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The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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Overview for Request: cder_mpl1r_wp077, Report 2

Request ID: cder_mpl1r_wp077_nsdv_v01

Request Description: The goal of this request was to estimate and describe the number of neuropsychiatric events and psychotropic medication use among patients using montelukast, zafirlukast, inhaled corticosteroids, or nasal corticosteroids in the Sentinel Distributed Database (SDD). This is Report 2 of 2. Please see Report 1 for counts of new users of montelukast, zafirlukast, inhaled corticosteroids, and nasal corticosteroids.

Sentinel Modular Program Tool Used: Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.2.1

Data Source: Data from January 1, 2000 to September 30, 2015 from 16 Data Partners contributing to the SDD were included in this report. This request was distributed to Data Partners on March 22, 2018. See Appendix A for a list of dates of available data for each Data Partner.

Seven of the 16 Data Partners contributed cause-of-death data to the SDD. Data were also reported separately for these 7 data partners. See Appendix A.1 for a list of the latest dates of available data for each Data Partner with cause-of-death data.

Study Design: This request was designed to calculate the prevalence of neuropsychiatric events and psychotropic medication use. The number of qualifying patients with the events of interest was calculated overall and stratified by age group, sex, and year.

Events of Interest: The events of interest were prevalent counts of neuropsychiatric events and psychotropic medication use. Neuropsychiatric events include the following: anxiousness, drug induced mental disorders, conduct disturbances, disorders of attention, delirium and psychosis, movement disorders, mood disorders, suicidal thinking and behavior, sleep disorders, and hallucinations. Psychotropic medications include antianxiety agents, sedative hypnotics, antidepressants, antipsychotics, attention deficit hyperactivity disorder (ADHD) agents, and mood stabilizing agents. All qualifying events that occurred between January 1, 2000 and September 30, 2015 were included. Please refer to Appendix B for specific International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnosis codes used to define neuropsychiatric events and Appendix C for a list of generic and brand drug names used to define psychotropic medications in this request.

Cohort Eligibility Criteria: Patients included in the cohort were required to be continuously enrolled in plans with medical and drug coverage for at least six months (183 days) prior to their first qualifying neuropsychiatric event or psychotropic medication dispensing date (index date), during which gaps in coverage of up to 45 days were allowed. The following age groups were included in the cohort: 0-11, 12-17, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75+ years.

Inclusion Criteria: Prior history of montelukast, zafirlukast, inhaled corticosteroid, or nasal corticosteroid use in the 183 days before the index-defining event was required for entry into the cohort. Montelukast, zafirlukast, inhaled corticosteroids, and nasal corticosteroids were defined using National Drug Codes (NDCs). Please see Appendix D for a list of generic and brand drug names used to define inclusions in this request.

Baseline Characteristics: The following characteristics were assessed at baseline: age group, sex, index year, Charlson/Elixhauser combined comorbidity score¹, and care setting. Occurrence of these characteristics was evaluated on the index date (day 0) for the events of interest.

Please see the Appendix E for the specifications of parameters used in this request.

Limitations: Algorithms to define exposures and characteristics are imperfect and may not have been validated; thus, members may be misclassified. Therefore, data should be interpreted with this limitation in mind.

Notes: Please contact the Sentinel Operations Center Query Fulfillment Team (qf@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document.

¹Gagne, J. J., Glynn, R. J., Avorn, J., Levin, R., Schneeweiss, S. (2011). "A combined comorbidity score predicted mortality in elderly patients better than existing scores." J Clin Epidemiol 64(7):749-759.

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**Glossary of Terms for Analyses Using
Cohort Identification and Descriptive Analysis (CIDA) Tool***

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

Blackout Period - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

Ambulatory Visit (AV) - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

Emergency Department (ED) - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

Inpatient Hospital Stay (IP) - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

Non-Acute Institutional Stay (IS) - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

Other Ambulatory Visit (OA) - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

Charlson/Elixhauser Combined Comorbidity Score - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

Cohort Definition (drug/exposure) - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.

Eligible Members - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

Enrollment Gap - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

Episodes - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

Episode Gap - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

Event Deduplication - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."

Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

Lookback Period - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

Maximum Episode Duration - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Member-Years - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

Minimum Days Supplied - specifies a minimum number of days in length of the days supplied for the episode to be considered.

Minimum Episode Duration - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Monitoring Period - used to define time periods of interest for both sequential analysis and simple cohort characterization

Principal Diagnosis (PDX) - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

Query Period - period in which the modular program looks for exposures and outcomes of interest.

Treatment Episode Truncation Indicator - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

Washout Period (drug/exposure) - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

Washout Period (event/outcome) - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

*all terms may not be used in this report

Table 1.1a. Baseline Characteristics for Any Neuropsychiatric Events¹ in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic²	Number	
Number of episodes	39,920,185	
Number of unique patients	5,745,599	
Demographics	Mean	Standard Deviation
Mean Age (Years)	44.6	18.6
	Number	Percent
Age (Years)		
0-11	2,825,243	7.1%
12-17	3,126,660	7.8%
18-24	2,033,275	5.1%
25-34	4,075,391	10.2%
35-44	6,613,324	16.6%
45-54	8,280,247	20.7%
55-64	7,199,026	18.0%
65-74	3,443,237	8.6%
75+	2,323,782	5.8%
Gender		
Female	3,582,469	62.4%
Male	2,162,800	37.6%
Unknown	330	0.0%
Year		
2000	255,188	0.6%
2001	606,280	1.5%
2002	706,547	1.8%
2003	823,424	2.1%
2004	897,569	2.2%
2005	817,637	2.0%
2006	1,181,252	3.0%
2007	1,759,583	4.4%
2008	2,817,462	7.1%
2009	3,687,739	9.2%
2010	3,833,057	9.6%
2011	3,954,658	9.9%
2012	4,294,917	10.8%
2013	4,930,411	12.4%
2014	5,356,564	13.4%
2015	3,997,897	10.0%

Table 1.1a. Baseline Characteristics for Any Neuropsychiatric Events¹ in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ³	1.2	1.7
Care Setting:	Number	Percent
All Events ¹ in Inpatient Hospital Stays, Any (IP)	1,133,726	2.8%
All Events ¹ in Inpatient Hospital Stays, Principal Diagnoses (IPP)	114,274	0.3%
All Events ¹ in Emergency Department encounters (ED)	894,395	2.2%
All Events ¹ in Outpatient visits (AV)	33,796,801	84.7%

¹Psychotropic medications are not included in Any Events

²All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

³The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.1b. Baseline Characteristics for Any Neuropsychiatric Events¹ among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic²	Number	
Number of episodes	13,142,600	
Number of unique patients	1,565,717	
Demographics	Mean	Standard Deviation
Mean Age (Years)	42.6	19.1
	Number	Percent
Age (Years)		
0-11	1,291,998	9.8%
12-17	1,328,454	10.1%
18-24	625,988	4.8%
25-34	1,274,443	9.7%
35-44	2,041,761	15.5%
45-54	2,600,004	19.8%
55-64	2,182,369	16.6%
65-74	1,066,793	8.1%
75+	730,790	5.6%
Gender		
Female	986,837	63.0%
Male	578,811	37.0%
Unknown	69	0.0%
Year		
2000	248,351	1.9%
2001	589,712	4.5%
2002	685,313	5.2%
2003	801,886	6.1%
2004	871,224	6.6%
2005	783,801	6.0%
2006	714,855	5.4%
2007	722,132	5.5%
2008	759,013	5.8%
2009	824,442	6.3%
2010	915,429	7.0%
2011	962,189	7.3%
2012	1,024,357	7.8%
2013	1,093,191	8.3%
2014	1,184,594	9.0%
2015	962,111	7.3%

Table 1.1b. Baseline Characteristics for Any Neuropsychiatric Events¹ among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ³	1.3	1.7
Care Setting:	Number	Percent
All Events ¹ in Inpatient Hospital Stays, Any (IP)	464,236	3.5%
All Events ¹ in Inpatient Hospital Stays, Principal Diagnoses (IPP)	64,698	0.5%
All Events ¹ in Emergency Department encounters (ED)	450,204	3.4%
All Events ¹ in Outpatient visits (AV)	11,383,966	86.6%

¹Psychotropic medications are not included in Any Events

²All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

³The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.2a. Baseline Characteristics for Anxiousness in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	11,480,801	
Number of unique patients	2,452,498	
Demographics	Mean	Standard Deviation
Mean Age (Years)	44.4	18.1
	Number	Percent
Age (Years)		
0-11	602,255	5.2%
12-17	776,134	6.8%
18-24	709,019	6.2%
25-34	1,485,259	12.9%
35-44	2,100,599	18.3%
45-54	2,305,976	20.1%
55-64	1,895,755	16.5%
65-74	950,448	8.3%
75+	655,356	5.7%
Gender		
Female	1,691,546	69.0%
Male	760,807	31.0%
Unknown	145	0.0%
Year		
2000	56,715	0.5%
2001	134,814	1.2%
2002	156,678	1.4%
2003	181,131	1.6%
2004	178,525	1.6%
2005	156,235	1.4%
2006	249,086	2.2%
2007	394,295	3.4%
2008	663,218	5.8%
2009	936,154	8.2%
2010	1,034,208	9.0%
2011	1,131,389	9.9%
2012	1,323,210	11.5%
2013	1,619,195	14.1%
2014	1,846,893	16.1%
2015	1,419,055	12.4%

Table 1.2a. Baseline Characteristics for Anxiousness in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1	1.7
Care Setting:	Number	Percent
Anxiousness in Inpatient Hospital Stays, Any (IP)	348,468	3.0%
Anxiousness in Inpatient Hospital Stays, Principal Diagnoses (IPP)	4,458	0.0%
Anxiousness in Emergency Department encounters (ED)	390,089	3.4%
Anxiousness in Outpatient visits (AV)	9,788,937	85.3%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.2b. Baseline Characteristics for Anxiousness among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	3,273,668	
Number of unique patients	671,918	
Demographics	Mean	Standard Deviation
Mean Age (Years)	44.5	18.6
	Number	Percent
Age (Years)		
0-11	178,689	5.5%
12-17	228,127	7.0%
18-24	189,624	5.8%
25-34	419,548	12.8%
35-44	583,652	17.8%
45-54	661,686	20.2%
55-64	544,927	16.6%
65-74	275,096	8.4%
75+	192,319	5.9%
Gender		
Female	471,779	70.2%
Male	200,110	29.8%
Unknown	29	0.0%
Year		
2000	55,488	1.7%
2001	131,669	4.0%
2002	152,344	4.7%
2003	176,700	5.4%
2004	173,046	5.3%
2005	149,322	4.6%
2006	150,405	4.6%
2007	161,310	4.9%
2008	172,890	5.3%
2009	193,120	5.9%
2010	225,985	6.9%
2011	246,968	7.5%
2012	284,050	8.7%
2013	321,652	9.8%
2014	369,673	11.3%
2015	309,046	9.4%

Table 1.2b. Baseline Characteristics for Anxiousness among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.1	1.7
Care Setting:	Number	Percent
Anxiousness in Inpatient Hospital Stays, Any (IP)	125,316	3.8%
Anxiousness in Inpatient Hospital Stays, Principal Diagnoses (IPP)	2,149	0.1%
Anxiousness in Emergency Department encounters (ED)	181,312	5.5%
Anxiousness in Outpatient visits (AV)	2,753,655	84.1%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.3a. Baseline Characteristics for Drug Induced Mental Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	49,936	
Number of unique patients	30,043	
Demographics	Mean	Standard Deviation
Mean Age (Years)	52.3	19.8
	Number	Percent
Age (Years)		
0-11	449	0.9%
12-17	2,566	5.1%
18-24	4,999	10.0%
25-34	3,982	8.0%
35-44	5,821	11.7%
45-54	7,862	15.7%
55-64	8,748	17.5%
65-74	7,226	14.5%
75+	8,283	16.6%
Gender		
Female	17,371	57.8%
Male	12,666	42.2%
Unknown	6	0.0%
Year		
2000	337	0.7%
2001	994	2.0%
2002	1,040	2.1%
2003	1,227	2.5%
2004	1,309	2.6%
2005	1,291	2.6%
2006	1,327	2.7%
2007	2,021	4.0%
2008	3,399	6.8%
2009	4,416	8.8%
2010	4,356	8.7%
2011	4,670	9.4%
2012	5,017	10.0%
2013	6,128	12.3%
2014	6,444	12.9%
2015	5,960	11.9%

Table 1.3a. Baseline Characteristics for Drug Induced Mental Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	2.8	2.7
Care Setting:	Number	Percent
Drug Induced Mental Disorders in Inpatient Hospital Stays, Any (IP)	18,831	37.7%
Drug Induced Mental Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	2,399	4.8%
Drug Induced Mental Disorders in Emergency Department encounters (ED)	3,836	7.7%
Drug Induced Mental Disorders in Outpatient visits (AV)	23,141	46.3%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.3b. Baseline Characteristics for Drug Induced Mental Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic ¹	Number	
Number of episodes	19,457	
Number of unique patients	12,857	
Demographics	Mean	Standard Deviation
Mean Age (Years)	52.8	20.3
	Number	Percent
Age (Years)		
0-11	199	1.0%
12-17	1,096	5.6%
18-24	1,454	7.5%
25-34	1,695	8.7%
35-44	2,519	12.9%
45-54	3,085	15.9%
55-64	3,136	16.1%
65-74	2,806	14.4%
75+	3,467	17.8%
Gender		
Female	7,488	58.2%
Male	5,367	41.7%
Unknown	2	0.0%
Year		
2000	331	1.7%
2001	968	5.0%
2002	1,007	5.2%
2003	1,187	6.1%
2004	1,275	6.6%
2005	1,248	6.4%
2006	957	4.9%
2007	1,119	5.8%
2008	1,225	6.3%
2009	1,267	6.5%
2010	1,323	6.8%
2011	1,322	6.8%
2012	1,486	7.6%
2013	1,543	7.9%
2014	1,634	8.4%
2015	1,565	8.0%

Table 1.3b. Baseline Characteristics for Drug Induced Mental Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	3	2.8
Care Setting:	Number	Percent
Drug Induced Mental Disorders in Inpatient Hospital Stays, Any (IP)	9,016	46.3%
Drug Induced Mental Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	1,443	7.4%
Drug Induced Mental Disorders in Emergency Department encounters (ED)	1,924	9.9%
Drug Induced Mental Disorders in Outpatient visits (AV)	7,656	39.3%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.4a Baseline Characteristics for Conduct Disturbances in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	1,160,791	
Number of unique patients	190,579	
Demographics	Mean	Standard Deviation
Mean Age (Years)	17.4	14.3
	Number	Percent
Age (Years)		
0-11	532,095	45.8%
12-17	384,683	33.1%
18-24	49,412	4.3%
25-34	40,972	3.5%
35-44	53,006	4.6%
45-54	51,391	4.4%
55-64	30,481	2.6%
65-74	10,458	0.9%
75+	8,293	0.7%
Gender		
Female	75,249	39.5%
Male	115,321	60.5%
Unknown	9	0.0%
Year		
2000	10,650	0.9%
2001	25,619	2.2%
2002	27,603	2.4%
2003	32,638	2.8%
2004	33,264	2.9%
2005	23,995	2.1%
2006	42,079	3.6%
2007	51,989	4.5%
2008	78,628	6.8%
2009	104,187	9.0%
2010	113,354	9.8%
2011	113,075	9.7%
2012	122,837	10.6%
2013	135,542	11.7%
2014	138,952	12.0%
2015	106,379	9.2%

Table 1.4a Baseline Characteristics for Conduct Disturbances in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	0.7	1.1
Care Setting:	Number	Percent
Conduct Disturbances in Inpatient Hospital Stays, Any (IP)	15,829	1.4%
Conduct Disturbances in Inpatient Hospital Stays, Principal Diagnoses (IPP)	2,438	0.2%
Conduct Disturbances in Emergency Department encounters (ED)	13,312	1.1%
Conduct Disturbances in Outpatient visits (AV)	1,046,438	90.1%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.4b. Baseline Characteristics for Conduct Disturbances among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	609,337	
Number of unique patients	89,064	
Demographics	Mean	Standard Deviation
Mean Age (Years)	15.2	11.6
	Number	Percent
Age (Years)		
0-11	294,715	48.4%
12-17	223,061	36.6%
18-24	23,652	3.9%
25-34	17,868	2.9%
35-44	18,200	3.0%
45-54	17,034	2.8%
55-64	9,639	1.6%
65-74	3,090	0.5%
75+	2,078	0.3%
Gender		
Female	35,758	40.1%
Male	53,304	59.8%
Unknown	2	0.0%
Year		
2000	10,342	1.7%
2001	24,734	4.1%
2002	26,477	4.3%
2003	31,514	5.2%
2004	32,036	5.3%
2005	22,631	3.7%
2006	33,034	5.4%
2007	30,850	5.1%
2008	34,188	5.6%
2009	39,750	6.5%
2010	47,877	7.9%
2011	48,245	7.9%
2012	52,973	8.7%
2013	59,073	9.7%
2014	63,017	10.3%
2015	52,596	8.6%

Table 1.4b. Baseline Characteristics for Conduct Disturbances among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	0.7	1
Care Setting:	Number	Percent
Conduct Disturbances in Inpatient Hospital Stays, Any (IP)	7,913	1.3%
Conduct Disturbances in Inpatient Hospital Stays, Principal Diagnoses (IPP)	1,665	0.3%
Conduct Disturbances in Emergency Department encounters (ED)	8,363	1.4%
Conduct Disturbances in Outpatient visits (AV)	579,309	95.1%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.5a. Baseline Characteristics for Disorders of Attention in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	3,647,475	
Number of unique patients	650,037	
Demographics	Mean	Standard Deviation
Mean Age (Years)	21.6	14.9
	Number	Percent
Age (Years)		
0-11	1,310,452	35.9%
12-17	939,855	25.8%
18-24	335,431	9.2%
25-34	293,656	8.1%
35-44	300,505	8.2%
45-54	273,094	7.5%
55-64	159,787	4.4%
65-74	30,381	0.8%
75+	4,314	0.1%
Gender		
Female	283,121	43.6%
Male	366,898	56.4%
Unknown	18	0.0%
Year		
2000	14,065	0.4%
2001	34,969	1.0%
2002	41,823	1.1%
2003	53,377	1.5%
2004	62,489	1.7%
2005	52,766	1.4%
2006	97,145	2.7%
2007	136,238	3.7%
2008	223,186	6.1%
2009	314,196	8.6%
2010	359,887	9.9%
2011	390,165	10.7%
2012	434,889	11.9%
2013	504,774	13.8%
2014	533,204	14.6%
2015	394,302	10.8%

Table 1.5a. Baseline Characteristics for Disorders of Attention in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	0.6	0.9
Care Setting:	Number	Percent
Disorders of Attention in Inpatient Hospital Stays, Any (IP)	27,456	0.8%
Disorders of Attention in Inpatient Hospital Stays, Principal Diagnoses (IPP)	765	0.0%
Disorders of Attention in Emergency Department encounters (ED)	51,778	1.4%
Disorders of Attention in Outpatient visits (AV)	3,375,942	92.6%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.5b. Baseline Characteristics for Disorders of Attention among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	1,418,422	
Number of unique patients	170,375	
Demographics	Mean	Standard Deviation
Mean Age (Years)	17.2	12
	Number	Percent
Age (Years)		
0-11	671,758	47.4%
12-17	429,290	30.3%
18-24	79,326	5.6%
25-34	59,478	4.2%
35-44	64,204	4.5%
45-54	62,858	4.40%
55-64	40,617	2.9%
65-74	9,512	0.7%
75+	1,379	0.1%
Gender		
Female	67,294	39.5%
Male	103,080	60.5%
Unknown	1	0.0%
Year		
2000	13,571	1.0%
2001	33,687	2.4%
2002	40,203	2.8%
2003	51,618	3.6%
2004	60,449	4.3%
2005	50,161	3.5%
2006	68,993	4.9%
2007	72,716	5.1%
2008	81,282	5.7%
2009	95,906	6.8%
2010	118,957	8.4%
2011	130,144	9.2%
2012	144,535	10.2%
2013	158,819	11.2%
2014	166,459	11.7%
2015	130,922	9.2%

Table 1.5b. Baseline Characteristics for Disorders of Attention among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	0.6	0.8
Care Setting:	Number	Percent
Disorders of Attention in Inpatient Hospital Stays, Any (IP)	11,871	0.8%
Disorders of Attention in Inpatient Hospital Stays, Principal Diagnoses (IPP)	461	0.0%
Disorders of Attention in Emergency Department encounters (ED)	27,127	1.9%
Disorders of Attention in Outpatient visits (AV)	1,329,497	93.7%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.6a. Baseline Characteristics for Delirium and Psychosis in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	436,848	
Number of unique patients	186,862	
Demographics	Mean	Standard Deviation
Mean Age (Years)	57.3	20.9
	Number	Percent
Age (Years)		
0-11	11,352	2.6%
12-17	26,434	6.1%
18-24	23,407	5.4%
25-34	25,451	5.8%
35-44	38,197	8.7%
45-54	56,775	13.0%
55-64	66,285	15.2%
65-74	68,426	15.7%
75+	120,521	27.6%
Gender		
Female	110,565	59.2%
Male	76,279	40.8%
Unknown	18	0.0%
Year		
2000	5,197	1.2%
2001	11,686	2.7%
2002	12,053	2.8%
2003	12,386	2.8%
2004	13,379	3.1%
2005	11,451	2.6%
2006	12,083	2.8%
2007	15,575	3.6%
2008	26,813	6.1%
2009	33,913	7.8%
2010	36,894	8.4%
2011	41,201	9.4%
2012	45,863	10.5%
2013	53,857	12.3%
2014	58,595	13.4%
2015	45,902	10.5%

Table 1.6a. Baseline Characteristics for Delirium and Psychosis in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	3.5	3
Care Setting:	Number	Percent
Delirium and Psychosis in Inpatient Hospital Stays, Any (IP)	116,254	26.6%
Delirium and Psychosis in Inpatient Hospital Stays, Principal Diagnoses (IPP)	5,828	1.3%
Delirium and Psychosis in Emergency Department encounters (ED)	34,593	7.9%
Delirium and Psychosis in Outpatient visits (AV)	233,149	53.4%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.6b. Baseline Characteristics for Delirium and Psychosis among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	169,471	
Number of unique patients	59,771	
Demographics	Mean	Standard Deviation
Mean Age (Years)	49.8	20.9
	Number	Percent
Age (Years)		
0-11	7,319	4.3%
12-17	14,698	8.7%
18-24	11,611	6.9%
25-34	14,270	8.4%
35-44	21,465	12.7%
45-54	28,234	16.7%
55-64	24,023	14.2%
65-74	17,540	10.3%
75+	30,311	17.9%
Gender		
Female	35,035	58.6%
Male	24,733	41.4%
Unknown	3	0.0%
Year		
2000	5,103	3.0%
2001	11,462	6.8%
2002	11,815	7.0%
2003	12,111	7.1%
2004	13,060	7.7%
2005	10,933	6.5%
2006	8,619	5.1%
2007	7,902	4.7%
2008	9,017	5.3%
2009	9,090	5.4%
2010	10,518	6.2%
2011	11,431	6.7%
2012	11,289	6.7%
2013	12,517	7.4%
2014	13,771	8.1%
2015	10,833	6.4%

Table 1.6b. Baseline Characteristics for Delirium and Psychosis among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	2.8	2.6
Care Setting:	Number	Percent
Delirium and Psychosis in Inpatient Hospital Stays, Any (IP)	33,735	19.9%
Delirium and Psychosis in Inpatient Hospital Stays, Principal Diagnoses (IPP)	3,432	2.0%
Delirium and Psychosis in Emergency Department encounters (ED)	15,775	9.3%
Delirium and Psychosis in Outpatient visits (AV)	107,533	63.5%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.7a. Baseline Characteristics for Movement Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	454,920	
Number of unique patients	209,729	
Demographics	Mean	Standard Deviation
Mean Age (Years)	46.5	23.5
	Number	Percent
Age (Years)		
0-11	66,734	14.7%
12-17	40,298	8.9%
18-24	19,724	4.3%
25-34	24,492	5.4%
35-44	38,055	8.4%
45-54	59,741	13.1%
55-64	78,714	17.3%
65-74	66,150	14.5%
75+	61,012	13.4%
Gender		
Female	116,589	55.6%
Male	93,129	44.4%
Unknown	11	0.0%
Year		
2000	2,288	0.5%
2001	5,685	1.2%
2002	7,023	1.5%
2003	8,238	1.8%
2004	8,412	1.8%
2005	7,327	1.6%
2006	11,172	2.5%
2007	17,206	3.8%
2008	30,004	6.6%
2009	40,483	8.9%
2010	42,779	9.4%
2011	45,045	9.9%
2012	51,399	11.3%
2013	58,647	12.9%
2014	66,564	14.6%
2015	52,648	11.6%

Table 1.7a. Baseline Characteristics for Movement Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.4	2.2
Care Setting:	Number	Percent
Movement Disorders in Inpatient Hospital Stays, Any (IP)	25,456	5.6%
Movement Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	1,020	0.2%
Movement Disorders in Emergency Department encounters (ED)	23,158	5.1%
Movement Disorders in Outpatient visits (AV)	369,610	81.2%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.7b. Baseline Characteristics for Movement Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	140,119	
Number of unique patients	66,033	
Demographics	Mean	Standard Deviation
Mean Age (Years)	46.2	23.8
	Number	Percent
Age (Years)		
0-11	20,646	14.7%
12-17	13,607	9.7%
18-24	5,675	4.1%
25-34	7,728	5.5%
35-44	12,152	8.7%
45-54	17,831	12.7%
55-64	22,887	16.3%
65-74	20,014	14.3%
75+	19,579	14.0%
Gender		
Female	37,274	56.4%
Male	28,759	43.6%
Unknown	0	0.0%
Year		
2000	2,211	1.6%
2001	5,531	3.9%
2002	6,762	4.8%
2003	7,968	5.7%
2004	8,142	5.8%
2005	6,924	4.9%
2006	6,809	4.9%
2007	7,226	5.2%
2008	7,964	5.7%
2009	9,128	6.5%
2010	10,066	7.2%
2011	10,859	7.7%
2012	11,914	8.5%
2013	12,843	9.2%
2014	14,182	10.1%
2015	11,590	8.3%

Table 1.7b. Baseline Characteristics for Movement Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.5	2.2
Care Setting:	Number	Percent
Movement Disorders in Inpatient Hospital Stays, Any (IP)	8,333	5.9%
Movement Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	321	0.2%
Movement Disorders in Emergency Department encounters (ED)	9,977	7.1%
Movement Disorders in Outpatient visits (AV)	109,830	78.4%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.8a. Baseline Characteristics for Mood Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	22,726,602	
Number of unique patients	3,011,275	
Demographics	Mean	Standard Deviation
Mean Age (Years)	46.7	16.9
	Number	Percent
Age (Years)		
0-11	506,043	2.2%
12-17	1,492,271	6.6%
18-24	1,176,034	5.2%
25-34	2,474,788	10.9%
35-44	4,203,140	18.5%
45-54	5,313,546	23.4%
55-64	4,450,407	19.6%
65-74	1,880,641	8.3%
75+	1,229,732	5.4%
Gender		
Female	2,127,493	70.7%
Male	883,601	29.3%
Unknown	181	0.0%
Year		
2000	172,942	0.8%
2001	408,671	1.8%
2002	467,079	2.1%
2003	536,854	2.4%
2004	567,295	2.5%
2005	500,463	2.2%
2006	686,458	3.0%
2007	1,010,781	4.4%
2008	1,576,502	6.9%
2009	2,089,511	9.2%
2010	2,181,331	9.6%
2011	2,230,602	9.8%
2012	2,395,379	10.5%
2013	2,739,023	12.1%
2014	2,963,141	13.0%
2015	2,200,570	9.7%

Table 1.8a. Baseline Characteristics for Mood Disorders in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.4	1.7
Care Setting:	Number	Percent
Mood Disorders in Inpatient Hospital Stays, Any (IP)	670,761	3.0%
Mood Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	96,080	0.4%
Mood Disorders in Emergency Department encounters (ED)	447,822	2.0%
Mood Disorders in Outpatient visits (AV)	19,416,986	85.4%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.8b. Baseline Characteristics for Mood Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	7,878,728	
Number of unique patients	908,173	
Demographics	Mean	Standard Deviation
Mean Age (Years)	46	17.2
	Number	Percent
Age (Years)		
0-11	210,187	2.7%
12-17	628,348	8.0%
18-24	394,090	5.0%
25-34	852,748	10.8%
35-44	1,421,551	18.0%
45-54	1,828,486	23.2%
55-64	1,469,166	18.6%
65-74	654,017	8.3%
75+	420,135	5.3%
Gender		
Female	645,012	71.0%
Male	263,115	29.0%
Unknown	46	0.0%
Year		
2000	168,765	2.1%
2001	398,595	5.1%
2002	454,749	5.8%
2003	524,426	6.7%
2004	552,718	7.0%
2005	481,982	6.1%
2006	432,630	5.5%
2007	439,036	5.6%
2008	456,063	5.8%
2009	491,666	6.2%
2010	535,772	6.8%
2011	556,055	7.1%
2012	579,287	7.4%
2013	609,678	7.7%
2014	660,099	8.4%
2015	537,207	6.8%

Table 1.8b. Baseline Characteristics for Mood Disorders among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.5	1.7
Care Setting:	Number	Percent
Mood Disorders in Inpatient Hospital Stays, Any (IP)	305,327	3.9%
Mood Disorders in Inpatient Hospital Stays, Principal Diagnoses (IPP)	54,418	0.7%
Mood Disorders in Emergency Department encounters (ED)	241,778	3.1%
Mood Disorders in Outpatient visits (AV)	6,867,828	87.2%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.9a. Baseline Characteristics for Suicidal Thinking and Behavior in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	114,149	
Number of unique patients	70,431	
Demographics	Mean	Standard Deviation
Mean Age (Years)	38.8	17.5
	Number	Percent
Age (Years)		
0-11	2,064	1.8%
12-17	20,467	17.9%
18-24	14,209	12.4%
25-34	13,236	11.6%
35-44	18,259	16.0%
45-54	21,939	19.2%
55-64	14,556	12.8%
65-74	5,876	5.1%
75+	3,543	3.1%
Gender		
Female	46,015	65.3%
Male	24,410	34.7%
Unknown	6	0.0%
Year		
2000	461	0.4%
2001	1,155	1.0%
2002	1,358	1.2%
2003	1,520	1.3%
2004	1,622	1.4%
2005	1,971	1.7%
2006	2,682	2.3%
2007	3,846	3.4%
2008	6,773	5.9%
2009	8,645	7.6%
2010	9,705	8.5%
2011	10,892	9.5%
2012	12,988	11.4%
2013	15,755	13.8%
2014	19,447	17.0%
2015	15,329	13.4%

Table 1.9a. Baseline Characteristics for Suicidal Thinking and Behavior in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	2.2	1.9
Care Setting:	Number	Percent
Suicidal Thinking and Behavior in Inpatient Hospital Stays, Any (IP)	47,671	41.8%
Suicidal Thinking and Behavior in Inpatient Hospital Stays, Principal Diagnoses (IPP)	202	0.2%
Suicidal Thinking and Behavior in Emergency Department encounters (ED)	38,891	34.1%
Suicidal Thinking and Behavior in Outpatient visits (AV)	23,920	21.0%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.9b. Baseline Characteristics for Suicidal Thinking and Behavior among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic ¹	Number	
Number of episodes	45,442	
Number of unique patients	28,012	
Demographics	Mean	Standard Deviation
Mean Age (Years)	36.3	17.1
	Number	Percent
Age (Years)		
0-11	791	1.7%
12-17	8,934	19.7%
18-24	6,133	13.5%
25-34	6,401	14.1%
35-44	8,010	17.6%
45-54	8,211	18.1%
55-64	4,569	10.1%
65-74	1,392	3.1%
75+	1,001	2.2%
Gender		
Female	18,926	67.6%
Male	9,084	32.4%
Unknown	2	0.0%
Year		
2000	454	1.0%
2001	1,134	2.5%
2002	1,324	2.9%
2003	1,487	3.3%
2004	1,574	3.5%
2005	1,926	4.2%
2006	2,054	4.5%
2007	2,446	5.4%
2008	2,747	6.0%
2009	2,781	6.1%
2010	3,174	7.0%
2011	3,804	8.4%
2012	4,299	9.5%
2013	5,003	11.0%
2014	6,090	13.4%
2015	5,145	11.3%

Table 1.9b. Baseline Characteristics for Suicidal Thinking and Behavior among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	2.1	1.8
Care Setting:	Number	Percent
Suicidal Thinking and Behavior in Inpatient Hospital Stays, Any (IP)	20,283	44.6%
Suicidal Thinking and Behavior in Inpatient Hospital Stays, Principal Diagnoses (IPP)	57	0.1%
Suicidal Thinking and Behavior in Emergency Department encounters (ED)	20,600	45.3%
Suicidal Thinking and Behavior in Outpatient visits (AV)	4,769	10.5%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.10a. Baseline Characteristics for Sleep Disturbance in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	5,552,567	
Number of unique patients	2,005,673	
Demographics	Mean	Standard Deviation
Mean Age (Years)	53.7	16.2
	Number	Percent
Age (Years)		
0-11	172,869	3.1%
12-17	82,723	1.5%
18-24	103,344	1.9%
25-34	327,176	5.9%
35-44	762,513	13.7%
45-54	1,285,856	23.2%
55-64	1,429,867	25.8%
65-74	875,047	15.8%
75+	513,172	9.2%
Gender		
Female	1,132,488	56.5%
Male	873,060	43.5%
Unknown	125	0.0%
Year		
2000	24,140	0.4%
2001	61,398	1.1%
2002	80,899	1.5%
2003	103,534	1.9%
2004	127,881	2.3%
2005	141,289	2.5%
2006	196,240	3.5%
2007	300,831	5.4%
2008	498,694	9.0%
2009	569,029	10.2%
2010	531,970	9.6%
2011	528,389	9.5%
2012	548,782	9.9%
2013	623,939	11.2%
2014	689,646	12.4%
2015	525,906	9.5%

Table 1.10a. Baseline Characteristics for Sleep Disturbance in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.1	2
Care Setting:	Number	Percent
Sleep Disturbance in Inpatient Hospital Stays, Any (IP)	183,054	3.3%
Sleep Disturbance in Inpatient Hospital Stays, Principal Diagnoses (IPP)	1,066	0.0%
Sleep Disturbance in Emergency Department encounters (ED)	86,675	1.6%
Sleep Disturbance in Outpatient visits (AV)	4,262,469	76.8%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.10b. Baseline Characteristics for Sleep Disturbance among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	1,582,272	
Number of unique patients	537,619	
Demographics	Mean	Standard Deviation
Mean Age (Years)	52.9	17.4
	Number	Percent
Age (Years)		
0-11	67,490	4.3%
12-17	34,074	2.2%
18-24	33,793	2.1%
25-34	99,031	6.3%
35-44	212,142	13.4%
45-54	349,528	22.1%
55-64	382,163	24.2%
65-74	243,453	15.4%
75+	160,598	10.1%
Gender		
Female	311,412	57.9%
Male	226,191	42.1%
Unknown	16	0.0%
Year		
2000	23,137	1.5%
2001	58,904	3.7%
2002	77,253	4.9%
2003	99,835	6.3%
2004	122,458	7.7%
2005	133,995	8.5%
2006	92,596	5.9%
2007	87,763	5.5%
2008	89,020	5.6%
2009	91,205	5.8%
2010	99,812	6.3%
2011	107,862	6.8%
2012	115,823	7.3%
2013	128,981	8.2%
2014	139,227	8.8%
2015	114,401	7.2%

Table 1.10b. Baseline Characteristics for Sleep Disturbance among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1.3	2.1
Care Setting:	Number	Percent
Sleep Disturbance in Inpatient Hospital Stays, Any (IP)	82,042	5.2%
Sleep Disturbance in Inpatient Hospital Stays, Principal Diagnoses (IPP)	745	0.0%
Sleep Disturbance in Emergency Department encounters (ED)	50,196	3.2%
Sleep Disturbance in Outpatient visits (AV)	1,249,657	79.0%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.11a. Baseline Characteristics for Hallucinations in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	38,015	
Number of unique patients	25,627	
Demographics	Mean	Standard Deviation
Mean Age (Years)	60.3	21.3
	Number	Percent
Age (Years)		
0-11	1,302	3.4%
12-17	1,789	4.7%
18-24	1,399	3.7%
25-34	1,766	4.6%
35-44	2,940	7.7%
45-54	4,351	11.4%
55-64	5,596	14.7%
65-74	6,407	16.9%
75+	12,465	32.8%
Gender		
Female	16,118	62.9%
Male	9,507	37.1%
Unknown	2	0.0%
Year		
2000	153	0.4%
2001	463	1.2%
2002	664	1.7%
2003	709	1.9%
2004	731	1.9%
2005	906	2.4%
2006	875	2.3%
2007	1,306	3.4%
2008	2,131	5.6%
2009	3,011	7.9%
2010	3,266	8.6%
2011	3,613	9.5%
2012	4,150	10.9%
2013	5,020	13.2%
2014	6,091	16.0%
2015	4,926	13.0%

Table 1.11a. Baseline Characteristics for Hallucinations in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	3.1	3
Care Setting:	Number	Percent
Hallucinations in Inpatient Hospital Stays, Any (IP)	8,688	22.9%
Hallucinations in Inpatient Hospital Stays, Principal Diagnoses (IPP)	75	0.2%
Hallucinations in Emergency Department encounters (ED)	5,685	15.0%
Hallucinations in Outpatient visits (AV)	19,062	50.1%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.11b. Baseline Characteristics for Hallucinations among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	12,516	
Number of unique patients	8,714	
Demographics	Mean	Standard Deviation
Mean Age (Years)	56.8	22
	Number	Percent
Age (Years)		
0-11	578	4.6%
12-17	723	5.8%
18-24	576	4.6%
25-34	819	6.5%
35-44	1,203	9.6%
45-54	1,519	12.1%
55-64	1,704	13.6%
65-74	1,634	13.1%
75+	3,760	30.0%
Gender		
Female	5,498	63.1%
Male	3,216	36.9%
Unknown	0	0.0%
Year		
2000	146	1.2%
2001	450	3.6%
2002	641	5.1%
2003	681	5.4%
2004	712	5.7%
2005	869	6.9%
2006	589	4.7%
2007	637	5.1%
2008	609	4.9%
2009	771	6.2%
2010	896	7.2%
2011	895	7.2%
2012	970	7.8%
2013	1,220	9.7%
2014	1,306	10.4%
2015	1,124	9.0%

Table 1.11b. Baseline Characteristics for Hallucinations among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	2.9	2.9
Care Setting:	Number	Percent
Hallucinations in Inpatient Hospital Stays, Any (IP)	2,947	23.5%
Hallucinations in Inpatient Hospital Stays, Principal Diagnoses (IPP)	29	0.2%
Hallucinations in Emergency Department encounters (ED)	2,958	23.6%
Hallucinations in Outpatient visits (AV)	5,004	40.0%

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.12a. Baseline Characteristics for Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic¹	Number	
Number of episodes	81,807,463	
Number of unique patients	6,962,828	
Demographics	Mean	Standard Deviation
Mean Age (Years)	50.6	17
	Number	Percent
Age (Years)		
0-11	2,438,693	3.0%
12-17	2,948,989	3.6%
18-24	2,868,826	3.5%
25-34	6,268,862	7.7%
35-44	12,555,522	15.3%
45-54	19,494,484	23.8%
55-64	19,783,851	24.2%
65-74	9,330,116	11.4%
75+	6,118,120	7.5%
Gender		
Female	4,588,373	65.9%
Male	2,374,064	34.1%
Unknown	391	0.0%
Year		
2000	600,299	0.7%
2001	1,419,507	1.7%
2002	1,705,004	2.1%
2003	1,980,013	2.4%
2004	2,318,958	2.8%
2005	2,362,497	2.9%
2006	2,352,641	2.9%
2007	3,682,858	4.5%
2008	6,071,028	7.4%
2009	7,851,238	9.6%
2010	7,982,860	9.8%
2011	8,110,799	9.9%
2012	8,468,073	10.4%
2013	9,447,935	11.5%
2014	10,075,818	12.3%
2015	7,377,935	9.0%
Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	0.9	1.7

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 1.12b. Baseline Characteristics for Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015

Characteristic ¹	Number	
Number of episodes	24,541,460	
Number of unique patients	1,741,921	
Demographics	Mean	Standard Deviation
Mean Age (Years)	49.5	17.8
	Number	Percent
Age (Years)		
0-11	1,033,864	4.2%
12-17	1,080,644	4.4%
18-24	827,609	3.4%
25-34	1,956,367	8.0%
35-44	3,883,998	15.8%
45-54	5,692,920	23.2%
55-64	5,439,160	22.2%
65-74	2,779,113	11.3%
75+	1,847,785	7.5%
Gender		
Female	1,153,056	66.2%
Male	588,781	33.8%
Unknown	84	0.0%
Year		
2000	587,546	2.4%
2001	1,388,632	5.7%
2002	1,658,143	6.8%
2003	1,930,330	7.9%
2004	2,259,918	9.2%
2005	2,296,860	9.4%
2006	1,265,423	5.2%
2007	1,294,642	5.3%
2008	1,340,564	5.5%
2009	1,376,160	5.6%
2010	1,429,483	5.8%
2011	1,476,676	6.0%
2012	1,524,128	6.2%
2013	1,600,315	6.5%
2014	1,726,394	7.0%
2015	1,386,246	5.6%
Recorded History during Baseline Period:	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	1	1.7

¹All metrics are based on total number of episodes per group, except for sex which is based on total number of unique patients

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (index date).

Table 2a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, Overall

Events	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events ²	5,745,599	22,596,076	2,542.74	39,920,185	NA	NA	NA	29,773,255.4
Anxiousness	2,452,498	22,596,076	1,085.36	11,480,801	NA	NA	NA	29,773,255.4
Drug Induced Mental Disorders	30,043	22,596,076	13.30	49,936	NA	NA	NA	29,773,255.4
Conduct Disturbance	190,579	22,596,076	84.34	1,160,791	NA	NA	NA	29,773,255.4
Disorders of Attention	650,037	22,596,076	287.68	3,647,475	NA	NA	NA	29,773,255.4
Delirium and Psychosis	186,862	22,596,076	82.70	436,848	NA	NA	NA	29,773,255.4
Movement Disorders	209,729	22,596,076	92.82	454,920	NA	NA	NA	29,773,255.4
Mood Disorders	3,011,275	22,596,076	1,332.65	22,726,602	NA	NA	NA	29,773,255.4
Suicidal Thinking and Behavior	70,431	22,596,076	31.17	114,149	NA	NA	NA	29,773,255.4
Sleep Disturbance	2,005,673	22,596,076	887.62	5,552,567	NA	NA	NA	29,773,255.4
Hallucinations	25,627	22,596,076	11.34	38,015	NA	NA	NA	29,773,255.4
Psychotropic Medications	6,962,828	22,596,076	3,081.43	87,512,998	88,695,361	3,169,412,070	5,152,571,399	29,773,255.4

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 2b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, Overall

Event	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events ²	1,565,717	5,385,732	2,907.16	13,142,600	NA	NA	NA	10,216,249.8
Anxiousness	671,918	5,385,732	1,247.59	3,273,668	NA	NA	NA	10,216,249.8
Drug Induced Mental Disorders	12,857	5,385,732	23.87	19,457	NA	NA	NA	10,216,249.8
Conduct Disturbance	89,064	5,385,732	165.37	609,337	NA	NA	NA	10,216,249.8
Disorders of Attention	170,375	5,385,732	316.35	1,418,422	NA	NA	NA	10,216,249.8
Delirium and Psychosis	59,771	5,385,732	110.98	169,471	NA	NA	NA	10,216,249.8
Movement Disorders	66,033	5,385,732	122.61	140,119	NA	NA	NA	10,216,249.8
Mood Disorders	908,173	5,385,732	1,686.26	7,878,728	NA	NA	NA	10,216,249.8
Suicidal Thinking and Behavior	28,012	5,385,732	52.01	45,442	NA	NA	NA	10,216,249.8
Sleep Disturbance	537,619	5,385,732	998.23	1,582,272	NA	NA	NA	10,216,249.8
Hallucinations	8,714	5,385,732	16.18	12,516	NA	NA	NA	10,216,249.8
Psychotropic Medications	1,741,921	5,385,732	3,234.33	26,525,775	26,979,493	1,074,072,551	2,091,608,154	10,216,249.8

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events²								
0-11	410,642	3,447,910	1,190.99	2,825,243	NA	NA	NA	3,930,176.3
12-17	394,413	2,185,535	1,804.65	3,126,660	NA	NA	NA	2,037,119.4
18-24	364,711	1,969,393	1,851.90	2,033,275	NA	NA	NA	1,494,506.6
25-34	690,545	3,286,025	2,101.46	4,075,391	NA	NA	NA	2,711,377.9
35-44	1,037,765	4,178,521	2,483.57	6,613,324	NA	NA	NA	4,244,888.1
45-54	1,274,633	4,609,174	2,765.43	8,280,247	NA	NA	NA	5,400,223.0
55-64	1,152,160	3,936,753	2,926.68	7,199,026	NA	NA	NA	5,126,987.6
65-74	643,643	2,109,225	3,051.56	3,443,237	NA	NA	NA	2,930,984.7
75+	424,890	1,191,115	3,567.16	2,323,782	NA	NA	NA	1,896,991.8
Anxiousness								
0-11	97,350	3,447,910	282.34	602,255	NA	NA	NA	3,930,176.3
12-17	129,053	2,185,535	590.49	776,134	NA	NA	NA	2,037,119.4
18-24	167,883	1,969,393	852.46	709,019	NA	NA	NA	1,494,506.6
25-34	343,762	3,286,025	1,046.13	1,485,259	NA	NA	NA	2,711,377.9
35-44	481,131	4,178,521	1,151.44	2,100,599	NA	NA	NA	4,244,888.1
45-54	542,341	4,609,174	1,176.66	2,305,976	NA	NA	NA	5,400,223.0
55-64	462,675	3,936,753	1,175.27	1,895,755	NA	NA	NA	5,126,987.6
65-74	259,852	2,109,225	1,231.98	950,448	NA	NA	NA	2,930,984.7
75+	167,861	1,191,115	1,409.28	655,356	NA	NA	NA	1,896,991.8

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Drug Induced Mental Disorders								
0-11	353	3,447,910	1.02	449	NA	NA	NA	3,930,176.3
12-17	1,164	2,185,535	5.33	2,566	NA	NA	NA	2,037,119.4
18-24	2,053	1,969,393	10.42	4,999	NA	NA	NA	1,494,506.6
25-34	2,024	3,286,025	6.16	3,982	NA	NA	NA	2,711,377.9
35-44	3,064	4,178,521	7.33	5,821	NA	NA	NA	4,244,888.1
45-54	4,325	4,609,174	9.38	7,862	NA	NA	NA	5,400,223.0
55-64	5,479	3,936,753	13.92	8,748	NA	NA	NA	5,126,987.6
65-74	5,415	2,109,225	25.67	7,226	NA	NA	NA	2,930,984.7
75+	6,427	1,191,115	53.96	8,283	NA	NA	NA	1,896,991.8
Conduct Disturbance								
0-11	83,204	3,447,910	241.32	532,095	NA	NA	NA	3,930,176.3
12-17	58,785	2,185,535	268.97	384,683	NA	NA	NA	2,037,119.4
18-24	10,371	1,969,393	52.66	49,412	NA	NA	NA	1,494,506.6
25-34	8,720	3,286,025	26.54	40,972	NA	NA	NA	2,711,377.9
35-44	11,703	4,178,521	28.01	53,006	NA	NA	NA	4,244,888.1
45-54	11,741	4,609,174	25.47	51,391	NA	NA	NA	5,400,223.0
55-64	7,820	3,936,753	19.86	30,481	NA	NA	NA	5,126,987.6
65-74	4,232	2,109,225	20.06	10,458	NA	NA	NA	2,930,984.7
75+	4,543	1,191,115	38.14	8,293	NA	NA	NA	1,896,991.8

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Disorders of Attention								
0-11	194,915	3,447,910	565.31	1,310,452	NA	NA	NA	3,930,176.3
12-17	167,205	2,185,535	765.05	939,855	NA	NA	NA	2,037,119.4
18-24	95,858	1,969,393	486.74	335,431	NA	NA	NA	1,494,506.6
25-34	81,299	3,286,025	247.41	293,656	NA	NA	NA	2,711,377.9
35-44	74,494	4,178,521	178.28	300,505	NA	NA	NA	4,244,888.1
45-54	64,113	4,609,174	139.10	273,094	NA	NA	NA	5,400,223.0
55-64	35,479	3,936,753	90.12	159,787	NA	NA	NA	5,126,987.6
65-74	7,475	2,109,225	35.44	30,381	NA	NA	NA	2,930,984.7
75+	1,487	1,191,115	12.48	4,314	NA	NA	NA	1,896,991.8
Delirium and Psychosis								
0-11	3,368	3,447,910	9.77	11,352	NA	NA	NA	3,930,176.3
12-17	7,643	2,185,535	34.97	26,434	NA	NA	NA	2,037,119.4
18-24	7,216	1,969,393	36.64	23,407	NA	NA	NA	1,494,506.6
25-34	7,964	3,286,025	24.24	25,451	NA	NA	NA	2,711,377.9
35-44	12,938	4,178,521	30.96	38,197	NA	NA	NA	4,244,888.1
45-54	21,953	4,609,174	47.63	56,775	NA	NA	NA	5,400,223.0
55-64	31,102	3,936,753	79.00	66,285	NA	NA	NA	5,126,987.6
65-74	35,448	2,109,225	168.06	68,426	NA	NA	NA	2,930,984.7
75+	63,320	1,191,115	531.60	120,521	NA	NA	NA	1,896,991.8

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Movement Disorders								
0-11	27,766	3,447,910	80.53	66,734	NA	NA	NA	3,930,176.3
12-17	13,705	2,185,535	62.71	40,298	NA	NA	NA	2,037,119.4
18-24	8,299	1,969,393	42.14	19,724	NA	NA	NA	1,494,506.6
25-34	12,122	3,286,025	36.89	24,492	NA	NA	NA	2,711,377.9
35-44	20,116	4,178,521	48.14	38,055	NA	NA	NA	4,244,888.1
45-54	30,288	4,609,174	65.71	59,741	NA	NA	NA	5,400,223.0
55-64	39,724	3,936,753	100.91	78,714	NA	NA	NA	5,126,987.6
65-74	34,080	2,109,225	161.58	66,150	NA	NA	NA	2,930,984.7
75+	30,511	1,191,115	256.15	61,012	NA	NA	NA	1,896,991.8
Mood Disorders								
0-11	72,308	3,447,910	209.72	506,043	NA	NA	NA	3,930,176.3
12-17	180,757	2,185,535	827.06	1,492,271	NA	NA	NA	2,037,119.4
18-24	192,795	1,969,393	978.96	1,176,034	NA	NA	NA	1,494,506.6
25-34	384,977	3,286,025	1,171.56	2,474,788	NA	NA	NA	2,711,377.9
35-44	593,621	4,178,521	1,420.65	4,203,140	NA	NA	NA	4,244,888.1
45-54	720,962	4,609,174	1,564.19	5,313,546	NA	NA	NA	5,400,223.0
55-64	636,371	3,936,753	1,616.49	4,450,407	NA	NA	NA	5,126,987.6
65-74	334,451	2,109,225	1,585.66	1,880,641	NA	NA	NA	2,930,984.7
75+	221,361	1,191,115	1,858.44	1,229,732	NA	NA	NA	1,896,991.8

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Suicidal Thinking and Behavior								
0-11	1,556	3,447,910	4.51	2,064	NA	NA	NA	3,930,176.3
12-17	13,304	2,185,535	60.87	20,467	NA	NA	NA	2,037,119.4
18-24	9,108	1,969,393	46.25	14,209	NA	NA	NA	1,494,506.6
25-34	8,555	3,286,025	26.03	13,236	NA	NA	NA	2,711,377.9
35-44	11,660	4,178,521	27.90	18,259	NA	NA	NA	4,244,888.1
45-54	13,239	4,609,174	28.72	21,939	NA	NA	NA	5,400,223.0
55-64	8,613	3,936,753	21.88	14,556	NA	NA	NA	5,126,987.6
65-74	3,586	2,109,225	17.00	5,876	NA	NA	NA	2,930,984.7
75+	2,292	1,191,115	19.24	3,543	NA	NA	NA	1,896,991.8
Sleep Disturbance								
0-11	93,069	3,447,910	269.93	172,869	NA	NA	NA	3,930,176.3
12-17	43,592	2,185,535	199.46	82,723	NA	NA	NA	2,037,119.4
18-24	56,336	1,969,393	286.06	103,344	NA	NA	NA	1,494,506.6
25-34	161,527	3,286,025	491.56	327,176	NA	NA	NA	2,711,377.9
35-44	330,887	4,178,521	791.88	762,513	NA	NA	NA	4,244,888.1
45-54	498,185	4,609,174	1,080.86	1,285,856	NA	NA	NA	5,400,223.0
55-64	498,788	3,936,753	1,267.00	1,429,867	NA	NA	NA	5,126,987.6
65-74	288,096	2,109,225	1,365.89	875,047	NA	NA	NA	2,930,984.7
75+	168,867	1,191,115	1,417.72	513,172	NA	NA	NA	1,896,991.8

Table 3a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Hallucinations								
0-11	1,020	3,447,910	2.96	1,302	NA	NA	NA	3,930,176.3
12-17	1,338	2,185,535	6.12	1,789	NA	NA	NA	2,037,119.4
18-24	1,051	1,969,393	5.34	1,399	NA	NA	NA	1,494,506.6
25-34	1,339	3,286,025	4.07	1,766	NA	NA	NA	2,711,377.9
35-44	2,254	4,178,521	5.39	2,940	NA	NA	NA	4,244,888.1
45-54	3,231	4,609,174	7.01	4,351	NA	NA	NA	5,400,223.0
55-64	3,887	3,936,753	9.87	5,596	NA	NA	NA	5,126,987.6
65-74	4,242	2,109,225	20.11	6,407	NA	NA	NA	2,930,984.7
75+	7,493	1,191,115	62.91	12,465	NA	NA	NA	1,896,991.8
Psychotropic Medications								
0-11	248,828	3,447,910	721.68	2,546,194	2,650,219	83,359,607	154,662,762	3,930,176.3
12-17	342,397	2,185,535	1,566.65	3,153,544	3,290,368	106,985,477	178,799,890	2,037,119.4
18-24	420,459	1,969,393	2,134.97	3,116,390	3,217,972	103,341,764	177,458,486	1,494,506.6
25-34	840,698	3,286,025	2,558.40	6,807,798	6,927,064	219,735,553	374,472,639	2,711,377.9
35-44	1,331,504	4,178,521	3,186.54	13,607,959	13,788,687	457,253,230	765,804,626	4,244,888.1
45-54	1,743,370	4,609,174	3,782.39	20,999,517	21,234,856	743,231,781	1,234,953,611	5,400,223.0
55-64	1,636,732	3,936,753	4,157.57	21,103,294	21,298,723	793,496,867	1,283,396,958	5,126,987.6
65-74	868,725	2,109,225	4,118.69	9,799,022	9,865,122	407,809,869	626,643,518	2,930,984.7
75+	543,384	1,191,115	4,561.98	6,379,280	6,422,350	254,197,922	356,378,909	1,896,991.8

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events²								
0-11	148,328	1,013,127	1,464.06	1,291,998	NA	NA	NA	1,502,627.5
12-17	145,741	694,857	2,097.42	1,328,454	NA	NA	NA	783,615.1
18-24	115,424	586,915	1,966.62	625,988	NA	NA	NA	502,985.9
25-34	210,772	903,061	2,333.97	1,274,443	NA	NA	NA	927,970.9
35-44	293,803	1,061,229	2,768.52	2,041,761	NA	NA	NA	1,398,175.1
45-54	346,048	1,100,236	3,145.22	2,600,004	NA	NA	NA	1,724,438.7
55-64	307,950	942,581	3,267.09	2,182,369	NA	NA	NA	1,651,928.8
65-74	177,216	548,421	3,231.39	1,066,793	NA	NA	NA	1,025,439.0
75+	126,044	332,723	3,788.26	730,790	NA	NA	NA	699,068.8
Anxiousness								
0-11	30,737	1,013,127	303.39	178,689	NA	NA	NA	1,502,627.5
12-17	42,879	694,857	617.09	228,127	NA	NA	NA	783,615.1
18-24	53,515	586,915	911.80	189,624	NA	NA	NA	502,985.9
25-34	106,097	903,061	1,174.86	419,548	NA	NA	NA	927,970.9
35-44	138,866	1,061,229	1,308.54	583,652	NA	NA	NA	1,398,175.1
45-54	150,396	1,100,236	1,366.94	661,686	NA	NA	NA	1,724,438.7
55-64	126,341	942,581	1,340.37	544,927	NA	NA	NA	1,651,928.8
65-74	69,049	548,421	1,259.05	275,096	NA	NA	NA	1,025,439.0
75+	46,290	332,723	1,391.25	192,319	NA	NA	NA	699,068.8

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Drug Induced Mental Disorders								
0-11	146	1,013,127	1.44	199	NA	NA	NA	1,502,627.5
12-17	481	694,857	6.92	1,096	NA	NA	NA	783,615.1
18-24	789	586,915	13.44	1,454	NA	NA	NA	502,985.9
25-34	953	903,061	10.55	1,695	NA	NA	NA	927,970.9
35-44	1,397	1,061,229	13.16	2,519	NA	NA	NA	1,398,175.1
45-54	1,814	1,100,236	16.49	3,085	NA	NA	NA	1,724,438.7
55-64	2,223	942,581	23.58	3,136	NA	NA	NA	1,651,928.8
65-74	2,246	548,421	40.95	2,806	NA	NA	NA	1,025,439.0
75+	2,954	332,723	88.78	3,467	NA	NA	NA	699,068.8
Conduct Disturbance								
0-11	39,777	1,013,127	392.62	294,715	NA	NA	NA	1,502,627.5
12-17	32,035	694,857	461.03	223,061	NA	NA	NA	783,615.1
18-24	4,746	586,915	80.86	23,652	NA	NA	NA	502,985.9
25-34	3,949	903,061	43.73	17,868	NA	NA	NA	927,970.9
35-44	4,855	1,061,229	45.75	18,200	NA	NA	NA	1,398,175.1
45-54	4,684	1,100,236	42.57	17,034	NA	NA	NA	1,724,438.7
55-64	2,999	942,581	31.82	9,639	NA	NA	NA	1,651,928.8
65-74	1,474	548,421	26.88	3,090	NA	NA	NA	1,025,439.0
75+	1,292	332,723	38.83	2,078	NA	NA	NA	699,068.8

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Disorders of Attention								
0-11	72,130	1,013,127	711.95	671,758	NA	NA	NA	1,502,627.5
12-17	56,651	694,857	815.29	429,290	NA	NA	NA	783,615.1
18-24	20,035	586,915	341.36	79,326	NA	NA	NA	502,985.9
25-34	15,063	903,061	166.80	59,478	NA	NA	NA	927,970.9
35-44	14,163	1,061,229	133.46	64,204	NA	NA	NA	1,398,175.1
45-54	12,839	1,100,236	116.69	62,858	NA	NA	NA	1,724,438.7
55-64	7,899	942,581	83.80	40,617	NA	NA	NA	1,651,928.8
65-74	2,011	548,421	36.67	9,512	NA	NA	NA	1,025,439.0
75+	323	332,723	9.71	1,379	NA	NA	NA	699,068.8
Delirium and Psychosis								
0-11	1,702	1,013,127	16.80	7,319	NA	NA	NA	1,502,627.5
12-17	3,257	694,857	46.87	14,698	NA	NA	NA	783,615.1
18-24	2,920	586,915	49.75	11,611	NA	NA	NA	502,985.9
25-34	3,450	903,061	38.20	14,270	NA	NA	NA	927,970.9
35-44	5,445	1,061,229	51.31	21,465	NA	NA	NA	1,398,175.1
45-54	7,860	1,100,236	71.44	28,234	NA	NA	NA	1,724,438.7
55-64	9,551	942,581	101.33	24,023	NA	NA	NA	1,651,928.8
65-74	9,653	548,421	176.01	17,540	NA	NA	NA	1,025,439.0
75+	18,217	332,723	547.51	30,311	NA	NA	NA	699,068.8

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Movement Disorders								
0-11	8,913	1,013,127	87.98	20,646	NA	NA	NA	1,502,627.5
12-17	4,529	694,857	65.18	13,607	NA	NA	NA	783,615.1
18-24	2,792	586,915	47.57	5,675	NA	NA	NA	502,985.9
25-34	4,224	903,061	46.77	7,728	NA	NA	NA	927,970.9
35-44	6,604	1,061,229	62.23	12,152	NA	NA	NA	1,398,175.1
45-54	9,564	1,100,236	86.93	17,831	NA	NA	NA	1,724,438.7
55-64	12,172	942,581	129.13	22,887	NA	NA	NA	1,651,928.8
65-74	10,489	548,421	191.26	20,014	NA	NA	NA	1,025,439.0
75+	10,017	332,723	301.06	19,579	NA	NA	NA	699,068.8
Mood Disorders								
0-11	28,234	1,013,127	278.68	210,187	NA	NA	NA	1,502,627.5
12-17	73,811	694,857	1,062.25	628,348	NA	NA	NA	783,615.1
18-24	70,325	586,915	1,198.21	394,090	NA	NA	NA	502,985.9
25-34	134,654	903,061	1,491.08	852,748	NA	NA	NA	927,970.9
35-44	190,273	1,061,229	1,792.95	1,421,551	NA	NA	NA	1,398,175.1
45-54	221,715	1,100,236	2,015.16	1,828,486	NA	NA	NA	1,724,438.7
55-64	187,225	942,581	1,986.30	1,469,166	NA	NA	NA	1,651,928.8
65-74	99,303	548,421	1,810.71	654,017	NA	NA	NA	1,025,439.0
75+	69,789	332,723	2,097.51	420,135	NA	NA	NA	699,068.8

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Suicidal Thinking and Behavior								
0-11	639	1,013,127	6.31	791	NA	NA	NA	1,502,627.5
12-17	5,996	694,857	86.29	8,934	NA	NA	NA	783,615.1
18-24	3,850	586,915	65.60	6,133	NA	NA	NA	502,985.9
25-34	4,114	903,061	45.56	6,401	NA	NA	NA	927,970.9
35-44	5,121	1,061,229	48.26	8,010	NA	NA	NA	1,398,175.1
45-54	4,904	1,100,236	44.57	8,211	NA	NA	NA	1,724,438.7
55-64	2,707	942,581	28.72	4,569	NA	NA	NA	1,651,928.8
65-74	938	548,421	17.10	1,392	NA	NA	NA	1,025,439.0
75+	682	332,723	20.50	1,001	NA	NA	NA	699,068.8
Sleep Disturbance								
0-11	34,822	1,013,127	343.71	67,490	NA	NA	NA	1,502,627.5
12-17	17,990	694,857	258.90	34,074	NA	NA	NA	783,615.1
18-24	18,766	586,915	319.74	33,793	NA	NA	NA	502,985.9
25-34	48,258	903,061	534.38	99,031	NA	NA	NA	927,970.9
35-44	88,680	1,061,229	835.63	212,142	NA	NA	NA	1,398,175.1
45-54	128,784	1,100,236	1,170.51	349,528	NA	NA	NA	1,724,438.7
55-64	128,848	942,581	1,366.97	382,163	NA	NA	NA	1,651,928.8
65-74	78,246	548,421	1,426.75	243,453	NA	NA	NA	1,025,439.0
75+	52,230	332,723	1,569.77	160,598	NA	NA	NA	699,068.8

Table 3b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Age Group

Age Group (Years)	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Hallucinations								
0-11	462	1,013,127	4.56	578	NA	NA	NA	1,502,627.5
12-17	558	694,857	8.03	723	NA	NA	NA	783,615.1
18-24	411	586,915	7.00	576	NA	NA	NA	502,985.9
25-34	619	903,061	6.85	819	NA	NA	NA	927,970.9
35-44	916	1,061,229	8.63	1,203	NA	NA	NA	1,398,175.1
45-54	1,134	1,100,236	10.31	1,519	NA	NA	NA	1,724,438.7
55-64	1,208	942,581	12.82	1,704	NA	NA	NA	1,651,928.8
65-74	1,141	548,421	20.81	1,634	NA	NA	NA	1,025,439.0
75+	2,387	332,723	71.74	3,760	NA	NA	NA	699,068.8
Psychotropic Medications								
0-11	87,441	1,013,127	863.08	1,094,391	1,149,378	37,320,471	77,596,243	1,502,627.5
12-17	111,943	694,857	1,611.02	1,175,532	1,235,499	42,019,862	80,941,397	783,615.1
18-24	122,544	586,915	2,087.93	910,605	939,005	32,619,479	68,725,741	502,985.9
25-34	241,938	903,061	2,679.09	2,164,033	2,208,138	77,286,470	163,087,587	927,970.9
35-44	357,017	1,061,229	3,364.18	4,289,082	4,363,682	159,361,836	333,773,774	1,398,175.1
45-54	439,167	1,100,236	3,991.57	6,205,621	6,294,158	247,806,569	504,204,495	1,724,438.7
55-64	404,034	942,581	4,286.46	5,824,596	5,888,953	251,010,974	482,142,733	1,651,928.8
65-74	234,872	548,421	4,282.70	2,923,725	2,947,376	137,541,814	243,477,346	1,025,439.0
75+	162,285	332,723	4,877.48	1,938,190	1,953,304	89,105,076	137,658,838	699,068.8

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 4a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Sex

Sex	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events²								
Female	3,582,469	12,686,975	2,823.74	25,897,507	NA	NA	NA	16,820,902.7
Male	2,162,800	9,907,936	2,182.90	14,020,387	NA	NA	NA	12,950,670.1
Unknown	330	1,165	2,832.62	2,291	NA	NA	NA	1,682.6
Anxiousness								
Female	1,691,546	12,686,975	1,333.29	7,858,617	NA	NA	NA	16,820,902.7
Male	760,807	9,907,936	767.88	3,621,367	NA	NA	NA	12,950,670.1
Unknown	145	1,165	1,244.64	817	NA	NA	NA	1,682.6
Drug Induced Mental Disorders								
Female	17,371	12,686,975	13.69	27,376	NA	NA	NA	16,820,902.7
Male	12,666	9,907,936	12.78	22,551	NA	NA	NA	12,950,670.1
Unknown	6	1,165	51.50	9	NA	NA	NA	1,682.6
Conduct Disturbance								
Female	75,249	12,686,975	59.31	427,540	NA	NA	NA	16,820,902.7
Male	115,321	9,907,936	116.39	733,194	NA	NA	NA	12,950,670.1
Unknown	9	1,165	77.25	57	NA	NA	NA	1,682.6
Disorders of Attention								
Female	283,121	12,686,975	223.16	1,424,048	NA	NA	NA	16,820,902.7
Male	366,898	9,907,936	370.31	2,223,315	NA	NA	NA	12,950,670.1
Unknown	18	1,165	154.51	112	NA	NA	NA	1,682.6
Delirium and Psychosis								
Female	110,565	12,686,975	87.15	256,389	NA	NA	NA	16,820,902.7
Male	76,279	9,907,936	76.99	180,385	NA	NA	NA	12,950,670.1
Unknown	18	1,165	154.51	74	NA	NA	NA	1,682.6
Movement Disorders								
Female	116,589	12,686,975	91.90	239,789	NA	NA	NA	16,820,902.7
Male	93,129	9,907,936	93.99	215,081	NA	NA	NA	12,950,670.1
Unknown	11	1,165	94.42	50	NA	NA	NA	1,682.6

Table 4a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Sex

Sex	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Mood Disorders								
Female	2,127,493	12,686,975	1,676.91	16,349,550	NA	NA	NA	16,820,902.7
Male	883,601	9,907,936	891.81	6,375,659	NA	NA	NA	12,950,670.1
Unknown	181	1,165	1,553.65	1,393	NA	NA	NA	1,682.6
Suicidal Thinking and Behavior								
Female	46,015	12,686,975	36.27	75,835	NA	NA	NA	16,820,902.7
Male	24,410	9,907,936	24.64	38,303	NA	NA	NA	12,950,670.1
Unknown	6	1,165	51.50	11	NA	NA	NA	1,682.6
Sleep Disturbance								
Female	1,132,488	12,686,975	892.64	2,994,109	NA	NA	NA	16,820,902.7
Male	873,060	9,907,936	881.17	2,558,159	NA	NA	NA	12,950,670.1
Unknown	125	1,165	1,072.96	299	NA	NA	NA	1,682.6
Hallucinations								
Female	16,118	12,686,975	12.70	24,431	NA	NA	NA	16,820,902.7
Male	9,507	9,907,936	9.60	13,582	NA	NA	NA	12,950,670.1
Unknown	2	1,165	17.17	2	NA	NA	NA	1,682.6
Psychotropic Medications								
Female	4,588,373	12,686,975	3,616.60	60,132,392	60,865,150	2,191,982,471	3,530,619,812	16,820,902.7
Male	2,374,064	9,907,936	2,396.12	27,375,925	27,825,489	977,260,251	1,621,709,087	12,950,670.1
Unknown	391	1,165	3,356.22	4,681	4,722	169,348	242,501	1,682.6

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 4b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Sex

Sex	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events²								
Female	986,837	3,048,670	3,236.94	8,606,606	NA	NA	NA	5,854,213.2
Male	578,811	2,336,815	2,476.92	4,535,649	NA	NA	NA	4,361,655.0
Unknown	69	247	2,793.52	345	NA	NA	NA	381.6
Anxiousness								
Female	471,779	3,048,670	1,547.49	2,310,709	NA	NA	NA	5,854,213.2
Male	200,110	2,336,815	856.34	962,818	NA	NA	NA	4,361,655.0
Unknown	29	247	1,174.09	141	NA	NA	NA	381.6
Drug Induced Mental Disorders								
Female	7,488	3,048,670	24.56	10,967	NA	NA	NA	5,854,213.2
Male	5,367	2,336,815	22.97	8,488	NA	NA	NA	4,361,655.0
Unknown	2	247	80.97	2	NA	NA	NA	381.6
Conduct Disturbance								
Female	35,758	3,048,670	117.29	224,533	NA	NA	NA	5,854,213.2
Male	53,304	2,336,815	228.11	384,800	NA	NA	NA	4,361,655.0
Unknown	2	247	80.97	4	NA	NA	NA	381.6
Disorders of Attention								
Female	67,294	3,048,670	220.73	487,481	NA	NA	NA	5,854,213.2
Male	103,080	2,336,815	441.11	930,916	NA	NA	NA	4,361,655.0
Unknown	1	247	40.49	25	NA	NA	NA	381.6
Delirium and Psychosis								
Female	35,035	3,048,670	114.92	96,175	NA	NA	NA	5,854,213.2
Male	24,733	2,336,815	105.84	73,293	NA	NA	NA	4,361,655.0
Unknown	3	247	121.46	3	NA	NA	NA	381.6
Movement Disorders								
Female	37,274	3,048,670	122.26	73,459	NA	NA	NA	5,854,213.2
Male	28,759	2,336,815	123.07	66,660	NA	NA	NA	4,361,655.0
Unknown	0	247	0.00	0	NA	NA	NA	381.6

Table 4b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Sex

Sex	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Mood Disorders								
Female	645,012	3,048,670	2,115.72	5,808,285	NA	NA	NA	5,854,213.2
Male	263,115	2,336,815	1,125.96	2,070,213	NA	NA	NA	4,361,655.0
Unknown	46	247	1,862.35	230	NA	NA	NA	381.6
Suicidal Thinking and Behavior								
Female	18,926	3,048,670	62.08	31,026	NA	NA	NA	5,854,213.2
Male	9,084	2,336,815	38.87	14,414	NA	NA	NA	4,361,655.0
Unknown	2	247	80.97	2	NA	NA	NA	381.6
Sleep Disturbance								
Female	311,412	3,048,670	1,021.47	875,753	NA	NA	NA	5,854,213.2
Male	226,191	2,336,815	967.95	706,485	NA	NA	NA	4,361,655.0
Unknown	16	247	647.77	34	NA	NA	NA	381.6
Hallucinations								
Female	5,498	3,048,670	18.03	8,006	NA	NA	NA	5,854,213.2
Male	3,216	2,336,815	13.76	4,510	NA	NA	NA	4,361,655.0
Unknown	0	247	0.00	0	NA	NA	NA	381.6
Psychotropic Medications								
Female	1,153,056	3,048,670	3,782.16	18,391,730	18,670,247	750,397,596	1,447,409,847	5,854,213.2
Male	588,781	2,336,815	2,519.59	8,133,400	8,308,595	323,644,192	644,151,258	4,361,655.0
Unknown	84	247	3,400.81	645	651	30,763	47,049	381.6

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Any Neuropsychiatric Events²								
2000	82,090	710,211	1,155.85	255,188	NA	NA	NA	259,910.4
2001	155,261	1,014,615	1,530.25	606,280	NA	NA	NA	574,542.0
2002	180,372	1,107,647	1,628.42	706,547	NA	NA	NA	635,064.0
2003	201,696	1,163,773	1,733.12	823,424	NA	NA	NA	666,431.0
2004	215,863	1,230,937	1,753.65	897,569	NA	NA	NA	689,238.8
2005	219,987	1,265,628	1,738.16	817,637	NA	NA	NA	726,071.3
2006	327,834	2,294,387	1,428.85	1,181,252	NA	NA	NA	1,059,120.3
2007	440,534	2,851,618	1,544.86	1,759,583	NA	NA	NA	1,507,127.1
2008	748,451	4,927,097	1,519.05	2,817,462	NA	NA	NA	2,341,210.8
2009	916,318	5,519,726	1,660.08	3,687,739	NA	NA	NA	2,995,050.1
2010	949,932	5,524,857	1,719.38	3,833,057	NA	NA	NA	3,006,448.5
2011	985,454	5,458,962	1,805.20	3,954,658	NA	NA	NA	2,972,801.3
2012	1,073,523	5,653,500	1,898.86	4,294,917	NA	NA	NA	3,044,005.1
2013	1,217,802	6,172,938	1,972.81	4,930,411	NA	NA	NA	3,318,280.3
2014	1,331,000	6,475,157	2,055.55	5,356,564	NA	NA	NA	3,463,364.2
2015	1,104,133	5,417,742	2,037.99	3,997,897	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Anxiousness								
2000	25,270	710,211	355.81	56,715	NA	NA	NA	259,910.4
2001	52,193	1,014,615	514.41	134,814	NA	NA	NA	574,542.0
2002	60,534	1,107,647	546.51	156,678	NA	NA	NA	635,064.0
2003	68,094	1,163,773	585.11	181,131	NA	NA	NA	666,431.0
2004	69,399	1,230,937	563.79	178,525	NA	NA	NA	689,238.8
2005	65,102	1,265,628	514.38	156,235	NA	NA	NA	726,071.3
2006	94,872	2,294,387	413.50	249,086	NA	NA	NA	1,059,120.3
2007	133,599	2,851,618	468.50	394,295	NA	NA	NA	1,507,127.1
2008	231,848	4,927,097	470.56	663,218	NA	NA	NA	2,341,210.8
2009	302,095	5,519,726	547.30	936,154	NA	NA	NA	2,995,050.1
2010	330,448	5,524,857	598.11	1,034,208	NA	NA	NA	3,006,448.5
2011	359,424	5,458,962	658.41	1,131,389	NA	NA	NA	2,972,801.3
2012	416,789	5,653,500	737.22	1,323,210	NA	NA	NA	3,044,005.1
2013	496,666	6,172,938	804.59	1,619,195	NA	NA	NA	3,318,280.3
2014	565,103	6,475,157	872.72	1,846,893	NA	NA	NA	3,463,364.2
2015	474,057	5,417,742	875.01	1,419,055	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Drug Induced Mental Disorders								
2000	223	710,211	3.14	337	NA	NA	NA	259,910.4
2001	598	1,014,615	5.89	994	NA	NA	NA	574,542.0
2002	727	1,107,647	6.56	1,040	NA	NA	NA	635,064.0
2003	882	1,163,773	7.58	1,227	NA	NA	NA	666,431.0
2004	1,017	1,230,937	8.26	1,309	NA	NA	NA	689,238.8
2005	1,086	1,265,628	8.58	1,291	NA	NA	NA	726,071.3
2006	1,035	2,294,387	4.51	1,327	NA	NA	NA	1,059,120.3
2007	1,442	2,851,618	5.06	2,021	NA	NA	NA	1,507,127.1
2008	2,381	4,927,097	4.83	3,399	NA	NA	NA	2,341,210.8
2009	2,962	5,519,726	5.37	4,416	NA	NA	NA	2,995,050.1
2010	2,798	5,524,857	5.06	4,356	NA	NA	NA	3,006,448.5
2011	3,003	5,458,962	5.50	4,670	NA	NA	NA	2,972,801.3
2012	3,227	5,653,500	5.71	5,017	NA	NA	NA	3,044,005.1
2013	3,544	6,172,938	5.74	6,128	NA	NA	NA	3,318,280.3
2014	3,697	6,475,157	5.71	6,444	NA	NA	NA	3,463,364.2
2015	3,272	5,417,742	6.04	5,960	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Conduct Disturbance								
2000	3,035	710,211	42.73	10,650	NA	NA	NA	259,910.4
2001	6,386	1,014,615	62.94	25,619	NA	NA	NA	574,542.0
2002	6,834	1,107,647	61.70	27,603	NA	NA	NA	635,064.0
2003	7,523	1,163,773	64.64	32,638	NA	NA	NA	666,431.0
2004	7,978	1,230,937	64.81	33,264	NA	NA	NA	689,238.8
2005	7,369	1,265,628	58.22	23,995	NA	NA	NA	726,071.3
2006	10,345	2,294,387	45.09	42,079	NA	NA	NA	1,059,120.3
2007	12,883	2,851,618	45.18	51,989	NA	NA	NA	1,507,127.1
2008	19,321	4,927,097	39.21	78,628	NA	NA	NA	2,341,210.8
2009	23,243	5,519,726	42.11	104,187	NA	NA	NA	2,995,050.1
2010	24,998	5,524,857	45.25	113,354	NA	NA	NA	3,006,448.5
2011	24,977	5,458,962	45.75	113,075	NA	NA	NA	2,972,801.3
2012	26,160	5,653,500	46.27	122,837	NA	NA	NA	3,044,005.1
2013	28,348	6,172,938	45.92	135,542	NA	NA	NA	3,318,280.3
2014	29,271	6,475,157	45.21	138,952	NA	NA	NA	3,463,364.2
2015	23,554	5,417,742	43.48	106,379	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Disorders of Attention								
2000	5,200	710,211	73.22	14,065	NA	NA	NA	259,910.4
2001	10,373	1,014,615	102.24	34,969	NA	NA	NA	574,542.0
2002	11,897	1,107,647	107.41	41,823	NA	NA	NA	635,064.0
2003	14,420	1,163,773	123.91	53,377	NA	NA	NA	666,431.0
2004	17,017	1,230,937	138.24	62,489	NA	NA	NA	689,238.8
2005	17,034	1,265,628	134.59	52,766	NA	NA	NA	726,071.3
2006	29,584	2,294,387	128.94	97,145	NA	NA	NA	1,059,120.3
2007	40,801	2,851,618	143.08	136,238	NA	NA	NA	1,507,127.1
2008	72,461	4,927,097	147.07	223,186	NA	NA	NA	2,341,210.8
2009	94,533	5,519,726	171.26	314,196	NA	NA	NA	2,995,050.1
2010	106,548	5,524,857	192.85	359,887	NA	NA	NA	3,006,448.5
2011	114,483	5,458,962	209.72	390,165	NA	NA	NA	2,972,801.3
2012	128,574	5,653,500	227.42	434,889	NA	NA	NA	3,044,005.1
2013	148,141	6,172,938	239.98	504,774	NA	NA	NA	3,318,280.3
2014	158,529	6,475,157	244.83	533,204	NA	NA	NA	3,463,364.2
2015	128,350	5,417,742	236.91	394,302	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Delirium and Psychosis								
2000	1,872	710,211	26.36	5,197	NA	NA	NA	259,910.4
2001	3,939	1,014,615	38.82	11,686	NA	NA	NA	574,542.0
2002	4,503	1,107,647	40.65	12,053	NA	NA	NA	635,064.0
2003	4,851	1,163,773	41.68	12,386	NA	NA	NA	666,431.0
2004	5,487	1,230,937	44.58	13,379	NA	NA	NA	689,238.8
2005	5,672	1,265,628	44.82	11,451	NA	NA	NA	726,071.3
2006	5,947	2,294,387	25.92	12,083	NA	NA	NA	1,059,120.3
2007	8,236	2,851,618	28.88	15,575	NA	NA	NA	1,507,127.1
2008	14,680	4,927,097	29.79	26,813	NA	NA	NA	2,341,210.8
2009	17,733	5,519,726	32.13	33,913	NA	NA	NA	2,995,050.1
2010	19,091	5,524,857	34.55	36,894	NA	NA	NA	3,006,448.5
2011	21,096	5,458,962	38.64	41,201	NA	NA	NA	2,972,801.3
2012	23,881	5,653,500	42.24	45,863	NA	NA	NA	3,044,005.1
2013	27,197	6,172,938	44.06	53,857	NA	NA	NA	3,318,280.3
2014	29,643	6,475,157	45.78	58,595	NA	NA	NA	3,463,364.2
2015	24,212	5,417,742	44.69	45,902	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Movement Disorders								
2000	1,619	710,211	22.80	2,288	NA	NA	NA	259,910.4
2001	3,758	1,014,615	37.04	5,685	NA	NA	NA	574,542.0
2002	4,664	1,107,647	42.11	7,023	NA	NA	NA	635,064.0
2003	5,268	1,163,773	45.27	8,238	NA	NA	NA	666,431.0
2004	5,502	1,230,937	44.70	8,412	NA	NA	NA	689,238.8
2005	4,952	1,265,628	39.13	7,327	NA	NA	NA	726,071.3
2006	6,898	2,294,387	30.06	11,172	NA	NA	NA	1,059,120.3
2007	10,004	2,851,618	35.08	17,206	NA	NA	NA	1,507,127.1
2008	17,154	4,927,097	34.82	30,004	NA	NA	NA	2,341,210.8
2009	22,740	5,519,726	41.20	40,483	NA	NA	NA	2,995,050.1
2010	23,874	5,524,857	43.21	42,779	NA	NA	NA	3,006,448.5
2011	25,131	5,458,962	46.04	45,045	NA	NA	NA	2,972,801.3
2012	28,156	5,653,500	49.80	51,399	NA	NA	NA	3,044,005.1
2013	31,863	6,172,938	51.62	58,647	NA	NA	NA	3,318,280.3
2014	36,270	6,475,157	56.01	66,564	NA	NA	NA	3,463,364.2
2015	29,076	5,417,742	53.67	52,648	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Mood Disorders								
2000	51,896	710,211	730.71	172,942	NA	NA	NA	259,910.4
2001	97,484	1,014,615	960.80	408,671	NA	NA	NA	574,542.0
2002	112,144	1,107,647	1,012.45	467,079	NA	NA	NA	635,064.0
2003	124,686	1,163,773	1,071.39	536,854	NA	NA	NA	666,431.0
2004	130,795	1,230,937	1,062.56	567,295	NA	NA	NA	689,238.8
2005	128,863	1,265,628	1,018.17	500,463	NA	NA	NA	726,071.3
2006	175,389	2,294,387	764.43	686,458	NA	NA	NA	1,059,120.3
2007	232,446	2,851,618	815.14	1,010,781	NA	NA	NA	1,507,127.1
2008	378,283	4,927,097	767.76	1,576,502	NA	NA	NA	2,341,210.8
2009	461,980	5,519,726	836.96	2,089,511	NA	NA	NA	2,995,050.1
2010	481,556	5,524,857	871.62	2,181,331	NA	NA	NA	3,006,448.5
2011	497,790	5,458,962	911.88	2,230,602	NA	NA	NA	2,972,801.3
2012	536,933	5,653,500	949.74	2,395,379	NA	NA	NA	3,044,005.1
2013	607,239	6,172,938	983.71	2,739,023	NA	NA	NA	3,318,280.3
2014	666,866	6,475,157	1,029.88	2,963,141	NA	NA	NA	3,463,364.2
2015	560,064	5,417,742	1,033.76	2,200,570	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Suicidal Thinking and Behavior								
2000	400	710,211	5.63	461	NA	NA	NA	259,910.4
2001	976	1,014,615	9.62	1,155	NA	NA	NA	574,542.0
2002	1,108	1,107,647	10.00	1,358	NA	NA	NA	635,064.0
2003	1,271	1,163,773	10.92	1,520	NA	NA	NA	666,431.0
2004	1,351	1,230,937	10.98	1,622	NA	NA	NA	689,238.8
2005	1,652	1,265,628	13.05	1,971	NA	NA	NA	726,071.3
2006	2,092	2,294,387	9.12	2,682	NA	NA	NA	1,059,120.3
2007	3,065	2,851,618	10.75	3,846	NA	NA	NA	1,507,127.1
2008	5,063	4,927,097	10.28	6,773	NA	NA	NA	2,341,210.8
2009	6,355	5,519,726	11.51	8,645	NA	NA	NA	2,995,050.1
2010	7,069	5,524,857	12.79	9,705	NA	NA	NA	3,006,448.5
2011	7,519	5,458,962	13.77	10,892	NA	NA	NA	2,972,801.3
2012	8,736	5,653,500	15.45	12,988	NA	NA	NA	3,044,005.1
2013	10,086	6,172,938	16.34	15,755	NA	NA	NA	3,318,280.3
2014	11,868	6,475,157	18.33	19,447	NA	NA	NA	3,463,364.2
2015	9,541	5,417,742	17.61	15,329	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Sleep Disturbance								
2000	13,853	710,211	195.05	24,140	NA	NA	NA	259,910.4
2001	31,040	1,014,615	305.93	61,398	NA	NA	NA	574,542.0
2002	39,766	1,107,647	359.01	80,899	NA	NA	NA	635,064.0
2003	48,468	1,163,773	416.47	103,534	NA	NA	NA	666,431.0
2004	54,458	1,230,937	442.41	127,881	NA	NA	NA	689,238.8
2005	59,572	1,265,628	470.69	141,289	NA	NA	NA	726,071.3
2006	95,893	2,294,387	417.95	196,240	NA	NA	NA	1,059,120.3
2007	132,526	2,851,618	464.74	300,831	NA	NA	NA	1,507,127.1
2008	232,017	4,927,097	470.90	498,694	NA	NA	NA	2,341,210.8
2009	283,385	5,519,726	513.40	569,029	NA	NA	NA	2,995,050.1
2010	280,862	5,524,857	508.36	531,970	NA	NA	NA	3,006,448.5
2011	286,648	5,458,962	525.10	528,389	NA	NA	NA	2,972,801.3
2012	305,325	5,653,500	540.06	548,782	NA	NA	NA	3,044,005.1
2013	348,413	6,172,938	564.42	623,939	NA	NA	NA	3,318,280.3
2014	383,105	6,475,157	591.65	689,646	NA	NA	NA	3,463,364.2
2015	308,505	5,417,742	569.43	525,906	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Hallucinations								
2000	136	710,211	1.91	153	NA	NA	NA	259,910.4
2001	391	1,014,615	3.85	463	NA	NA	NA	574,542.0
2002	553	1,107,647	4.99	664	NA	NA	NA	635,064.0
2003	589	1,163,773	5.06	709	NA	NA	NA	666,431.0
2004	640	1,230,937	5.20	731	NA	NA	NA	689,238.8
2005	749	1,265,628	5.92	906	NA	NA	NA	726,071.3
2006	721	2,294,387	3.14	875	NA	NA	NA	1,059,120.3
2007	977	2,851,618	3.43	1,306	NA	NA	NA	1,507,127.1
2008	1,641	4,927,097	3.33	2,131	NA	NA	NA	2,341,210.8
2009	2,196	5,519,726	3.98	3,011	NA	NA	NA	2,995,050.1
2010	2,446	5,524,857	4.43	3,266	NA	NA	NA	3,006,448.5
2011	2,660	5,458,962	4.87	3,613	NA	NA	NA	2,972,801.3
2012	2,977	5,653,500	5.27	4,150	NA	NA	NA	3,044,005.1
2013	3,482	6,172,938	5.64	5,020	NA	NA	NA	3,318,280.3
2014	3,999	6,475,157	6.18	6,091	NA	NA	NA	3,463,364.2
2015	3,317	5,417,742	6.12	4,926	NA	NA	NA	2,514,590.3

Table 5a. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member- Years ¹
Psychotropic Medications								
2000	151,827	710,211	2,137.77	662,317	671,596	22,127,238	41,341,047	259,910.4
2001	243,984	1,014,615	2,404.70	1,563,263	1,589,246	53,518,400	97,435,959	574,542.0
2002	280,360	1,107,647	2,531.13	1,875,074	1,909,990	65,985,994	115,127,497	635,064.0
2003	310,172	1,163,773	2,665.23	2,190,064	2,234,682	77,636,021	134,119,084	666,431.0
2004	344,021	1,230,937	2,794.79	2,578,738	2,636,517	90,313,703	412,930,793	689,238.8
2005	352,599	1,265,628	2,785.96	2,584,941	2,644,447	90,736,780	165,796,858	726,071.3
2006	541,442	2,294,387	2,359.85	2,510,327	2,548,450	96,087,487	159,008,150	1,059,120.3
2007	704,484	2,851,618	2,470.47	3,924,623	3,980,502	143,381,626	227,926,888	1,507,127.1
2008	1,213,353	4,927,097	2,462.61	6,487,812	6,570,427	228,328,100	352,662,929	2,341,210.8
2009	1,398,372	5,519,726	2,533.41	8,370,209	8,471,949	294,227,850	448,110,787	2,995,050.1
2010	1,416,385	5,524,857	2,563.66	8,501,094	8,603,612	302,047,714	457,255,200	3,006,448.5
2011	1,433,532	5,458,962	2,626.02	8,632,820	8,733,650	310,850,777	466,554,303	2,972,801.3
2012	1,506,144	5,653,500	2,664.09	9,004,803	9,111,695	328,414,213	488,690,912	3,044,005.1
2013	1,666,880	6,172,938	2,700.30	10,049,656	10,172,362	368,310,553	549,593,361	3,318,280.3
2014	1,778,627	6,475,157	2,746.85	10,721,964	10,858,024	398,051,057	590,985,955	3,463,364.2
2015	1,496,286	5,417,742	2,761.83	7,855,293	7,958,212	299,394,557	445,031,679	2,514,590.3

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Any Neuropsychiatric Events²								
2000	79,451	690,992	1,149.81	248,351	NA	NA	NA	253,005.0
2001	150,576	982,904	1,531.95	589,712	NA	NA	NA	558,773.5
2002	174,065	1,063,277	1,637.06	685,313	NA	NA	NA	610,104.2
2003	195,040	1,116,180	1,747.39	801,886	NA	NA	NA	640,500.5
2004	208,291	1,179,178	1,766.41	871,224	NA	NA	NA	660,768.8
2005	210,077	1,197,724	1,753.97	783,801	NA	NA	NA	692,717.2
2006	189,769	1,145,811	1,656.20	714,855	NA	NA	NA	640,993.7
2007	193,472	1,138,882	1,698.79	722,132	NA	NA	NA	644,511.4
2008	198,074	1,130,204	1,752.55	759,013	NA	NA	NA	650,559.0
2009	208,545	1,159,847	1,798.04	824,442	NA	NA	NA	662,759.8
2010	226,077	1,206,195	1,874.30	915,429	NA	NA	NA	694,934.5
2011	237,371	1,222,840	1,941.15	962,189	NA	NA	NA	702,684.0
2012	250,150	1,222,745	2,045.81	1,024,357	NA	NA	NA	707,749.7
2013	264,855	1,250,480	2,118.03	1,093,191	NA	NA	NA	729,205.3
2014	286,792	1,296,445	2,212.14	1,184,594	NA	NA	NA	753,850.5
2015	263,700	1,253,261	2,104.11	962,111	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Anxiousness								
2000	24,596	690,992	355.95	55,488	NA	NA	NA	253,005.0
2001	50,755	982,904	516.38	131,669	NA	NA	NA	558,773.5
2002	58,515	1,063,277	550.33	152,344	NA	NA	NA	610,104.2
2003	65,979	1,116,180	591.11	176,700	NA	NA	NA	640,500.5
2004	66,959	1,179,178	567.84	173,046	NA	NA	NA	660,768.8
2005	62,040	1,197,724	517.98	149,322	NA	NA	NA	692,717.2
2006	57,825	1,145,811	504.66	150,405	NA	NA	NA	640,993.7
2007	60,324	1,138,882	529.68	161,310	NA	NA	NA	644,511.4
2008	62,990	1,130,204	557.33	172,890	NA	NA	NA	650,559.0
2009	68,427	1,159,847	589.97	193,120	NA	NA	NA	662,759.8
2010	77,930	1,206,195	646.08	225,985	NA	NA	NA	694,934.5
2011	84,419	1,222,840	690.35	246,968	NA	NA	NA	702,684.0
2012	94,528	1,222,745	773.08	284,050	NA	NA	NA	707,749.7
2013	103,847	1,250,480	830.46	321,652	NA	NA	NA	729,205.3
2014	116,938	1,296,445	901.99	369,673	NA	NA	NA	753,850.5
2015	107,889	1,253,261	860.87	309,046	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Drug Induced Mental Disorders								
2000	219	690,992	3.17	331	NA	NA	NA	253,005.0
2001	586	982,904	5.96	968	NA	NA	NA	558,773.5
2002	705	1,063,277	6.63	1,007	NA	NA	NA	610,104.2
2003	852	1,116,180	7.63	1,187	NA	NA	NA	640,500.5
2004	988	1,179,178	8.38	1,275	NA	NA	NA	660,768.8
2005	1,049	1,197,724	8.76	1,248	NA	NA	NA	692,717.2
2006	762	1,145,811	6.65	957	NA	NA	NA	640,993.7
2007	817	1,138,882	7.17	1,119	NA	NA	NA	644,511.4
2008	890	1,130,204	7.87	1,225	NA	NA	NA	650,559.0
2009	971	1,159,847	8.37	1,267	NA	NA	NA	662,759.8
2010	973	1,206,195	8.07	1,323	NA	NA	NA	694,934.5
2011	938	1,222,840	7.67	1,322	NA	NA	NA	702,684.0
2012	1,002	1,222,745	8.19	1,486	NA	NA	NA	707,749.7
2013	1,024	1,250,480	8.19	1,543	NA	NA	NA	729,205.3
2014	1,051	1,296,445	8.11	1,634	NA	NA	NA	753,850.5
2015	976	1,253,261	7.79	1,565	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Conduct Disturbance								
2000	2,865	690,992	41.46	10,342	NA	NA	NA	253,005.0
2001	5,992	982,904	60.96	24,734	NA	NA	NA	558,773.5
2002	6,307	1,063,277	59.32	26,477	NA	NA	NA	610,104.2
2003	6,974	1,116,180	62.48	31,514	NA	NA	NA	640,500.5
2004	7,414	1,179,178	62.87	32,036	NA	NA	NA	660,768.8
2005	6,741	1,197,724	56.28	22,631	NA	NA	NA	692,717.2
2006	7,490	1,145,811	65.37	33,034	NA	NA	NA	640,993.7
2007	7,483	1,138,882	65.70	30,850	NA	NA	NA	644,511.4
2008	7,813	1,130,204	69.13	34,188	NA	NA	NA	650,559.0
2009	8,432	1,159,847	72.70	39,750	NA	NA	NA	662,759.8
2010	9,717	1,206,195	80.56	47,877	NA	NA	NA	694,934.5
2011	10,209	1,222,840	83.49	48,245	NA	NA	NA	702,684.0
2012	10,782	1,222,745	88.18	52,973	NA	NA	NA	707,749.7
2013	11,387	1,250,480	91.06	59,073	NA	NA	NA	729,205.3
2014	12,006	1,296,445	92.61	63,017	NA	NA	NA	753,850.5
2015	10,438	1,253,261	83.29	52,596	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Disorders of Attention								
2000	4,910	690,992	71.06	13,571	NA	NA	NA	253,005.0
2001	9,792	982,904	99.62	33,687	NA	NA	NA	558,773.5
2002	11,145	1,063,277	104.82	40,203	NA	NA	NA	610,104.2
2003	13,603	1,116,180	121.87	51,618	NA	NA	NA	640,500.5
2004	16,040	1,179,178	136.03	60,449	NA	NA	NA	660,768.8
2005	15,832	1,197,724	132.18	50,161	NA	NA	NA	692,717.2
2006	17,565	1,145,811	153.30	68,993	NA	NA	NA	640,993.7
2007	18,894	1,138,882	165.90	72,716	NA	NA	NA	644,511.4
2008	20,024	1,130,204	177.17	81,282	NA	NA	NA	650,559.0
2009	22,911	1,159,847	197.53	95,906	NA	NA	NA	662,759.8
2010	27,073	1,206,195	224.45	118,957	NA	NA	NA	694,934.5
2011	29,829	1,222,840	243.93	130,144	NA	NA	NA	702,684.0
2012	32,499	1,222,745	265.79	144,535	NA	NA	NA	707,749.7
2013	34,732	1,250,480	277.75	158,819	NA	NA	NA	729,205.3
2014	37,072	1,296,445	285.95	166,459	NA	NA	NA	753,850.5
2015	34,025	1,253,261	271.49	130,922	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Delirium and Psychosis								
2000	1,799	690,992	26.04	5,103	NA	NA	NA	253,005.0
2001	3,808	982,904	38.74	11,462	NA	NA	NA	558,773.5
2002	4,353	1,063,277	40.94	11,815	NA	NA	NA	610,104.2
2003	4,657	1,116,180	41.72	12,111	NA	NA	NA	640,500.5
2004	5,254	1,179,178	44.56	13,060	NA	NA	NA	660,768.8
2005	5,377	1,197,724	44.89	10,933	NA	NA	NA	692,717.2
2006	3,943	1,145,811	34.41	8,619	NA	NA	NA	640,993.7
2007	3,777	1,138,882	33.16	7,902	NA	NA	NA	644,511.4
2008	4,620	1,130,204	40.88	9,017	NA	NA	NA	650,559.0
2009	4,218	1,159,847	36.37	9,090	NA	NA	NA	662,759.8
2010	4,639	1,206,195	38.46	10,518	NA	NA	NA	694,934.5
2011	4,954	1,222,840	40.51	11,431	NA	NA	NA	702,684.0
2012	5,241	1,222,745	42.86	11,289	NA	NA	NA	707,749.7
2013	5,738	1,250,480	45.89	12,517	NA	NA	NA	729,205.3
2014	6,231	1,296,445	48.06	13,771	NA	NA	NA	753,850.5
2015	5,359	1,253,261	42.76	10,833	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Movement Disorders								
2000	1,568	690,992	22.69	2,211	NA	NA	NA	253,005.0
2001	3,645	982,904	37.08	5,531	NA	NA	NA	558,773.5
2002	4,477	1,063,277	42.11	6,762	NA	NA	NA	610,104.2
2003	5,066	1,116,180	45.39	7,968	NA	NA	NA	640,500.5
2004	5,310	1,179,178	45.03	8,142	NA	NA	NA	660,768.8
2005	4,674	1,197,724	39.02	6,924	NA	NA	NA	692,717.2
2006	4,132	1,145,811	36.06	6,809	NA	NA	NA	640,993.7
2007	4,370	1,138,882	38.37	7,226	NA	NA	NA	644,511.4
2008	4,811	1,130,204	42.57	7,964	NA	NA	NA	650,559.0
2009	5,375	1,159,847	46.34	9,128	NA	NA	NA	662,759.8
2010	5,958	1,206,195	49.39	10,066	NA	NA	NA	694,934.5
2011	6,281	1,222,840	51.36	10,859	NA	NA	NA	702,684.0
2012	6,742	1,222,745	55.14	11,914	NA	NA	NA	707,749.7
2013	7,320	1,250,480	58.54	12,843	NA	NA	NA	729,205.3
2014	8,033	1,296,445	61.96	14,182	NA	NA	NA	753,850.5
2015	6,958	1,253,261	55.52	11,590	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Mood Disorders								
2000	50,255	690,992	727.29	168,765	NA	NA	NA	253,005.0
2001	94,511	982,904	961.55	398,595	NA	NA	NA	558,773.5
2002	108,296	1,063,277	1,018.51	454,749	NA	NA	NA	610,104.2
2003	120,645	1,116,180	1,080.87	524,426	NA	NA	NA	640,500.5
2004	126,379	1,179,178	1,071.76	552,718	NA	NA	NA	660,768.8
2005	123,232	1,197,724	1,028.88	481,982	NA	NA	NA	692,717.2
2006	108,950	1,145,811	950.85	432,630	NA	NA	NA	640,993.7
2007	111,434	1,138,882	978.45	439,036	NA	NA	NA	644,511.4
2008	112,238	1,130,204	993.08	456,063	NA	NA	NA	650,559.0
2009	116,683	1,159,847	1,006.02	491,666	NA	NA	NA	662,759.8
2010	125,248	1,206,195	1,038.37	535,772	NA	NA	NA	694,934.5
2011	129,744	1,222,840	1,061.01	556,055	NA	NA	NA	702,684.0
2012	134,436	1,222,745	1,099.46	579,287	NA	NA	NA	707,749.7
2013	140,997	1,250,480	1,127.54	609,678	NA	NA	NA	729,205.3
2014	154,453	1,296,445	1,191.36	660,099	NA	NA	NA	753,850.5
2015	143,236	1,253,261	1,142.91	537,207	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Suicidal Thinking and Behavior								
2000	394	690,992	5.70	454	NA	NA	NA	253,005.0
2001	958	982,904	9.75	1,134	NA	NA	NA	558,773.5
2002	1,080	1,063,277	10.16	1,324	NA	NA	NA	610,104.2
2003	1,243	1,116,180	11.14	1,487	NA	NA	NA	640,500.5
2004	1,315	1,179,178	11.15	1,574	NA	NA	NA	660,768.8
2005	1,613	1,197,724	13.47	1,926	NA	NA	NA	692,717.2
2006	1,592	1,145,811	13.89	2,054	NA	NA	NA	640,993.7
2007	1,896	1,138,882	16.65	2,446	NA	NA	NA	644,511.4
2008	2,021	1,130,204	17.88	2,747	NA	NA	NA	650,559.0
2009	2,081	1,159,847	17.94	2,781	NA	NA	NA	662,759.8
2010	2,328	1,206,195	19.30	3,174	NA	NA	NA	694,934.5
2011	2,605	1,222,840	21.30	3,804	NA	NA	NA	702,684.0
2012	2,891	1,222,745	23.64	4,299	NA	NA	NA	707,749.7
2013	3,207	1,250,480	25.65	5,003	NA	NA	NA	729,205.3
2014	3,754	1,296,445	28.96	6,090	NA	NA	NA	753,850.5
2015	3,325	1,253,261	26.53	5,145	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Sleep Disturbance								
2000	13,372	690,992	193.52	23,137	NA	NA	NA	253,005.0
2001	30,013	982,904	305.35	58,904	NA	NA	NA	558,773.5
2002	38,279	1,063,277	360.01	77,253	NA	NA	NA	610,104.2
2003	46,826	1,116,180	419.52	99,835	NA	NA	NA	640,500.5
2004	52,218	1,179,178	442.83	122,458	NA	NA	NA	660,768.8
2005	56,549	1,197,724	472.14	133,995	NA	NA	NA	692,717.2
2006	50,204	1,145,811	438.15	92,596	NA	NA	NA	640,993.7
2007	49,941	1,138,882	438.51	87,763	NA	NA	NA	644,511.4
2008	52,210	1,130,204	461.95	89,020	NA	NA	NA	650,559.0
2009	55,052	1,159,847	474.65	91,205	NA	NA	NA	662,759.8
2010	59,533	1,206,195	493.56	99,812	NA	NA	NA	694,934.5
2011	63,620	1,222,840	520.26	107,862	NA	NA	NA	702,684.0
2012	67,883	1,222,745	555.17	115,823	NA	NA	NA	707,749.7
2013	73,970	1,250,480	591.53	128,981	NA	NA	NA	729,205.3
2014	79,461	1,296,445	612.91	139,227	NA	NA	NA	753,850.5
2015	69,410	1,253,261	553.84	114,401	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Hallucinations								
2000	130	690,992	1.88	146	NA	NA	NA	253,005.0
2001	385	982,904	3.92	450	NA	NA	NA	558,773.5
2002	534	1,063,277	5.02	641	NA	NA	NA	610,104.2
2003	564	1,116,180	5.05	681	NA	NA	NA	640,500.5
2004	624	1,179,178	5.29	712	NA	NA	NA	660,768.8
2005	721	1,197,724	6.02	869	NA	NA	NA	692,717.2
2006	468	1,145,811	4.08	589	NA	NA	NA	640,993.7
2007	463	1,138,882	4.07	637	NA	NA	NA	644,511.4
2008	471	1,130,204	4.17	609	NA	NA	NA	650,559.0
2009	557	1,159,847	4.80	771	NA	NA	NA	662,759.8
2010	637	1,206,195	5.28	896	NA	NA	NA	694,934.5
2011	642	1,222,840	5.25	895	NA	NA	NA	702,684.0
2012	704	1,222,745	5.76	970	NA	NA	NA	707,749.7
2013	869	1,250,480	6.95	1,220	NA	NA	NA	729,205.3
2014	938	1,296,445	7.24	1,306	NA	NA	NA	753,850.5
2015	785	1,253,261	6.26	1,124	NA	NA	NA	613,132.5

Table 5b. Summary of Prevalent Neuropsychiatric Events and Psychotropic Medication Use among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) between January 1, 2000 and September 30, 2015, by Year

Year	Patients	Eligible Members ¹	Patients per 10,000 Eligible Members	Events	Dispensings	Days Supplied	Amount Supplied	Eligible Member-Years ¹
Psychotropic Medications								
2000	148,267	690,992	2,145.71	648,785	657,942	21,714,736	40,562,565	253,005.0
2001	237,757	982,904	2,418.92	1,530,423	1,556,134	52,521,929	95,595,955	558,773.5
2002	271,318	1,063,277	2,551.72	1,825,207	1,859,707	64,422,796	112,376,380	610,104.2
2003	300,393	1,116,180	2,691.26	2,137,359	2,181,169	75,866,422	131,092,316	640,500.5
2004	332,789	1,179,178	2,822.21	2,515,944	2,573,013	88,203,703	409,352,369	660,768.8
2005	339,403	1,197,724	2,833.73	2,515,090	2,573,857	88,324,104	161,761,350	692,717.2
2006	271,190	1,145,811	2,366.80	1,348,040	1,372,561	57,944,637	101,549,820	640,993.7
2007	270,868	1,138,882	2,378.37	1,378,108	1,402,706	60,245,269	103,601,275	644,511.4
2008	273,889	1,130,204	2,423.36	1,426,432	1,450,816	62,571,242	106,920,929	650,559.0
2009	279,982	1,159,847	2,413.96	1,460,949	1,483,338	64,466,416	108,872,171	662,759.8
2010	291,148	1,206,195	2,413.77	1,519,174	1,537,634	67,689,319	113,064,202	694,934.5
2011	299,217	1,222,840	2,446.90	1,569,838	1,588,983	70,237,876	116,220,637	702,684.0
2012	304,532	1,222,745	2,490.56	1,620,840	1,641,190	72,533,083	118,986,188	707,749.7
2013	316,673	1,250,480	2,532.41	1,702,602	1,725,000	77,219,095	126,399,273	729,205.3
2014	337,661	1,296,445	2,604.51	1,845,251	1,871,670	83,100,592	135,959,888	753,850.5
2015	316,516	1,253,261	2,525.54	1,481,733	1,503,773	67,011,332	109,292,835	613,132.5

¹Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on a least one day during the query period.

²Psychotropic Medications are not included in Any Event

Appendix A. List of Dates of Available Data for Each Data Partner (DP) in the Sentinel Distributed Database (SDD) as of Request End Date (September 30, 2015)

DP ID	DP Start Date	DP End Date
DP01	6/1/2007	9/30/2015
DP02	1/1/2000	9/30/2015
DP03	1/1/2000	9/30/2015
DP04	1/1/2008	9/30/2015
DP05	1/1/2004	9/30/2015
DP06	1/1/2000	9/30/2015
DP07	1/1/2006	9/30/2015
DP08	1/1/2005	9/30/2015
DP09	1/1/2000	10/31/2014
DP10	1/1/2000	5/31/2015
DP11	1/1/2000	9/30/2015
DP12	1/1/2000	9/30/2015
DP13	1/1/2000	9/30/2015
DP14	1/1/2008	9/30/2015
DP15	1/1/2000	9/30/2015
DP16	1/1/2012	9/30/2015

Appendix A.1. List of Dates of Available Data for Each Data Partner (DP) among Data Partners with Cause-of-Death Data in the Sentinel Distributed Database (SDD) as of Request End Date (September 30, 2015)

DP ID	DP Start Date	DP End Date
DP01	1/1/2004	9/30/2015
DP02	1/1/2000	9/30/2015
DP03	1/1/2000	9/30/2015
DP04	1/1/2000	9/30/2015
DP05	1/1/2000	9/30/2015
DP06	1/1/2000	9/30/2015
DP07	1/1/2000	9/30/2015

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
Anxiousness		
293.84	Anxiety disorder in conditions classified elsewhere	ICD-9-CM
300	Anxiety, dissociative and somatoform disorders	ICD-9-CM
300.0	Anxiety states	ICD-9-CM
300.00	Anxiety state, unspecified	ICD-9-CM
300.01	Panic disorder without agoraphobia	ICD-9-CM
300.02	Generalized anxiety disorder	ICD-9-CM
300.09	Other anxiety states	ICD-9-CM
300.2	Phobic disorders	ICD-9-CM
300.20	Phobia, unspecified	ICD-9-CM
300.21	Agoraphobia with panic disorder	ICD-9-CM
300.22	Agoraphobia without mention of panic attacks	ICD-9-CM
300.23	Social phobia	ICD-9-CM
300.29	Other isolated or specific phobias	ICD-9-CM
300.3	Obsessive-compulsive disorders	ICD-9-CM
300.5	Neurasthenia	ICD-9-CM
300.6	Depersonalization disorder	ICD-9-CM
300.7	Hypochondriasis	ICD-9-CM
300.8	Somatoform disorders	ICD-9-CM
300.81	Somatization disorder	ICD-9-CM
300.82	Undifferentiated somatoform disorder	ICD-9-CM
300.89	Other somatoform disorders	ICD-9-CM
309.21	Separation anxiety disorder	ICD-9-CM
309.24	Adjustment disorder with anxiety	ICD-9-CM
313.0	Overanxious disorder specific to childhood and adolescence	ICD-9-CM
Conduct Disturbances		
309.3	Adjustment disorder with disturbance of conduct	ICD-9-CM
309.4	Adjustment disorder with mixed disturbance of emotions and conduct	ICD-9-CM
312	Disturbance of conduct, not elsewhere classified	ICD-9-CM
312.0	Undersocialized conduct disorder, aggressive type	ICD-9-CM
312.00	Undersocialized conduct disorder, aggressive type, unspecified	ICD-9-CM
312.01	Undersocialized conduct disorder, aggressive type, mild	ICD-9-CM
312.02	Undersocialized conduct disorder, aggressive type, moderate	ICD-9-CM
312.03	Undersocialized conduct disorder, aggressive type, severe	ICD-9-CM
312.1	Undersocialized conduct disorder, unaggressive type	ICD-9-CM
312.10	Undersocialized conduct disorder, unaggressive type, unspecified	ICD-9-CM
312.11	Undersocialized conduct disorder, unaggressive type, mild	ICD-9-CM
312.12	Undersocialized conduct disorder, unaggressive type, moderate	ICD-9-CM
312.13	Undersocialized conduct disorder, unaggressive type, severe	ICD-9-CM
312.2	Socialized conduct disorder	ICD-9-CM
312.20	Socialized conduct disorder, unspecified	ICD-9-CM
312.21	Socialized conduct disorder, mild	ICD-9-CM
312.22	Socialized conduct disorder, moderate	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
312.23	Socialized conduct disorder, severe	ICD-9-CM
312.3	Disorders of impulse control, not elsewhere classified	ICD-9-CM
312.30	Impulse control disorder, unspecified	ICD-9-CM
312.31	Pathological gambling	ICD-9-CM
312.32	Kleptomania	ICD-9-CM
312.33	Pyromania	ICD-9-CM
312.34	Intermittent explosive disorder	ICD-9-CM
312.35	Isolated explosive disorder	ICD-9-CM
312.39	Other disorder of impulse control	ICD-9-CM
312.4	Mixed disturbance of conduct and emotions	ICD-9-CM
312.8	Other specified disturbances of conduct, not elsewhere classified	ICD-9-CM
312.81	Conduct disorder, childhood onset type	ICD-9-CM
312.82	Conduct disorder, adolescent onset type	ICD-9-CM
312.89	Other specified disturbance of conduct, not elsewhere classified	ICD-9-CM
312.9	Unspecified disturbance of conduct	ICD-9-CM
313.81	Oppositional defiant disorder	ICD-9-CM
Disorders of Attention		
314	Hyperkinetic syndrome of childhood	ICD-9-CM
314.0	Attention deficit disorder of childhood	ICD-9-CM
314.00	Attention deficit disorder of childhood without mention of hyperactivity	ICD-9-CM
314.01	Attention deficit disorder of childhood with hyperactivity	ICD-9-CM
314.1	Hyperkinesis of childhood with developmental delay	ICD-9-CM
314.2	Hyperkinetic conduct disorder of childhood	ICD-9-CM
314.8	Other specified manifestations of hyperkinetic syndrome of childhood	ICD-9-CM
314.9	Unspecified hyperkinetic syndrome of childhood	ICD-9-CM
Drug Induced Mental Disorders		
292.1	Drug-induced psychotic disorder	ICD-9-CM
292.11	Drug-induced psychotic disorder with delusions	ICD-9-CM
292.12	Drug-induced psychotic disorder with hallucinations	ICD-9-CM
292.8	Other specified drug-induced mental disorders	ICD-9-CM
292.81	Drug-induced delirium	ICD-9-CM
292.82	Drug-induced persisting dementia	ICD-9-CM
292.83	Drug-induced persisting amnestic disorder	ICD-9-CM
292.84	Drug-induced mood disorder	ICD-9-CM
292.85	Drug-induced sleep disorders	ICD-9-CM
292.89	Other specified drug-induced mental disorder	ICD-9-CM
292.9	Unspecified drug-induced mental disorder	ICD-9-CM
Delirium and Psychosis		
293	Transient mental disorders due to conditions classified elsewhere	ICD-9-CM
293.0	Delirium due to conditions classified elsewhere	ICD-9-CM
293.1	Subacute delirium	ICD-9-CM
293.8	Other specified transient mental disorders due to conditions classified elsewhere	ICD-9-CM
293.81	Psychotic disorder with delusions in conditions classified elsewhere	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
293.82	Psychotic disorder with hallucinations in conditions classified elsewhere	ICD-9-CM
293.89	Other transient mental disorders due to conditions classified elsewhere	ICD-9-CM
293.9	Unspecified transient mental disorder in conditions classified elsewhere	ICD-9-CM
298	Other nonorganic psychoses	ICD-9-CM
298.1	Excitatory type psychosis	ICD-9-CM
298.2	Reactive confusion	ICD-9-CM
298.3	Acute paranoid reaction	ICD-9-CM
298.4	Psychogenic paranoid psychosis	ICD-9-CM
298.8	Other and unspecified reactive psychosis	ICD-9-CM
298.9	Unspecified psychosis	ICD-9-CM
Movement Disorders		
307.2	Tics	ICD-9-CM
307.20	Tic disorder, unspecified	ICD-9-CM
307.21	Transient tic disorder	ICD-9-CM
307.22	Chronic motor or vocal tic disorder	ICD-9-CM
307.23	Tourette's disorder	ICD-9-CM
307.3	Stereotypic movement disorder	ICD-9-CM
333.2	Myoclonus	ICD-9-CM
333.3	Tics of organic origin	ICD-9-CM
781.0	Abnormal involuntary movements	ICD-9-CM
Hallucinations		
780.1	Hallucinations	ICD-9-CM
Mood Disorders		
293.83	Mood disorder in conditions classified elsewhere	ICD-9-CM
296	Episodic mood disorders	ICD-9-CM
296.0	Bipolar I disorder, single manic episode	ICD-9-CM
296.00	Bipolar I disorder, single manic episode, unspecified	ICD-9-CM
296.01	Bipolar I disorder, single manic episode, mild	ICD-9-CM
296.02	Bipolar I disorder, single manic episode, moderate	ICD-9-CM
296.03	Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior	ICD-9-CM
296.04	Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior	ICD-9-CM
296.05	Bipolar I disorder, single manic episode, in partial or unspecified remission	ICD-9-CM
296.06	Bipolar I disorder, single manic episode, in full remission	ICD-9-CM
296.1	Manic disorder, recurrent episode	ICD-9-CM
296.10	Manic disorder, recurrent episode, unspecified	ICD-9-CM
296.11	Manic disorder, recurrent episode, mild	ICD-9-CM
296.12	Manic disorder, recurrent episode, moderate	ICD-9-CM
296.13	Manic disorder, recurrent episode, severe, without mention of psychotic behavior	ICD-9-CM
296.14	Manic disorder, recurrent episode, severe, specified as with psychotic behavior	ICD-9-CM
296.15	Manic disorder, recurrent episode, in partial or unspecified remission	ICD-9-CM
296.16	Manic disorder, recurrent episode, in full remission	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
296.2	Major depressive disorder, single episode	ICD-9-CM
296.20	Major depressive disorder, single episode, unspecified	ICD-9-CM
296.21	Major depressive disorder, single episode, mild	ICD-9-CM
296.22	Major depressive disorder, single episode, moderate	ICD-9-CM
296.23	Major depressive disorder, single episode, severe, without mention of psychotic behavior	ICD-9-CM
296.24	Major depressive disorder, single episode, severe, specified as with psychotic behavior	ICD-9-CM
296.25	Major depressive disorder, single episode, in partial or unspecified remission	ICD-9-CM
296.26	Major depressive disorder, single episode in full remission	ICD-9-CM
296.3	Major depressive disorder, recurrent episode	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	ICD-9-CM
296.31	Major depressive disorder, recurrent episode, mild	ICD-9-CM
296.32	Major depressive disorder, recurrent episode, moderate	ICD-9-CM
296.33	Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior	ICD-9-CM
296.34	Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	ICD-9-CM
296.35	Major depressive disorder, recurrent episode, in partial or unspecified remission	ICD-9-CM
296.36	Major depressive disorder, recurrent episode, in full remission	ICD-9-CM
296.4	Bipolar I disorder, most recent episode (or current) manic	ICD-9-CM
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	ICD-9-CM
296.41	Bipolar I disorder, most recent episode (or current) manic, mild	ICD-9-CM
296.42	Bipolar I disorder, most recent episode (or current) manic, moderate	ICD-9-CM
296.43	Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior	ICD-9-CM
296.44	Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior	ICD-9-CM
296.45	Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission	ICD-9-CM
296.46	Bipolar I disorder, most recent episode (or current) manic, in full remission	ICD-9-CM
296.5	Bipolar I disorder, most recent episode (or current), depressed	ICD-9-CM
296.50	Bipolar I disorder, most recent episode (or current) depressed, unspecified	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	ICD-9-CM
296.6	Bipolar I disorder, most recent episode (or current), mixed	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	ICD-9-CM
296.7	Bipolar I disorder, most recent episode (or current) unspecified	ICD-9-CM
296.8	Other and unspecified bipolar disorders	ICD-9-CM
296.80	Bipolar disorder, unspecified	ICD-9-CM
296.81	Atypical manic disorder	ICD-9-CM
296.82	Atypical depressive disorder	ICD-9-CM
296.89	Other and unspecified bipolar disorders	ICD-9-CM
296.9	Other and unspecified episodic mood disorder	ICD-9-CM
296.90	Unspecified episodic mood disorder	ICD-9-CM
296.99	Other specified episodic mood disorder	ICD-9-CM
298.0	Depressive type psychosis	ICD-9-CM
301.12	Chronic depressive personality disorder	ICD-9-CM
309.0	Adjustment disorder with depressed mood	ICD-9-CM
309.1	Prolonged depressive reaction as adjustment reaction	ICD-9-CM
309.28	Adjustment disorder with mixed anxiety and depressed mood	ICD-9-CM
311	Depressive disorder, not elsewhere classified	ICD-9-CM
300.4	Dysthymic disorder	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
Sleep Disorders		
307.4	Specific disorders of sleep of nonorganic origin	ICD-9-CM
307.40	Nonorganic sleep disorder, unspecified	ICD-9-CM
307.41	Transient disorder of initiating or maintaining sleep	ICD-9-CM
307.42	Persistent disorder of initiating or maintaining sleep	ICD-9-CM
307.43	Transient disorder of initiating or maintaining wakefulness	ICD-9-CM
307.44	Persistent disorder of initiating or maintaining wakefulness	ICD-9-CM
307.45	Circadian rhythm sleep disorder of nonorganic origin	ICD-9-CM
307.46	Sleep arousal disorder	ICD-9-CM
307.47	Other dysfunctions of sleep stages or arousal from sleep	ICD-9-CM
307.48	Repetitive intrusions of sleep	ICD-9-CM
307.49	Other specific disorder of sleep of nonorganic origin	ICD-9-CM
780.5	Sleep disturbances	ICD-9-CM
780.50	Unspecified sleep disturbance	ICD-9-CM
780.51	Insomnia with sleep apnea, unspecified	ICD-9-CM
780.52	Insomnia, unspecified	ICD-9-CM
780.53	Hypersomnia with sleep apnea, unspecified	ICD-9-CM
780.54	Hypersomnia, unspecified	ICD-9-CM
780.55	Disruption of 24 hour sleep wake cycle, unspecified	ICD-9-CM
780.56	Dysfunctions associated with sleep stages or arousal from sleep	ICD-9-CM
780.57	Unspecified sleep apnea	ICD-9-CM
780.58	Sleep related movement disorder, unspecified	ICD-9-CM
780.59	Other sleep disturbances	ICD-9-CM
Suicidal Thinking and Behavior		
E950	Suicide and self-inflicted poisoning by solid or liquid substances	ICD-9-CM
E950.0	Suicide and self-inflicted poisoning by analgesics, antipyretics, and antirheumatics	ICD-9-CM
E950.1	Suicide and self-inflicted poisoning by barbiturates	ICD-9-CM
E950.2	Suicide and self-inflicted poisoning by other sedatives and hypnotics	ICD-9-CM
E950.3	Suicide and self-inflicted poisoning by tranquilizers and other psychotropic agents	ICD-9-CM
E950.4	Suicide and self-inflicted poisoning by other specified drugs and medicinal substances	ICD-9-CM
E950.5	Suicide and self-inflicted poisoning by unspecified drug or medicinal substance	ICD-9-CM
E950.6	Suicide and self-inflicted poisoning by agricultural and horticultural chemical and pharmaceutical preparations other than plant foods and fertilizers	ICD-9-CM
E950.7	Suicide and self-inflicted poisoning by corrosive and caustic substances	ICD-9-CM
E950.8	Suicide and self-inflicted poisoning by arsenic and its compounds	ICD-9-CM
E950.9	Suicide and self-inflicted poisoning by other and unspecified solid and liquid substances	ICD-9-CM
E951	Suicide and self-inflicted poisoning by gases in domestic use	ICD-9-CM
E951.0	Suicide and self-inflicted poisoning by gas distributed by pipeline	ICD-9-CM
E951.1	Suicide and self-inflicted poisoning by liquefied petroleum gas distributed in mobile containers	ICD-9-CM

Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes Used to Define Neuropsychiatric Events in this Request

Code	Description	Code Type
E951.8	Suicide and self-inflicted poisoning by other utility gas	ICD-9-CM
E952	Suicide and self-inflicted poisoning by other gases and vapors	ICD-9-CM
E952.0	Suicide and self-inflicted poisoning by motor vehicle exhaust gas	ICD-9-CM
E952.1	Suicide and self-inflicted poisoning by other carbon monoxide	ICD-9-CM
E952.8	Suicide and self-inflicted poisoning by other specified gases and vapors	ICD-9-CM
E952.9	Suicide and self-inflicted poisoning by unspecified gases and vapors	ICD-9-CM
E953	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	ICD-9-CM
E953.0	Suicide and self-inflicted injury by hanging	ICD-9-CM
E953.1	Suicide and self-inflicted injury by suffocation by plastic bag	ICD-9-CM
E953.8	Suicide and self-inflicted injury by other specified means	ICD-9-CM
E953.9	Suicide and self-inflicted injury by unspecified means	ICD-9-CM
E954	Suicide and self-inflicted injury by submersion (drowning)	ICD-9-CM
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	ICD-9-CM
E955.0	Suicide and self-inflicted injury by handgun	ICD-9-CM
E955.1	Suicide and self-inflicted injury by shotgun	ICD-9-CM
E955.2	Suicide and self-inflicted injury by hunting rifle	ICD-9-CM
E955.3	Suicide and self-inflicted injury by military firearms	ICD-9-CM
E955.4	Suicide and self-inflicted injury by other and unspecified firearm	ICD-9-CM
E955.5	Suicide and self-inflicted injury by explosives	ICD-9-CM
E955.6	Suicide and self-inflicted injury by air gun	ICD-9-CM
E955.7	Suicide and self-inflicted injury by paintball gun	ICD-9-CM
E955.9	Suicide and self-inflicted injury by firearms and explosives, unspecified	ICD-9-CM
E956	Suicide and self-inflicted injury by cutting and piercing instrument	ICD-9-CM
E957	Suicide and self-inflicted injuries by jumping from high place	ICD-9-CM
E957.0	Suicide and self-inflicted injuries by jumping from residential premises	ICD-9-CM
E957.1	Suicide and self-inflicted injuries by jumping from other man-made structures	ICD-9-CM
E957.2	Suicide and self-inflicted injuries by jumping from natural sites	ICD-9-CM
E957.9	Suicide and self-inflicted injuries by jumping from unspecified site	ICD-9-CM
E958	Suicide and self-inflicted injury by other and unspecified means	ICD-9-CM
E958.0	Suicide and self-inflicted injury by jumping or lying before moving object	ICD-9-CM
E958.1	Suicide and self-inflicted injury by burns, fire	ICD-9-CM
E958.2	Suicide and self-inflicted injury by scald	ICD-9-CM
E958.3	Suicide and self-inflicted injury by extremes of cold	ICD-9-CM
E958.4	Suicide and self-inflicted injury by electrocution	ICD-9-CM
E958.5	Suicide and self-inflicted injury by crashing of motor vehicle	ICD-9-CM
E958.6	Suicide and self-inflicted injury by crashing of aircraft	ICD-9-CM
E958.7	Suicide and self-inflicted injury by caustic substances, except poisoning	ICD-9-CM
E958.8	Suicide and self-inflicted injury by other specified means	ICD-9-CM
E958.9	Suicide and self-inflicted injury by unspecified means	ICD-9-CM
E959	Late effects of self-inflicted injury	ICD-9-CM
V62.84	Suicidal ideation	ICD-9-CM

Appendix C. List of Generic and Brand Drug Names Used to Define Psychotropic Medications in this Request

Generic Name	Brand Name
Antidepressants	
NORTRIPTYLINE HCL	Aventyl
FLUOXETINE HCL	Prozac Weekly
OLANZAPINE/FLUOXETINE HCL	Symbyax
DULOXETINE HCL	Cymbalta
ISOCARBOXAZID	Marplan
PROTRIPTYLINE HCL	Vivactil
TRANLYCPROMINE SULFATE	Parnate
VENLAFAXINE HCL	Effexor
DESVENLAFAXINE SUCCINATE	Pristiq
TRIMIPRAMINE MALEATE	Surmontil
BUPROPION HBR	Aplenzin
IMIPRAMINE PAMOATE	Tofranil-PM
IMIPRAMINE HCL	Tofranil
PAROXETINE HCL	Paxil CR
FLUVOXAMINE MALEATE	Luvox
TRAZODONE HCL	Trazodone
DESIPRAMINE HCL	Desipramine
DOXEPIN HCL	Doxepin
SERTRALINE HCL	Zoloft
MIRTAZAPINE	Remeron
CITALOPRAM HYDROBROMIDE	Citalopram
NEFAZODONE HCL	Nefazodone
PHENELZINE SULFATE	Nardil
CLOMIPRAMINE HCL	Anafranil
MAPROTILINE HCL	Ludiomil
PERPHENAZINE/AMITRIPTYLINE HCL	Etrafon 2-10
BUPROPION HCL	Bupropion HCl
ESCITALOPRAM OXALATE	Escitalopram oxalate
AMITRIPTYLINE HCL/CHLORDIAZEPOXIDE	Limbitrol
AMOXAPINE	Amoxapine
SELEGILINE HCL	Zelapar
PAROXETINE MESYLATE	Paroxetine mesylate(menop.sym)
SELEGILINE	Emsam
NALTREXONE HCL/BUPROPION HCL	Contrave
DESVENLAFAXINE	Desvenlafaxine
DESVENLAFAXINE FUMARATE	Desvenlafaxine fumarate
TRAZODONE HCL/DIETARY SUPPLEMENT NO.8	Trazamine
BUPROPION HCL/DIETARY SUPPLEMENT COMBINATION NO.15	Appbutamone-D
FLUOXETINE HCL/DIETARY SUPPLEMENT NO.17	Gaboxetine
BUPROPION HCL/DIETARY SUPPLEMENT COMBINATION NO.16	Appbutamone
FLUOXETINE HCL/DIETARY SUPPLEMENT NO.8	Sentroxatine

Appendix C. List of Generic and Brand Drug Names Used to Define Psychotropic Medications in this Request

Generic Name	Brand Name
Attention Deficit Hyperactivity Disorder (ADHD) Agents	
ATOMOXETINE HCL	Strattera
DEXTROAMPHETAMINE SULFATE	Dexedrine Spansule
GUANFACINE HCL	Tenex
METHAMPHETAMINE HCL	Methamphetamine
PEMOLINE	Cylert
METHYLPHENIDATE HCL	Ritalin LA
ARMODAFINIL	Armodafinil
DEXMETHYLPHENIDATE HCL	Focalin
DEXTROAMPHETAMINE SULF-SACCHARATE/AMPHETAMINE SULF-ASPARTATE	Dextroamphetamine-amphetamine
LISDEXAMFETAMINE DIMESYLATE	Vyvanse
METHYLPHENIDATE	Daytrana
MODAFINIL	Modafinil
Antipsychotics	
OLANZAPINE	Zyprexa
OLANZAPINE PAMOATE	Zyprexa Relprevv
FLUPHENAZINE DECANOATE	Prolixin Decanoate
FLUPHENAZINE HCL	Prolixin
FLUPHENAZINE ENANTHATE	Prolixin
PROCHLORPERAZINE EDISYLATE	Compazine
PROCHLORPERAZINE MALEATE	Compazine
PROCHLORPERAZINE	Compazine
CHLORPROMAZINE HCL	Thorazine
HALOPERIDOL LACTATE	Haldol
HALOPERIDOL DECANOATE	Haldol Decanoate
ZIPRASIDONE MESYLATE	Geodon
ZIPRASIDONE HCL	Geodon
RISPERIDONE	Risperidone
THIOTHIXENE	Navane
THIOTHIXENE HCL	Navane
ASENAPINE MALEATE	Saphris
QUETIAPINE FUMARATE	Quetiapine
THIORIDAZINE HCL	Thioridazine
CLOZAPINE	Clozaril
PERPHENAZINE	Trilafon
ARIPIRAZOLE	Aripiprazole
TRIFLUOPERAZINE HCL	Stelazine
HALOPERIDOL	Haloperidol
PALIPERIDONE	Paliperidone
PIMOZIDE	Pimozide
RISPERIDONE MICROSPHERES	Risperdal Consta
PALIPERIDONE PALMITATE	Invega Sustenna
ARIPIRAZOLE LAUROXIL	Aristada

Appendix C. List of Generic and Brand Drug Names Used to Define Psychotropic Medications in this Request

Generic Name	Brand Name
Sedative Hypnotics	
MIDAZOLAM HCL	Versed
PENTOBARBITAL SODIUM	Pentobarbital sodium
ZALEPLON	Sonata
TRIAZOLAM	Halcion
MEPHOBARBITAL	Mebaral
ZOLPIDEM TARTRATE	AMBIEN PAK
BELLADONNA ALKALOIDS/BUTABARBITAL SODIUM	Butibel
BUTABARBITAL SODIUM	Butisol
QUAZEPAM	Doral
FLURAZEPAM HCL	Flurazepam
ESZOPICLONE	Eszopiclone
ESTAZOLAM	Prosom
ETHCHLORVYNOL	Placidyl
TEMAZEPAM	Restoril
CHLORAL HYDRATE	Chloral hydrate
SECOBARBITAL SODIUM	Seconal Sodium
MIDAZOLAM HCL IN 0.9 % SODIUM CHLORIDE	Midazolam in 0.9 % sod chlorid
RAMELTEON	Rozerem
MIDAZOLAM HCL IN DEXTROSE 5% IN WATER	Midazolam in dextrose 5 %
AMOBARBITAL SODIUM/SECOBARBITAL SODIUM	Tuinal
MIDAZOLAM HCL IN 5 % DEXTROSE AND WATER/PF	Midazolam in dextrose 5 % (PF)
TEMAZEPAM/DIETARY SUPPLEMENT NO.8	Strazepam
Antianxiety Agents	
DIAZEPAM	Valium
ALPRAZOLAM	Alprazolam
MEPROBAMATE	Equanil
ASPIRIN/MEPROBAMATE	Equagesic
BUSPIRONE HCL	BuSpar
MIDAZOLAM HCL/PF	Midazolam (PF)
DIAZEPAM (IN SOYBEAN OIL)	Dizac
FENTANYL CITRATE/DROPERIDOL	Fentanyl-droperidol
DROPERIDOL	Droperidol
MIDAZOLAM HCL IN 0.9 % SODIUM CHLORIDE/PF	Midazolam (PF) in 0.9 % NaCl
CHLORDIAZEPOXIDE HCL/METHSCOPOLAMINE NITRATE	Librax (with methscopolamine)
OXAZEPAM	Serax
ALPRAZOLAM/DIETARY SUPPLEMENT,MISC COMBO NO.17	Gabazolamine
CHLORDIAZEPOXIDE HCL	Librium
LORAZEPAM IN 0.9 % SODIUM CHLORIDE	Lorazepam in 0.9% sod chloride
LORAZEPAM IN 5 % DEXTROSE AND WATER	Lorazepam in dextrose 5 %
HALAZEPAM	Paxipam
LORAZEPAM	Ativan
CHLORDIAZEPOXIDE/CLIDINIUM BROMIDE	Librax (with clidinium)
CLORAZEPATE DIPOTASSIUM	Tranxene-SD

Appendix C. List of Generic and Brand Drug Names Used to Define Psychotropic Medications in this Request

Generic Name	Brand Name
Mood Stabilizing Agents	
LITHIUM CARBONATE	Eskalith
LITHIUM CITRATE	Lithium citrate
MESORIDAZINE BESYLATE	Serentil
LITHIUM CITRATE TETRAHYDRATE	Lithium citrate tetrahyd(bulk)
LAMOTRIGINE	Lamotrigine
DIVALPROEX SODIUM	Depakote ER
VALPROIC ACID (AS SODIUM SALT) (VALPROATE SODIUM)	Depacon
VALPROIC ACID	Depakene
OXCARBAZEPINE	Oxcarbazepine
CARBAMAZEPINE	Tegretol
CLONAZEPAM	Klonopin

Appendix D. List of Generic and Brand Drug Names Used to Define Inclusions in this Request

Generic Name	Brand Name
MONTELUKAST SODIUM	Singulair
MONTELUKAST SODIUM	montelukast
ZAFIRLUKAST	zafirlukast
BECLOMETHASONE DIPROPIONATE	Beclovent
BUDESONIDE	budesonide
FLUTICASONE PROPIONATE	Flovent Diskus
TRIAMCINOLONE ACETONIDE	Azmacort
MOMETASONE FUROATE	Asmanex Twisthaler
FLUNISOLIDE/MENTHOL	Aerobid-M
CICLESONIDE	Alvesco
FLUTICASONE FUROATE	Arnuity Ellipta
FLUNISOLIDE	Aerospan
MOMETASONE FUROATE/FORMOTEROL FUMARATE	Dulera
FLUTICASONE PROPIONATE/SALMETEROL XINAFOATE	Advair Diskus
FLUTICASONE FUROATE/VILANTEROL TRIFENATATE	Breo Ellipta
BUDESONIDE/FORMOTEROL FUMARATE	Symbicort
BECLOMETHASONE DIPROPIONATE	Vancenase AQ
MOMETASONE FUROATE	Nasonex
FLUNISOLIDE	Nasalide
BUDESONIDE	Rhinocort Aqua
TRIAMCINOLONE ACETONIDE	Nasacort
FLUTICASONE PROPIONATE	fluticasone
FLUTICASONE FUROATE	Veramyst
CICLESONIDE	Zetonna
FLUTICASONE PROPIONATE/SODIUM CHLORIDE/SODIUM BICARBONATE	Ticaspray

Appendix E. Specifications for Parameters in this Request

This request utilized the Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.2.1 to investigate the estimated prevalent counts of neuropsychiatric events and psychotropic medication use following prevalent exposure of montelukast, zafirlukast, inhaled corticosteroids, or nasal corticosteroids in the Sentinel Distributed Database (SDD).

Query Period: January 1, 2000 to September 30, 2015
Enrollment Requirement: 183 days
Enrollment Gap: 45 days
Coverage Requirement: Medical and Drug Coverage
Age Groups: 0-11, 12-17, 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+ Years
Results Stratified by: Age, Sex, and Calendar Year

Scenario	Event				Inclusion Criteria				Characteristics			
	Prevalent Event	Incidence Criteria	Washout (Days)	Care setting/PDX	Cohort Definition	Exposure	Include or Exclude	Lookback Period (Days)	Care setting	Characteristics	Lookback Period (Days)	Care setting
1	Any Event	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Any Event	0, 0	IP IPP AV ED
2	Anxiousness	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Anxiousness	0, 0	IP IPP AV ED
3	Conduct Disturbances	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Conduct disturbances	0, 0	IP IPP AV ED
4	Disorders of Attention	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Disorders of attention	0, 0	IP IPP AV ED
5	Drug Induced Mental Disorders	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Drug Induced Mental Disorders	0, 0	IP IPP AV ED

Scenario	Event				Inclusion Criteria					Characteristics		
	Prevalent Event	Incidence Criteria	Washout (Days)	Care setting/PDX	Cohort Definition	Exposure	Include or Exclude	Lookback Period (Days)	Care setting	Characteristics	Lookback Period (Days)	Care setting
6	Delirium and Psychosis	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Delirium and psychosis	0, 0	IP IPP AV ED
7	Movement Disorders	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Movement disorders	0, 0	IP IPP AV ED
8	Mood Disorders	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Mood disorders	0, 0	IP IPP AV ED
9	Suicidal Thinking and Behavior	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Suicidal thinking and behavior	0, 0	IP IPP AV ED
10	Sleep Disturbance	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Sleep disturbance	0, 0	IP IPP AV ED
11	Hallucinations	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	Hallucinations	0, 0	IP IPP AV ED
12	Psychotropic Medications ¹	NA	0	Any	02	Montelukast, Zafirlukast, Inhaled Corticosteroids, or Nasal Corticosteroids	Include	-183, 0	Any	N/A	N/A	N/A

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, are provided by Optum360. National Drug Codes (NDC) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Characteristic care setting options include: IP = inpatient hospital stay, in any diagnosis position; IPP = inpatient hospital stay, in the principal diagnosis position; AV = ambulatory visit; ED = emergency department visit.

¹Psychotropic Medications include: Antianxiety Agents, Sedative Hypnotics, Antidepressants, Antipsychotics, ADHD Agents, Mood Stabilizing Agents. Note that this will include only outpatient dispensings.