depression diagnosis	Medical code description	Allowed first MDD diagnosis in study population	Diagnosis grouping
296.20	Major Depressive Disorder, Single Episode; Unspecified	FALSE ¹	See caption 1
296.21	Major Depressive Disorder, Single Episode; Mild	TRUE	Mild
296.22	Major Depressive Disorder, Single Episode; Moderate	TRUE	Moderate
296.23	Major Depressive Disorder, Single Episode; Severe, without Mention of Psychotic Behavior	TRUE	Severe
296.24	Major Depressive Disorder, Single Episode; Severe, Specified as with Psychotic Behavior	TRUE	Severe
296.25	Major Depressive Disorder, Single Episode; in Partial or Unspecified Remission	TRUE	Remission
296.26	Major Depressive Disorder, Single Episode; in Full Remission	TRUE	Remission
296.30	Major Depressive Disorder, Recurrent Episode; Unspecified	FALSE	-
296.31	Major Depressive Disorder, Recurrent Episode; Mild	FALSE	-

Medical code used to find first depression diagnosis	Medical code description	Allowed first MDD diagnosis in study population	Diagnosis grouping
296.32	Major Depressive Disorder, Recurrent Episode; Moderate	FALSE	-
296.33	Major Depressive Disorder, Recurrent Episode; Severe, without Mention of Psychotic Behavior	FALSE	-
296.34	Major Depressive Disorder, Recurrent Episode; Severe, Specified as with Psychotic Behavior	FALSE	-
296.35	Major Depressive Disorder, Recurrent Episode; in Partial or Unspecified Remission	FALSE	-
296.36	Major Depressive Disorder, Recurrent Episode; in Full Remission	FALSE	-
293.83	Mood Disorder in Conditions Classified Elsewhere; Transient Organic Psychotic Condition, Depressive Type	FALSE	-
300.4	Dysthymic Disorder; Anxiety Depression, Depression with Anxiety, Depressive Reaction, Neurotic Depressive State, Reactive Depression	FALSE	-
311	Depressive Disorder, Not Elsewhere Classified	FALSE	-
F06.30	Mood disorder due to known physiological condition, unspecified	FALSE	-
F06.31	Mood disorder due to known physiological condition with depressive features	FALSE	-
F06.32	Mood disorder due to known physiological condition with major depressive-like episode	FALSE	-
F06.33	Mood disorder due to known physiological condition with manic features	FALSE	-
F06.34	Mood disorder due to known physiological condition with mixed features	FALSE	-
F32.0	Major depressive disorder, single episode, mild	TRUE	Mild
F32.1	Major depressive disorder, single episode, moderate	TRUE	Moderate
F32.2	Major depressive disorder, single episode, severe without psychotic features	TRUE	Severe
F32.3	Major depressive disorder, single episode, severe with psychotic features	TRUE	Severe
F32.4	Major depressive disorder, single episode, in partial remission	TRUE	Remission
F32.5	Major depressive disorder, single episode, in full remission	TRUE	Remission
F32.9	Major depressive disorder, single episode, unspecified	FALSE ¹	See caption 1
F33.0	Major depressive disorder, recurrent, mild	FALSE	-
F33.1	Major depressive disorder, recurrent, moderate	FALSE	-
F33.2	Major depressive disorder, recurrent severe without psychotic features	FALSE	-

Medical code used to find first depression diagnosis	Medical code description	Allowed first MDD diagnosis in study population	Diagnosis grouping
F33.40	Major depressive disorder, recurrent, in remission, unspecified	FALSE	-
F33.41	Major depressive disorder, recurrent, in partial remission	FALSE	-
F33.42	Major depressive disorder, recurrent, in full remission	FALSE	-
F33.9	Major depressive disorder, recurrent, unspecified	FALSE	-
F34.1	Dysthymic disorder	FALSE	-

¹ Patients included if the first MDD diagnosis was unspecified, but the most common MDD diagnosis in the year after their initial diagnosis was in another allowed MDD diagnosis categories.

Potential variables that were evaluated as predictors for antidepressant adherence in the multiple variable regression models, along with their corresponding distributions (n = 13,524)

Variable description	Variable type	Distribution
Age at first depression diagnosis	Numeric	Median = 41, IQR = 33 - 49
Antidepressant classes were switched at least once during the continuation phase	Binomial	No = 61.3%, Yes = 38.7%
Antidepressant cost share in the continuation phase	Numeric	Median = 0.41, IQR = 0.2 - 0.98
Antidepressant dosage within American Psychiatric Association's recommendations for at least one prescription during the continuation phase	Binomial	No = 21.2%, Yes = 78.8%
Antidepressant PDC is above or equal to 0.8 during the continuation phase	Binomial	No = 68%, Yes = 32%
Antidepressant were mail ordered. At least one prescription during the continuation phase	Binomial	No = 88.3%, Yes = 11.7%
Comorbidity of alcohol abuse in the year prior to first depression diagnosis	Binomial	No = 98.8%, Yes = 1.2%
Comorbidity of an adjustment disorder in year prior to first depression diagnosis	Binomial	No = 88.6%, Yes = 11.4%
Comorbidity of anemia in the year prior to first depression diagnosis	Binomial	No = 97.8%, Yes = 2.2%
Comorbidity of anxiety disorder in the year prior to first depression diagnosis	Binomial	No = 86.1%, Yes = 13.9%
Comorbidity of arrhythmia in the year prior to first depression diagnosis	Binomial	No = 96.7%, Yes = 3.3%
Comorbidity of attention deficit disorder and attention deficit hyperactivity disorder in the year prior to first depression diagnosis	Binomial	No = 98.2%, Yes = 1.8%
Comorbidity of bipolar disorder in the year prior to first depression diagnosis	Binomial	No = 98.4%, Yes = 1.6%
Comorbidity of complicated diabetes mellitus in the year prior to first depression diagnosis	Binomial	No = 98.7%, Yes = 1.3%
Comorbidity of complicated hypertension in the year prior to first depression diagnosis	Binomial	No = 98.9%, Yes = 1.1%
Comorbidity of fluid and electrolyte disorder in the year prior to first depression diagnosis	Binomial	No = 98.2%, Yes = 1.8%
Comorbidity of hypothyroidism in the year prior to first depression diagnosis	Binomial	No = 93.3%, Yes = 6.7%
Comorbidity of liver disease in the year prior to first depression diagnosis	Binomial	No = 97.6%, Yes = 2.4%
Comorbidity of obesity in the year prior to first depression diagnosis	Binomial	No = 94.6%, Yes = 5.4%
Comorbidity of other neurological disorders in the year prior to first depression diagnosis	Binomial	No = 98.6%, Yes = 1.4%

Variable description	Variable type	Distribution
Comorbidity of pulmonary disease in the year prior to first depression diagnosis	Binomial	No = 92.2%, Yes = 7.8%
Comorbidity of pulmonary vascular disorders in the year prior to first depression diagnosis	Binomial	No = 99%, Yes = 1%
Comorbidity of rheumatoid arthritis/ collagen vascular disease in the year prior to first depression diagnosis	Binomial	No = 97.8%, Yes = 2.2%
Comorbidity of solid tumor with metastasis diagnosis in the year prior to first depression diagnosis	Binomial	No = 98%, Yes = 2%
Comorbidity of substance abuse in the year prior to first depression diagnosis	Binomial	No = 96.9%, Yes = 3.1%
Comorbidity of substance related disorders in the year prior to first depression diagnosis	Binomial	No = 98.9%, Yes = 1.1%
Comorbidity of uncomplicated diabetes mellitus in the year prior to first depression diagnosis	Binomial	No = 92.8%, Yes = 7.2%
Comorbidity of uncomplicated hypertension in the year prior to first depression diagnosis	Binomial	No = 81.9%, Yes = 18.1%
Comorbidity of valvular disease in the year prior to first depression diagnosis	Binomial	No = 98.2%, Yes = 1.8%
Comorbidity of weight loss in the year prior to first depression diagnosis	Binomial	No = 98.8%, Yes = 1.2%
First antidepressant prescription was for a norepinephrine dopamine reuptake inhibitor	Binomial	No = 88.3%, Yes = 11.7%
First antidepressant prescription was for a norepinephrine serotonin modulator	Binomial	No = 98%, Yes = 2%
First antidepressant prescription was for a selective serotonin reuptake inhibitor	Binomial	No = 38.1%, Yes = 61.9%
First antidepressant prescription was for a selective serotonin reuptake inhibitor and serotonin modulator (concurrent)	Binomial	No = 95.7%, Yes = 4.3%
First antidepressant prescription was for a serotonin modulator	Binomial	No = 95.3%, Yes = 4.7%
First antidepressant prescription was for a serotonin norepinephrine reuptake inhibitor	Binomial	No = 91.1%, Yes = 8.9%
First antidepressant prescription was for a tricyclic	Binomial	No = 97.3%, Yes = 2.7%
Initial diagnosis by a psychiatrist	Binomial	No = 75.9%, Yes = 24.1%
Initial diagnosis by a psychologist	Binomial	No = 87%, Yes = 13%
Initial diagnosis by a supportive therapist	Binomial	No = 77.6%, Yes = 22.4%
Initial diagnosis in a medical doctor (not elsewhere classified) setting	Binomial	No = 97.9%, Yes = 2.1%
Initial diagnosis in a mental health facility setting	Binomial	No = 97.6%, Yes = 2.4%
Initial diagnosis in a multi-specialty physician group setting	Binomial	No = 98.1%, Yes = 1.9%

Variable description	Variable type	Distribution
Initial diagnosis in an inpatient setting	Binomial	No = 90.9%, Yes = 9.1%
Initial diagnosis in another medical facility (not elsewhere classified) setting	Binomial	No = 98.8%, Yes = 1.2%
Initial diagnosis in the acute care hospital setting	Binomial	No = 96.7%, Yes = 3.3%
Initial diagnosis in the family practice setting	Binomial	No = 82.9%, Yes = 17.1%
Initial diagnosis in the internal medicine setting	Binomial	No = 94.6%, Yes = 5.4%
Mental health services covered by health plan	Binomial	No = 6.1%, Yes = 93.9%
Number of depression diagnoses during the continuation phase	Numeric	Median = 4, IQR = 2 - 10
Number of previous years patient was in the MarketScan databases prior to first depression diagnosis	Numeric	Median = 2.7, IQR = 1.68 - 4.31
Number of primary diagnoses that were depression diagnoses during the continuation phase	Numeric	Median = 4, IQR = 1 - 10
Number of psychiatric visits during the continuation phase	Numeric	Median = 6, IQR = 2 - 13
Patient's initial depression diagnosis classified as in remission	Binomial	No = 98.4%, Yes = 1.6%
Patient's initial depression diagnosis classified as mild	Binomial	No = 81.9%, Yes = 18.1%
Patient's initial depression diagnosis classified as severe	Binomial	No = 68.7%, Yes = 31.3%
Patient's sex	Binomial	No = 55.9%, Yes = 44.1%
Patient covered by a comprehensive health plan at time of first depression diagnosis	Binomial	No = 97.5%, Yes = 2.5%
Patient covered by a consumer directed health plan at time of first depression diagnosis	Binomial	No = 92.7%, Yes = 7.3%
Patient covered by an exclusive provider organization health plan at time of first depression diagnosis	Binomial	No = 98.7%, Yes = 1.3%
Patient covered by a health maintenance organization health plan at time of first depression diagnosis	Binomial	No = 84.5%, Yes = 15.5%
Patient covered by a high deductible health plan at time of first depression diagnosis	Binomial	No = 96.5%, Yes = 3.5%
Patient covered by a point of service health plan at time of first depression diagnosis	Binomial	No = 87.4%, Yes = 12.6%
Patient covered by a preferred provider organization health plan at time of first depression diagnosis	Binomial	No = 42.7%, Yes = 57.3%
Patient in a union at first depression diagnosis	Binomial	No = 71.8%, Yes = 28.2%
Patient lived in a rural location at first depression diagnosis	Binomial	No = 91.9%, Yes = 8.1%
Patient salaried at first depression diagnosis	Binomial	No = 54.7%, Yes = 45.3%

Variable description	Variable type	Distribution
Patient worked in the durable good manufacturing industry at time of first depression diagnosis	Binomial	No = 79.6%, Yes = 20.4%
Patient worked in the finance, insurance, and real estate industry at time of first depression diagnosis	Binomial	No = 77.2%, Yes = 22.8%
Patient worked in the non-durable goods manufacturing industry at time of first depression diagnosis	Binomial	No = 91.3%, Yes = 8.7%
Patient worked in the retail and trade industry at time of first depression diagnosis	Binomial	No = 95.2%, Yes = 4.8%
Patient worked in the services industry at time of first depression diagnosis	Binomial	No = 83.6%, Yes = 16.4%
Patient worked in the transportation, communications, and utilities industry at time of first depression diagnosis	Binomial	No = 74.5%, Yes = 25.5%
Single antidepressant class prescribed during the continuation phase	Binomial	No = 25.2%, Yes = 74.8%
Time to first antidepressant prescription fill from first depression diagnosis	Factor	Within 30 days = 60.9%, Within a year = 24.3%, Over a year = 14.8%
Year of first depression diagnosis	Numeric	Median = 2011, IQR = 2010 - 2013

Potential variables that were evaluated as predictors for psychotherapy utilization in the multiple variable regression models and along with their corresponding distributions (n = 21,035)

Variable description	Variable type	Distribution
Age at first depression diagnosis	Numeric	Median = 40, IQR = 32 - 49
Antidepressant PDC is above or equal to 0.8 in the first 28 days following first psychotherapy visit	Binomial	No = 81.8%, Yes = 18.2%
Comorbidity of alcohol abuse in the year prior to first depression diagnosis	Binomial	No = 98.9%, Yes = 1.1%
Comorbidity of an adjustment disorder in year prior to first depression diagnosis	Binomial	No = 87%, Yes = 13%
Comorbidity of anemia in the year prior to first depression diagnosis	Binomial	No = 98.1%, Yes = 1.9%
Comorbidity of anxiety disorder in the year prior to first depression diagnosis	Binomial	No = 86.7%, Yes = 13.3%
Comorbidity of arrhythmia in the year prior to first depression diagnosis	Binomial	No = 97.1%, Yes = 2.9%
Comorbidity of attention deficit disorder and attention deficit hyperactivity disorder in the year prior to first depression diagnosis	Binomial	No = 98.2%, Yes = 1.8%
Comorbidity of bipolar disorder in the year prior to first depression diagnosis	Binomial	No = 98.3%, Yes = 1.7%
Comorbidity of complicated diabetes mellitus in the year prior to first depression diagnosis	Binomial	No = 98.9%, Yes = 1.1%
Comorbidity of complicated hypertension in the year prior to first depression diagnosis	Binomial	No = 99%, Yes = 1%
Comorbidity of fluid and electrolyte disorder in the year prior to first depression diagnosis	Binomial	No = 98.4%, Yes = 1.6%
Comorbidity of hypothyroidism in the year prior to first depression diagnosis	Binomial	No = 94%, Yes = 6%
Comorbidity of liver disease in the year prior to first depression diagnosis	Binomial	No = 97.9%, Yes = 2.1%
Comorbidity of obesity in the year prior to first depression diagnosis	Binomial	No = 94.8%, Yes = 5.2%
Comorbidity of other neurological disorders in the year prior to first depression diagnosis	Binomial	No = 98.7%, Yes = 1.3%
Comorbidity of pulmonary disease in the year prior to first depression diagnosis	Binomial	No = 93%, Yes = 7%
Comorbidity of rheumatoid arthritis/ collagen vascular disease in the year prior to first depression diagnosis	Binomial	No = 98%, Yes = 2%
Comorbidity of solid tumor with metastasis diagnosis in the year prior to first depression diagnosis	Binomial	No = 98.1%, Yes = 1.9%

Variable description	Variable type	Distribution
Comorbidity of substance abuse in the year prior to first depression diagnosis	Binomial	No = 97.5%, Yes = 2.5%
Comorbidity of uncomplicated diabetes mellitus in the year prior to first depression diagnosis	Binomial	No = 93.7%, Yes = 6.3%
Comorbidity of uncomplicated hypertension in the year prior to first depression diagnosis	Binomial	No = 83.8%, Yes = 16.2%
Comorbidity of valvular disease in the year prior to first depression diagnosis	Binomial	No = 98.4%, Yes = 1.6%
Comorbidity of weight loss in the year prior to first depression diagnosis	Binomial	No = 99%, Yes = 1%
Initial diagnosis by a psychiatrist	Binomial	No = 79.2%, Yes = 20.8%
Initial diagnosis by a psychologist	Binomial	No = 78.1%, Yes = 21.9%
Initial diagnosis by a supportive therapist	Binomial	No = 63.2%, Yes = 36.8%
Initial diagnosis in a medical doctor (not elsewhere classified) setting	Binomial	No = 98.5%, Yes = 1.5%
Initial diagnosis in a mental health facility setting	Binomial	No = 97.4%, Yes = 2.6%
Initial diagnosis in an inpatient setting	Binomial	No = 94.1%, Yes = 5.9%
Initial diagnosis in another medical facility (not elsewhere classified) setting	Binomial	No = 98.7%, Yes = 1.3%
Initial diagnosis in the acute care hospital setting	Binomial	No = 97.8%, Yes = 2.2%
Initial diagnosis in the family practice setting	Binomial	No = 94.6%, Yes = 5.4%
Initial diagnosis in the internal medicine setting	Binomial	No = 98.2%, Yes = 1.8%
Mental health services covered by health plan	Binomial	No = 6.7%, Yes = 93.3%
Number of previous years patient was in the MarketScan databases prior to first depression diagnosis	Numeric	Median = 2.73, IQR = 1.69 - 4.32
Patient's initial depression diagnosis classified as in remission	Binomial	No = 98.7%, Yes = 1.3%
Patient's initial depression diagnosis classified as mild	Binomial	No = 80%, Yes = 20%
Patient's initial depression diagnosis classified as severe	Binomial	No = 69.4%, Yes = 30.6%
Patient's sex	Binomial	No = 52.4%, Yes = 47.6%
Patient covered by a comprehensive health plan at time of first depression diagnosis	Binomial	No = 97.4%, Yes = 2.6%
Patient covered by a consumer directed health plan at time of first depression diagnosis	Binomial	No = 92.1%, Yes = 7.9%
Patient covered by an exclusive provider organization health plan at time of first depression diagnosis	Binomial	No = 98.8%, Yes = 1.2%

Variable description	Variable type	Distribution
Patient covered by a health maintenance organization health plan at time of first depression diagnosis	Binomial	No = 84.8%, Yes = 15.2%
Patient covered by a high deductible health plan at time of first depression diagnosis	Binomial	No = 96.7%, Yes = 3.3%
Patient covered by a point of service health plan at time of first depression diagnosis	Binomial	No = 87.2%, Yes = 12.8%
Patient covered by a preferred provider organization health plan at time of first depression diagnosis	Binomial	No = 43.1%, Yes = 56.9%
Patient filled an antidepressant prior to first psychotherapy visit	Binomial	No = 47.1%, Yes = 52.9%
Patient in a union at first depression diagnosis	Binomial	No = 72.3%, Yes = 27.7%
Patient lived in a rural location at first depression diagnosis	Binomial	No = 92.2%, Yes = 7.8%
Patient received at least four psychotherapy visits in the first 28 days following first psychotherapy visit	Binomial	No = 68.8%, Yes = 31.2%
Patient salaried at first depression diagnosis	Binomial	No = 50.3%, Yes = 49.7%
Patient worked in the durable good manufacturing industry at time of first depression diagnosis	Binomial	No = 79%, Yes = 21%
Patient worked in the finance, insurance, and real estate industry at time of first depression diagnosis	Binomial	No = 76.2%, Yes = 23.8%
Patient worked in the non-durable goods manufacturing industry at time of first depression diagnosis	Binomial	No = 91.1%, Yes = 8.9%
Patient worked in the retail and trade industry at time of first depression diagnosis	Binomial	No = 96.3%, Yes = 3.7%
Patient worked in the services industry at time of first depression diagnosis	Binomial	No = 84.2%, Yes = 15.8%
Patient worked in the transportation, communications, and utilities industry at time of first depression diagnosis	Binomial	No = 74.4%, Yes = 25.6%
Percent of psychotherapy costs covered by patient	Numeric	Median = 0.2, IQR = 0.1 - 0.36
Time to first psychotherapy visit from first depression diagnosis	Factor	Within 30 days = 93.4%, Within a year = 4.2%, Over a year = 2.4%
Year of first depression diagnosis	Numeric	Median = 2011, IQR = 2010 - 2013

Provider types of clinicians diagnosing the initial depression and the distribution of depression severity.

Provider type ¹	Diagnosed with any depression (%)	Diagnosed as depression in remission (%)	Diagnosed as mild depression (%)	Diagnosed as moderate depression (%)	Diagnosed as severe depression (%)
Therapists (Supportive)	31.0	12.0	34.2	31.6	28.7
Psychologist	18.4	8.8	20.7	18.5	17.3
Psychiatry	18.1	21.2	7.9	18.0	25.8
Family Practice	11.6	20.4	16.2	12.4	6.3
Other²	5.8	8.5	6.3	5.5	5.5
Internal Medicine (NEC)	3.9	7.7	5.7	4.1	1.9
Acute Care Hospital	2.5	4.2	1.0	1.8	4.8
Mental Health Facilities	2.3	2.6	1.7	2.0	3.3
Medical Doctor - MD (NEC)	1.7	7.0	1.2	1.6	1.8
Multi-Specialty Physician Group	1.4	3.5	1.8	1.4	0.9
Other Facility (NEC)	1.3	1.3	0.9	1.0	2.1

¹ As defined by IBM® MarketScan®

² Combines all provider types with less than 1% of patients

Mental health treatment utilization in the 12 months post MDD diagnosis by health insurance plan type

Health Insurance Plan Type	N	No Treatment (%)	Rx Only (%)	Psychotherapy Only (%)	Rx + Psychotherapy (%)	Median (IQR) PDC ¹	Median (IQR) Psych Visits ¹
All	24,579	5.3	11.2	47.3	36.2	0.38 (0.16-0.74)	7 (3-16)
Consumer driven health plan	1,996	6.4	12.0	49.4	32.2	0.41 (0.16-0.77)	7 (3-17)
Comprehensive	613	5.2	6.0	48.5	40.3	0.32 (0.10-0.70)	7 (3-16)
Exclusive provider organization	299	6.4	11.4	47.5	34.8	0.42 (0.16-0.75)	8 (4-17)
High-deductible health plan	894	9.2	16.6	42.5	31.8	0.45 (0.16-0.81)	6 (3-15)
Health maintenance organization	3,692	5.4	10.8	48.0	35.8	0.38 (0.16-0.73)	8 (3-18)
Point-of-service	3,000	4.6	8.2	48.3	38.9	0.33 (0.12-0.70)	8 (3-18)
Preferred provider organization	13,946	5.0	11.6	47.0	36.4	0.38 (0.16-0.75)	7 (3-16)
Missing	139	7.2	14.4	41.7	36.7	0.29 (0.11-0.72)	8 (3-17)

¹ Statistics only include those initiating treatment within the 12 months post MDD diagnosis

The percent of individuals by antidepressant type whose first antidepressant prescription was below or above the American Psychiatric Association's starting dosage recommendation.

Antidepressant Type (Class)	N	% Under	% Over	% Outside
Escitalopram (SSRI)	2,459	5.2	15.2	20.4
Sertraline (SSRI)	2,425	16.9	13.4	30.3
Citalopram (SSRI)	2,341	20.8	7.9	28.8
Bupropion (NDRA)	1,823	14.6	10.7	25.3
Fluoxetine (SSRI)	1,191	30.8	3.8	34.6
Trazodone (SM)	685	96.8	0.3	97.1
Duloxetine HCl (SNRI)	589	53.5	0	53.5
Paroxetine (SSRI)	491	0.8	54.6	55.4
Venlafaxine HCl (SNRI)	414	43.5	1.9	45.4
Amitriptyline & Comb. (TCA)	266	2.3	26.3	28.6
Mirtazapine (SM)	197	60.9	6.1	67.0
Nortriptyline (TCA)	195	0	9.7	9.7
Desvenlafaxine (SNRI)	2,459	5.2	15.2	20.4

The percent of individuals by depression severity whose first antidepressant prescription was either below or above the American Psychiatric Association's starting dosage recommendation. Results only shown for groups with at least 100 patients.

Antidepressant Type (Class)	Mild depression				Moderate depression				Severe depression			
	N	% Under	% Over	% Outside	N	% Under	% Over	% Outside	N	% Under	% Over	% Outside
Citalopram (SSRI)	430	26.3	6.7	33.0	1,198	20.9	7.3	28.1	672	17.4	9.2	26.6
Sertraline (SSRI)	468	19.7	12.2	31.8	1,190	16.0	10.7	26.6	724	16.7	17.4	34.1
Escitalopram (SSRI)	479	6.5	13.4	19.8	1,159	4.8	15.4	20.2	790	4.7	16.5	21.1
Bupropion (NDRA)	401	13.2	11.0	24.2	916	14.4	8.7	23.1	468	15.6	14.1	29.7
Fluoxetine (SSRI)	252	34.5	4.4	38.9	598	31.8	3.2	34.9	308	26.9	3.6	30.5
Trazodone (SM)	130	96.2	0	96.2	318	96.5	0	96.5	223	97.3	0.9	98.2
Duloxetine HCl (SNRI)	-	-	-	-	285	50.9	0	50.9	207	54.1	0	54.1
Venlafaxine HCl (SNRI)	-	-	-	-	259	1.2	48.6	49.8	136	0	67.6	67.6
Paroxetine (SSRI)	117	37.6	12.0	49.6	256	31.6	7.8	39.5	171	34.5	11.1	45.6
Amitriptyline & Comb. (TCA)	-	-	-	-	203	46.3	2.0	48.3	120	37.5	0	37.5
Mirtazapine (SM)	-	-	-	-	120	3.3	24.2	27.5	121	1.7	27.3	28.9
Nortriptyline (TCA)	-	-	-	-	113	62.8	8.8	71.7	-	-	-	-

Antidepressant adherence in the acute and continuation phase by MDD severity and number of antidepressants filled during the treatment phase

Depression Diagnosis	Adherence in the acute phase						Adherence in the continuation phase					
	All		Single antidepressant class filled		Multiple antidepressant classes filled		All		Single antidepressant class filled		Multiple antidepressant classes filled	
	N	%	N	%	N	%	N	%	N	%	N	%
Remission	213	49.3	178	47.2	35	60.0	213	39.4	167	37.1	46	47.8
Mild	2,454	42.1	2,103	40.2	351	53.6	2,454	31.6	1,996	29.4	458	41.5
Moderate	6,629	44.1	5,356	41.2	1,273	56.6	6,629	34.6	4,994	32.0	1,635	42.4
Severe	4,228	37.4	3,198	33.8	1,030	48.5	4,228	28.0	2,963	25.0	1,265	34.9
All	13,524	41.7	10,835	38.9	2,689	53.1	13,524	32.0	10,120	29.5	3,404	39.6

Results from the logistic regression model assessing the determinants of psychotherapy utilization (n = 21,035). Variables were selected using the lasso procedure.

Variable	Odds ratio	95% confidence interval	p-value
Time to first psychotherapy visit from initial depression diagnosis. ≤30 days as reference			
30 to ≤365 days	0.59	0.49-0.70	<0.0001
>365 days	0.62	0.49-0.78	<0.0001
Initial depression severity. Moderate as reference			
Remission	0.77	0.57-1.04	0.084
Mild	0.89	0.82-0.96	0.004
Severe	1.29	1.20-1.38	<0.0001
First depression diagnosed in an inpatient setting (0 = no, 1= yes)	1.24	1.09-1.42	0.001
Percent of psychotherapy costs covered by patient ¹	0.90	0.81-1.00	0.041
Prior antidepressant fill (0 = no, 1 = yes)	1.32	1.24-1.40	<0.0001
Salaried employee (0 = no, 1 = yes) ²	1.19	1.11-1.27	<0.0001
Patient in a union (0 = no, 1 = yes) ²	1.33	1.24-1.44	<0.0001
Comorbidities (0 = not present, 1 = present) ³			
Adjustment disorders	1.40	1.28-1.52	<0.0001
Anxiety disorders	1.40	1.29-1.53	<0.0001
Arrhythmia	0.75	0.62-0.91	0.003
Attention deficit disorder and attention deficit hyperactivity disorder	0.73	0.57-0.93	0.011
Fluid and electrolyte disorder	0.74	0.57-0.95	0.02
Obesity	0.75	0.65-0.86	<0.0001
Rheumatoid arthritis/ collagen vascular disease	0.77	0.62-0.97	0.025
Solid tumor with metastasis diagnosis	0.75	0.60-0.95	0.017
Work industry (0 = not in industry, 1 = in industry) ²			
Manufacturing non-durable goods	0.86	0.76-0.96	0.007

Variable	Odds ratio	95% confidence interval	p-value
Retail and trade	0.85	0.71-1.01	0.062
Finance, insurance, and real estate	1.12	1.04-1.20	0.004
Patient covered by point of service health plan (0 = no, 1 = yes) ²	1.08	0.98-1.18	0.108
Setting of initial depression diagnosis (0= not at setting, 1= at setting)			
Acute care hospital	1.29	1.04-1.60	0.023
Family practice	0.97	0.82-1.15	0.706
Other facility not elsewhere specified	0.73	0.54-0.98	0.034
Psychiatry	0.61	0.54-0.68	<0.0001
Psychologist	1.41	1.26-1.58	<0.0001
Supportive therapist	1.22	1.10-1.36	<0.0001
¹ In the 28 days after the first psychotherapy visit			
² At the time of the first depression diagnosis			
³ Noted in the medical claim records in the year prior to the first depression diagnosis			