

ASSOCIATION BETWEEN THE AFFORDABLE CARE ACT AND
EMERGENCY DEPARTMENT ADMISSION BY PSYCHIATRIC PATIENTS

by

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ABSTRACT

AFSANEH ASGHARIAN. Association Between the Affordable Care Act and Emergency Department Admission by Psychiatric Patients (Under the direction of DR. YVETTE M. HUET)

This was a cross-sectional study to evaluate the association between the Affordable Care Act (ACA) and the emergency department (ED) admission by psychiatric patients, characteristics of psychiatric patients admitted to ED, and the ED visits with the disposition of Treat-and-Release of psychiatric patients admitted to the ED for adults aged 18-64.

Methods

The National Emergency Department Sample database for the years 2009 (Pre-ACA), and 2011 to 2016 (Post-ACA) were selected. The psychiatric-related ED visits were identified as the ED visits with at least one diagnosis code of the Behavioral and Mental Health disorders with code of either 290 to 319 or F01 to F99 for the International Classification of Disease edition 9 or 10, respectively. The statistical analysis was using logistic regression adjusting for covariates, age, sex, payer and hospital region. For each analysis, odds ratio (OR) and 95% confidence interval and statistical significance using χ^2 statistics were reported. For statistical analysis, all tests were two-sided with significance interpreted at $\alpha = 0.05$. The SAS software version 9.4 was used for all analyses.

Results

The proportion of psychiatric-related ED visits increased from Pre-ACA (24.1%) to Post-ACA years (26.4% to 31.3%). The adjusted analyses of the proportion of psychiatric-related ED visits were statistically significant for each of Post-ACA years versus Pre-ACA, with the ORs increasing from 1.12 to 1.36. The proportion of

psychiatric-related ED visits with the disposition of Treat-and-Release increased from Pre-ACA (73.4%) to Post-ACA years (72.5% to 78.9%). The adjusted analyses of the proportion of ED visits with Treat-and-Release disposition were statistically significant for each Post-ACA years versus Pre-ACA, with ORs increasing over time from 1.17 to 1.54 with the exception of 2015 with OR of 1.03. The proportions of psychiatric-related ED visits were the highest for adults aged 26-49 followed by adults aged 50-64 and 18-25; higher for females than males and higher for urban than rural hospitals. It increased for Medicare, Medicaid, and private and decreased for uninsured payers in Post-ACA 2014 to 2016 compared to Pre-ACA 2009.

Conclusion

This study demonstrated an association in the proportion of ED visits for patients with a psychiatric condition admitted to the ED and the ACA as well as an association between the ACA and the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release. There was evidence of an association between the ACA and the characteristics of psychiatric patients admitted to ED. After the full implementation of the ACA, from Post-ACA 2014 to 2016, there were increases in Medicare and private payers and a significant increase in Medicaid and a decrease in uninsured payers.

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DEDICATION

To my family, Abbas, Negeen, Ali, and Monica, for their love and encouragement.

To the loving memory of my father and Daisy.

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LIST OF ABBREVIATIONS

| | |
|-----------|---|
| AAEM | American Academy of Emergency Medicine |
| ACA | Affordable Care Act |
| ACEP | American College of Emergency Physicians |
| AHRQ | Agency for Healthcare Research and Quality |
| CDC | Centers for Disease Control and Prevention |
| CI | Confidence Interval |
| CIU | Crisis Intervention Unit |
| CMHC | Community Mental Health Centers |
| DHHS | Department of Health and Human Services |
| DSM-IV | Diagnostic and Statistical Manual of Mental Disorders 4th edition |
| ED | Emergency Department |
| EHBs | Essential Health Benefits |
| EMTALA | Emergency Medical Treatment and Active Labor Act |
| HCUP | Healthcare Cost and Utilization Project |
| ICD | International Classification of Disease |
| ICD-9-CM | International Classification of Disease, edition 9 |
| ICD-10-CM | International Classification of Disease, edition 10 |
| MAPIT | AHRQ tool for conversion of ICD9 to ICD10 |
| MDE | Major Depressive Episode |
| NHAMCS | National Hospital Ambulatory Medical Care Survey |
| MHPA | Mental Health Parity Act |
| MHPAEA | Mental Health Parity and Addiction Equity Act |
| MINI | Mini International Neuropsychiatric Interview |

| | |
|-------|--|
| NCS-A | National Comorbidity survey of adolescents |
| NCS-R | National Comorbidity Survey Replication |
| NEDS | National Emergency Department Sample |
| NHDS | National Hospital Discharge Survey |
| NSDUH | National Survey on Drug Use and Health |
| OR | Odds Ratio |
| PCMH | Patient-Centered Medical Home |
| PCP | Primary Care Physician |
| SAS | SAS Institute Software |
| U.S. | United States |

1 INTRODUCTION

1.1 Mental Disorders

1.1.1 Mental Disorders in Adults

Mental disorders are common in the United States (U.S.). In the National Comorbidity Survey Replication (NCS-R) between 2001 and 2003, approximately 26% of adults in the U.S. had any mental disorder (anxiety, mood, impulse control, and substance use disorders) and 22.3% of adults with any mental disorders had serious mental disorders.¹ In the 2004 Centers for Disease Control and Prevention (CDC) survey, 25% of U.S. adults had any mental disorder in the past year.² Nearly 50% of U.S. adults develop at least one mental disorder in their lifetime with the first onset, usually in childhood or adolescence.³ In the 2017 National Survey on Drug Use and Health (NSDUH) an estimated 46.6 million (18.9%) of all U.S. adults (aged ≥ 18 years) had any type of mental disorder, and 11.2 million (4.5%) adults had a serious mental disorders within the past year. The NSDUH survey defined any mental disorder based on the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) criteria. It did not include developmental and substance use disorders as diagnosable mental disorders. In the 2017 NSDUH, 7.1% (17.3 million) adults aged 18 or older had at least one major depressive episode (MDE) in the past year, and 4.5% (11.0 million) of adults had an MDE with severe impairment which was equivalent to 63.8% of adults with MDE in the last year with severe impairment.⁴

The 2017 NSDUH survey reported that the prevalence of any mental disorders was higher among women (women: 22.3%, men: 15.1%), as were serious mental disorders (women: 5.7%, men: 3.3%). Young adults aged 18-25 had a higher prevalence

of any mental disorders than older adults (18-25 years: 25.8%, 26-49: 22.2%, ≥ 50 : 13.8%), and also higher serious mental disorders than older adults (18-25 years: 7.5%, 26-49: 5.6%, ≥ 50 : 2.7%).⁴ The prevalence of adults with any mental disorders by race was the highest for two or more races with 28.6% compared to white adults: 20.4%, black adults: 16.2%, Hispanic adults: 15.2%, Asian adults: 14.5%, Native Hawaiian/other Pacific Islander adults: 19.4%, and American Indian/Alaskan Native adults: 18.9%. Serious mental illness was highest for those of two or more races and lowest for Asians (white: 5.2%, black: 3.5%, Hispanic: 3.2%, Asian: 2.4%, Native Hawaiian/other Pacific Islander: 4.8%, American Indian/Alaskan Native: 5.1%, and Two or more races: 8.1%).⁵

The 2017 NSDUH survey data showed that among adults with any mental disorders, 42.6% (19.8 million of 46.6 million) received mental health services in the past year, and more women received treatment compared to men (47.6% vs. 34.8%). In addition, the percentage of young adults who received treatment was lower than older adults, 18-25 years: 38.4%, 26-49: 43.3% and ≥ 50 years: 44.2%.⁴ The prevalence of adults with mental disorders receiving mental health services by race was from highest to lowest, white: 48.0%, two or more races: 38.4%, Hispanic: 32.6%, black: 30.6%, and Asian: 20.2%.⁵ Among adults with serious mental disorders, 66.7% (7.5 million of 11.2 million) received mental health services in the past year; more women received treatment compared to men (71.5% vs. 57.7%); and the percentage of young adults who received treatment was lower than older adults, 18-25 years: 57.4%, 26-49: 66.2% and ≥ 50 years: 75.6%.⁴ The prevalence of adults with serious mental illness who received mental health services by race was white: 70.7%, black: 56.2%, and Hispanic: 56.0%.⁵

1.1.2 Mental Disorders in Adolescents and Children

In the 2001-2004 National Comorbidity survey of adolescents aged 13-18 (NCS-A), the lifetime prevalence of any mental disorders for adolescents was estimated to be 49.5%.⁶ In the 2017 NSDUH survey, 14.8% (3.6 million) of adolescents aged 12-17 received mental health services in the past year for emotional or behavioral problems.⁴

Approximately 22.2% of adolescents with any mental disorders, including substance use disorders, had severe impairment using the DSMV-IV criteria of impairment level.⁶ The lifetime prevalence of adolescents with any mental disorder was higher for females than males (51.0% vs. 48.1%), and higher for adolescents aged 17-18 (56.7%), followed by those aged 15-16 (49.3%) and those aged 13-14 (45.3%).⁶ In the 2017 NSDUH survey, 13.3% (3.2 million) of adolescents aged 12-17 had a MDE in the past year and among adolescents with MDE, 9.4% (2.3 million) of adolescents had severe impairment in the past year.⁴ This represents more than 70% of adolescents with severe impairment of MDE. In the 2007 National Survey of Children's Health, the prevalence of children aged 3-17 who had ever received a diagnosis of behavioral or conduct problems was higher for males than females (male: 6.2%, female: 3.0%). In this survey, the prevalence of ever having received a diagnosis of behavioral or conduct problems by race was higher for blacks than other races, white: 4.2%, black: 8.1%, Hispanic: 3.9%, multi-race: 4.8%, and other: 2.6%.⁷ Since this survey was conducted by interviewing the mother (biological, stepmother, foster or adoptive mother) via telephone, the response to ever having received a diagnosis of behavioral or conduct problems may not represent a prior psychiatric diagnosis.

1.1.3 Economic burden

The economic burden of mental disorders is high for both adults and children. It was estimated to be at least \$300 billion in 2002 for adults with mental disorders.⁸ In 2010, the estimated cost of major depressive disorders for adults was \$210.5 billion with comorbid conditions a key contributor to this cost.⁹ In the 2011 Medical Expenditure Panel Survey of Households, the cost of mental disorders in children aged 0-17 was \$13.8 billion for 5.6 million children.¹⁰

1.2 History of Psychiatric Care

1.2.1 Deinstitutionalization of Psychiatric Services

In 1930s and early 1940s, those patients with severe mental illness were hospitalized in the states mental hospitals.¹¹ In 1946, the National Mental Health Act was signed into law by president Harry Truman, which led to the establishment of the National Institute of Mental Health in 1947.¹² In 1950s, most of states had community outpatient clinics for mentally ill patients. Marketing of pharmacological treatments for psychiatric patients began at this time, with the first psychiatric medication in 1954 and two antidepressant medications in 1956.¹¹ In 1960s, social concerns about the civil rights of patients with severe mental illness led to the Community Mental Health Centers (CMHC) Act law, signed on October 31, 1963, by President Kennedy.^{11,13} The intention of this law was to replace the state mental health hospital with CMHCs for patients with serious mental illness. This practice was referred to as deinstitutionalization. The funding of CMHC initially came from Federal funds but afterward state and local communities had to continue funding the CMHCs. The law required that eligibility criteria for Federal funding of CMHCs included to provide at least 5 essential services. These essential services were “inpatient, outpatient, partial

hospitalization, emergency and the least well defined, consultation and education; serve a ‘catchment’ area of no less than 75 000 and no more than 200 000 people (what would become a controversial issue); ensure continuity of care between the services; be accessible to the population to be served; serve people regardless of their ability or inability to pay”.¹³

1.2.2 Impact of Deinstitutionalization

For some patients with serious mental illness requiring short-term inpatient or outpatient treatment setting, the CMHCs were found to be beneficial when compared to being hospitalized in the psychiatric hospitals. However, for patients with serious mental illness who require 24-hour care, there were no long-term hospital beds in the CMHCs, and instead, they ended up in jail or on the street.¹⁴ Deinstitutionalization led to a reduction in hospital beds for psychiatric patients. In 2003, the Subcommittee on Acute Care to the President's New Freedom Commission reported that since 1970, the total number of inpatient psychiatric beds per capita and the state and county psychiatric beds per capita declined by 62% and 89%, respectively.¹⁵

1.2.3 Mental Health Parity Act

There were two major legislative bills that have led to mental health treatment payment changes. The first was the Mental Health Parity Act (MHPA) of 1996 which was then superseded by the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA). The mental health parity law refers to health insurance benefits for mental illness being equal to that of medical and surgical health care.¹⁶ Sarata¹⁶ stated that mental health parity refers to “the concept that health insurance coverage for mental health services should be offered on par with covered medical and surgical benefits.” Prior to the 1996 mental health parity law, health

insurance had no coverage or minimal coverage for certain mental illnesses including lower annual or lifetime limits, limited treatment and hospital stays, and higher cost-sharing relative to medical and surgical benefits. The MHPA of 1996 mandated partial parity with annual and aggregate cost limits for mental health services to be no less than physical and surgical plans under the group health plans. Under this law, parity coverage also applied to the Employee Retirement Income Security Act, the Public Health Service Act, and the Internal Revenue Code group health coverage but employers with 50 or less employees were exempted from this law. The MHPAEA of 2008 expanded the MHPA of 1996 by broadening the aggregate lifetime and annual limits, treatment limitations, financial requirements and in-network and out-of-network benefits coverage and removing the exemption for small employers.¹⁶

The ACA has several provisions that expand the application of Federal mental parity requirements and mandates coverage of mental health services for certain plans through specific financing arrangements. However, it did not modify the Federal mental health parity requirements.¹⁶

People living with mental disorders are a vulnerable group in our society. Mental disorders are often a negative stigma and those with mental disorders face discrimination in daily life in seeking to rent homes, apply for jobs, or even access mental health care.^{17,18} Acknowledging behavioral and psychiatric disorders through health policy, and mandating health care coverage may reduce the stigmatization of mental disorders. In addition, laws to overcome discrimination such as the Americans with Disabilities Act, enforcement of antidiscrimination laws for housing and employment, and educating communities about mental disorders may prevent stigmatization and discrimination of people with mental disorders.¹⁹

1.3 Emergency Department Admissions by Psychiatric Patients

1.3.1 Prevalence of ED use by psychiatric patients

It is clear from a variety of studies that the number of ED visits for which there were psychiatric-related conditions for adults has increased and according to the National Hospital Ambulatory Medical Care Survey (NHAMCS), from 1992 to 2000, psychiatric-related ED visits for adults increased by 15%. In the 2000 NHAMCS data, an estimated 4.3 million ED visits were psychiatric-related, for an annual rate of 21 per 1000 U.S. adults.²⁰ During the 2007-2008 surveys of national ambulatory medical care and NHAMCS, an estimated 47.8 million (5%) ambulatory care visits were for patients with a primary diagnosis of psychiatric disorder. In these surveys, women had higher ambulatory medical care visits than men (women: 29.4 million, men: 18.5 million). In the 2007 National Hospital Discharge Survey (NHDS), among patients discharged from non-Federal, short-stay hospitals, 97.9 discharged patients per 10,000 population adults aged 18–64 years had a primary diagnosis of a psychiatric disorder. In the 2007 NHDS, the primary diagnosis of a psychiatric disorder for adults increased by age, 231.4 per 10,000 discharged patients for adults 18-44, 371.1 per 10,000 patients for adults aged 45-64 and 650.8 per 10,000 patients for adults aged 65 or older.² In a population-based study in North Carolina using the state-wide public health surveillance system including ED visit data, the number of ED visits from 2008 to 2010 increased by 5.1%, and psychiatric-related ED visits increased by 17.7%. In 2010, psychiatric-related ED visits in North Carolina were about 9.3% of all ED visits, and 31.1% of psychiatric-related ED visits resulted in hospitalizations compared with 14.1% of all ED visits.²¹ In the 2007 National Emergency Department Survey (NEDS) data, 12.5% (12 million of 95 million) of ED visits for adults in the U.S. had a diagnosis of mental and/or substance

use disorder, and 4.1 million ED visits had a primary diagnosis of mental and/or substance use disorders. Among 12 million ED visits with mental or substance use disorders, the proportion of patients with mental disorders, substance use disorders or both conditions was 64%, 26% and 12%, respectively. Patients with mental and/or substance use disorders were 2.5 times more likely to have a hospital admission compared to all other ED visits.²²

From the 2006 to 2011 NEDS data of adults between 18 to 64 years of age, data demonstrated that ED visits increased by 8.6%, ED visits with primary psychiatric diagnosis increased by 20.5% and ED visits with psychiatric disorders comorbidities increased by 53.3%. In this study, the ED visits for adults with psychiatric disorders were higher for patients covered by Medicare and Medicaid than those who are privately insured or uninsured.²³ The 2016 NHAMCS presented data showing that nearly 5.5 million (3.8%) ED visits had a primary diagnosis of mental disorder.²⁴ In the 2010 to 2016 claims data of privately insured patients reported, at least 8.6 million (16.3%) patients across all ages had almost 16.4 million ED visits. Among patients with at least one ED visit with a diagnosis of mental or substance use disorders, they were more likely to have multiple ED visits.²⁵

1.4 Objectives

The objectives of this study were to evaluate the association between the ACA and ED admissions of psychiatric patients for Post-ACA years, 2011 to 2016 and Pre-ACA year 2009. These assessments included the ED admission of psychiatric patients, characteristics of psychiatric patients admitted to the ED, and the ED disposition of treat-and-release of psychiatric patients admitted to the ED. The characteristics of psychiatric patients analyzed were the categories of age (18-25, 26-49, 50-64),

sex/gender (male, female), payer (Medicare, Medicaid, private, uninsured), and region or hospital region (urban, rural). The population of interest was all adult patients aged 18 to 64 with psychiatric conditions admitted to ED.

The NEDS data for the years 2009 and 2011 to 2016 were used for Pre-ACA (2009) and Post-ACA years (2011 to 2016). This research allowed for assessments of the association between the ACA and ED admissions by psychiatric patients over time, as stated in section 1.5. Since the ACA was enacted on March 23, 2010 and the first provision of the ACA, the dependent coverage expansion, went into effect on September 1, 2010.²⁶ The 2010 NEDS did not contain discrete data for Pre-ACA, since the last quarter of 2010 was considered Post-ACA. Hence, the NEDS 2010 data could not be used in the comparisons of Post-ACA versus Pre-ACA data.

1.5 Aims

1.5.1 Specific Aim 1

Is there an association between the ACA and ED admission by psychiatric patients?

Null Hypothesis H_0 : There is no association between the ACA and ED admission by psychiatric patients.

Alternative Hypothesis H_A : There is an association between the ACA and ED admission by psychiatric patients.

1.5.2 Specific Aim 2

Is there an association between the ACA and characteristics (age category, sex/gender, payer, and region) of psychiatric patients admitted to the ED?

Null Hypothesis H_0 : There is no association between the ACA and characteristics (age category, sex/gender, payer, and region) of psychiatric patients admitted to the ED.

Alternative Hypothesis H_A : There is an association between the ACA and characteristics (age category, sex/gender, payer, and region) of psychiatric patients admitted to the ED.

1.5.3 Specific Aim 3

Is there an association between the ACA and the ED disposition of treat-and-release of psychiatric patients admitted to the ED?

Null Hypothesis H_0 : There is no association between the ACA and the ED disposition of treat-and-release of psychiatric patients admitted to ED.

Alternative Hypothesis H_A : There is an association between the ACA and the ED disposition of treat-and-release of psychiatric patients admitted to ED.

2 LITERATURE REVIEW

2.1 Emergency Department and psychiatric patients

2.1.1 Challenges of ED

Due to the Emergency Medical Treatment and Active Labor Act (EMTALA), all Medicare-participating hospitals are required to accept all patients who come to the Emergency Department (ED) for medical care regardless of the patient's ability to pay. EDs must provide an appropriate medical screening exam, treat and stabilize patients' emergency medical conditions prior to releasing or transferring the patients.²⁷ Thus to be in compliance with this law, EDs participating in Medicare are required to treat psychiatric patients who seek care.

Since psychiatric care has become deinstitutionalized, the care of psychiatric patients has shifted from inpatient care to outpatient facilities and community hospitals. With increasing numbers of psychiatric patients and limited availability or access to outpatient mental health care facilities, psychiatric patients turn to EDs for their health care.²⁸ Psychiatric patients are confronted with reduced medical, social, and psychiatric services, which results in frequent ED visits, boarding in the ED and occupying ED beds for a long period of time, and longer waiting times.¹⁵ Boarding psychiatric patients in the ED, keeping them for an inpatient admission or transfer to other facilities has become a problem for the ED. It contributes to the overcrowding of EDs, poor quality of care for psychiatric and non-psychiatric patients, and a shortage of ED beds for medical emergencies.^{15,28} Government agencies, including the Department of Health and Human Services (DHHS), have recognized that there is a mismatch between the supply and the demand for psychiatric care. The DHHS acknowledged the problem of

psychiatric patients being boarded in the ED mainly due to insufficient short-term hospital beds and the agency recommended the need for shared responsibility between mental health facilities and EDs to manage the care of psychiatric patients.²⁸ In interviews with ED physicians, nurses and psychiatrists, the reasons for psychiatric boarding were stated as the lack of inpatient beds, the need for insurance pre-authorization for admission, difficulty in finding placement services for the transfer of patients and the lack of outpatient and community resources for psychiatric patients. All of these factors are underly the current crisis of the mental health system.²⁹ The American College of Emergency Physicians (ACEP) has developed a reference document to address the challenges of managing psychiatric patients in the ED. They focused on the evaluation, medical clearance, boarding, and medical management of psychiatric patients in the ED as well as disposition of psychiatric patients from the ED, best practices for reducing ED boarding of psychiatric patients and community resources for emergency psychiatric patients.²⁸

The EDs are prepared for patients with medical emergencies and continue to improve the care of these patients. EDs however, do not adequately address the needs of psychiatric patients. Patient care surveys evaluate only the patient care experience of non-psychiatric patients in the ED but the care of psychiatric patients is different from non-psychiatric patients.³⁰ In a survey of psychiatric patients, they communicated a desire to be treated with respect by healthcare staff, to have these staff talk and listen to them, to be involved in determining the treatment approach to be used, including use of oral medications and to be asked about their medication experiences and preferences.³¹ For psychiatric patients, the negative attitudes and inadequate training in emergency psychiatry of emergency department physicians and the ED nurses that may negatively impact the patients' outcomes. The ED personnel attitudes toward psychiatric patients

may come from lack of ED guidelines, inadequate educational preparation, lack of confidence in their treatment, and safety concerns.³⁰ The ED physicians face the challenge of medical clearance and evaluation of psychiatric patients and the disposition of psychiatric patients from the ED.²⁸ In response to the increased number of psychiatric patients who present to the ED, the American Academy of Emergency Medicine (AAEM) has released position statements for psychiatric patients. In the position statement for the emergency treatment and discharge of patients with psychiatric illness, AAEM suggested all EDs discharge psychiatric patients under safe conditions, and encourage communities to establish effective options to avoid future psychiatric-related ED visits. In another AAEM position statement, AAEM stated that “ED boarding is a poor option for the psychiatric patients as it compromises their comfort, privacy, and medical and psychiatric care”. AAEM encouraged that “the psychiatric services at each hospital to be involved in the management of psychiatric patients who boarded in the ED”. AAEM recommended that “hospitals, health care institutions and community mental health resources to seek alternative options other than ED boarding to hold psychiatric patients awaiting hospitalization or transfer to an appropriate facility”. AAEM also had a position statement stating that the routine laboratory testing of psychiatric patients in the ED should be clinically and individually based upon the patient’s evaluation.³²

The medical treatment of psychiatric disorders in the ED is complex, even for patients with acute psychiatric conditions.²⁸ Psychiatric patients in the ED typically have acute psychiatric conditions, and they often have to board in the ED for up to a week or longer to ensure no complication with their treatment.^{28,33} Despite inadequate training in emergency psychiatry, ED physicians must treat psychiatric patients and determine whether they should be admitted to the hospital.^{29,30} ED physicians have to

diagnose psychiatric patients who may be at risk of homicide or suicide and determine the disposition of these patients from the ED. The EDs typically have a triage process for patients with medical emergencies and need to have a triage process for psychiatric patients.³⁰ A survey of psychiatric patients with ED experiences had unpleasant experiences with their ED visits and suggested EDs use peer support services, improve discharge planning, and the triage process, reduce wait time for treatment, and provide more privacy.^{30,31}

DHHS recommended having a psychiatrist available at the ED, live or via telemedicine, to initiate treatment regimens.²⁹ Since the treatment of psychiatric patients requires follow up, inpatient hospitalization or long-term care, the EDs are not appropriate for treatment of these patients. For example, pharmacological treatment of patients with depression may be to prescribe a first- or second-generation antidepressant. However, these anti-depressants have slow mechanisms of action; patients have to be monitored for adverse events including screening for suicide threats.²⁸

2.1.2 Reasons for ED visits

One reason for psychiatric patients presenting to ED may be due to a lack of access to health care. In a survey of psychiatric patients with ED experience, 20% of patients indicated that the lack of access to routine mental health care was the reason for ED visits.³¹ In one study of patients with psychiatric conditions presented to the ED, 55% of patients had a primary care physician (PCP), 42% did not have a PCP, and 3% were unknown. Psychiatric patients with PCP that were referred to the ED by their PCP or social worker, had more prior hospitalizations, used the ED more in the past year, and had higher numbers of psychiatric evaluations in the past 2 years. Among patients

with no PCP, they were either self-referred to the ED or were referred by a family member or the police. These patients had fewer prior hospitalizations; used the ED less in the past year, and had fewer psychiatric evaluations in the past 2 years.³⁴ Although this study was conducted in an urban, Level I pediatric and adult trauma center with a convenient sample of 294 psychiatric patients, the results cannot be generalized. Nevertheless, it raises an issue that the PCP may not be an optimal resource for psychiatric care.

Another group of patients with psychiatric conditions presenting to the ED are patients with medical conditions, they have either a comorbid condition(s) with mental disorder(s) or undiagnosed mental disorder(s).^{23,35} In a study with 211 adult patients that presented to the ED with non-psychiatric related conditions 45% of patients scored for mental disorder who had no history of mental illness using the Mini International Neuropsychiatric Interview (MINI) test, and the top diagnoses were depression (24%), anxiety (9%), and drug abuse (8%). Among patients that tested positive using the MINI test, 2% were diagnosed with mental illness by the ED physician.³⁵ This was a small study and the diagnosis of patients with positive MINI tests were not confirmed by a psychiatrist. However, ED visits may present an opportunity to identify undiagnosed psychiatric disorders, especially among patients with medical conditions.

In a qualitative study, 20 adult patients with mental illness and/or substance use disorders who had frequent ED visits were interviewed and asked about their ED experiences. These patients had acute and chronic mental and physical health conditions and described their ED visits as unavoidable and an appropriate place for their illness. They felt stigmatized and discriminated against by ED staff, received unsympathetic care and were discharged without anticipated treatment. Despite having

negative experiences with ED, these patients continued to return to the ED for treatment.³⁶

A population-based, case-control study showed that suicide decedents had a significantly higher number of total mental health-related ED visits within the last year before death, and were more likely to have psychiatric diagnoses in the previous year.³⁷ In a 3-year study of state-wide Kentucky outpatient services data, of decedents who died by suicide or homicide, 10.7% of those that died by suicide and 8.3% of those that died by homicide had ED visits within 6 weeks prior to their death. The decedents who died by suicide were more likely to have depressive, anxiety and/or substance use disorders and those who died by homicide were more likely to have substance use disorder.³⁸ In a population-based case-control study, the number of ED visits was a risk factor for suicide, and the risk of suicide increased as the number of ED visits increased.³⁹

2.1.3 Common Psychiatric Diagnosis

Multiple studies have looked at the more prevalent psychiatric diagnoses in the ED. In the 2000 NHMACS Survey, the most common mental disorders among adults treated in the ED were alcohol and drug-related conditions followed by neurotic conditions. In this study of patients with substance use disorder, 18% had at least one other psychiatric disorder.²⁰ Among adults with psychiatric diagnoses, one study that used the 2006-2007 National Health Access Survey data reported the most common psychiatric diagnoses in ED as depression (25%), personality disorders (20%), bipolar disorder (15%), and schizophrenia (13%).³⁴ In the study using the 2007 CDC NHDS survey, among patients aged 18–64 years with primary diagnosis of mental illness, the most common psychiatric disorders were mood disorders followed by alcohol and

substance use. In the 2007-2008 CDC ambulatory care services surveys of adults, with mental disorders visits, depressive disorder had the highest prevalence (31%) followed by schizophrenia and other psychotic disorders (23%). The proportion of ED visits were higher for the alcohol and drug use substance use disorder than for other mental disorders.² The 2007 NEDS data showed that the most common psychiatric-related ED visits among adults were mood disorder (42.7%), anxiety (26.1%), alcohol-related (22.9%), drug-related (17.6%), schizophrenia and other psychoses (9.9%) and intentional self-harm (6.6%). This survey showed the combined alcohol- and drug-related conditions, namely substance use disorder, is one of the top 2 most common psychiatric disorders.²² In the 2010 North Carolina population-based study of the mental illness-related ED visits, the most common diagnoses were combined depression, anxiety, and stress disorders which accounted for 62.3% of ED visits followed by combined schizophrenia, delusional, and psychosis disorders for 19.5% of ED visits.²¹ In this study, substance use disorders were excluded as a mental disorder.

In a study of the population aged 15 years or older between 2006 and 2013, the rate of individuals (number of ED visits per 100,000) with psychiatric disorders increased 37% for substance use disorders, increased 55.5% for depression, anxiety or stress reactions disorders and increased 52.0% for psychoses and bipolar disorders. In 2013, the rate of ED visits with substance use disorders was higher for males than females (males: 3,346 per 100,000; females: 1,733 per 100,000). The rate of ED visits was higher for females than males for depression, anxiety or stress reactions disorders (males: 2,854 per 100,000; females: 4,981 per 100,000) and psychoses and bipolar disorders (males: 1,342 per 100,000; females: 1,426 per 100,000). From 2006 to 2013, the rate of ED visits for substance use disorders; depression, anxiety or stress reactions

disorders and psychoses and bipolar disorders increased for adults aged 18-44, 45-64 and 65 or older.⁴⁰

Hashmi et al.,⁴¹ indicated that the most common mental disorders in EDs are patients with substance use disorders followed by patients with suicidal ideation, attempted suicide, psychosis, and anxiety disorders. The authors stated that among patients with substance use disorders, abuse of drugs such as alcohol, marijuana, and cocaine are common but there are new drugs referred to as “designer” drugs, which are difficult to detect.⁴¹ In 2014, the American College of Emergency Physicians stated that psychiatric-related ED admissions are typically for acute psychiatric disorders, substance use disorders, and comorbid medical conditions which can be managed in an outpatient setting.²⁸

2.2 The Affordable Care Act and Access to Healthcare

The Patient Protection and Affordable Care Act (PPACA) or the Affordable Care Act (ACA) was signed into law on March 23, 2010, by President Obama. The ACA was designed to improve access, affordability, and quality of healthcare. The first provision of ACA was the dependent coverage, which allowed young adults aged 18-25 to stay on a parent’s health plan and went into effect in 2010.²⁶ The ACA identified ten categories of services and items included in essential health benefits (EHBs) that all insurance companies must cover as of January 1, 2014. Among the ten EHBs, ambulatory and emergency services; hospitalization; mental health and substance use disorder services, including behavioral health treatment and prescription drugs were included.⁴² The ACA focused on improving access and quality of health care using payment reform strategies.^{26,43} McClelland et al.,⁴³ stated that “In the ACA, hospital-based emergency departments (EDs) are referenced as places to be avoided and

reduced; no new payment models focus on ED care, and there are no plans to broadly address ED-specific quality through new measurement programs.“ In a National Health Interview Survey of adults from 2004 through 2009 found that ED use was higher among newly insured adults compared to continuously insured adults.⁴⁴

With enactment of the ACA, there are more people insured through the private insurance market place combined with financial assistance for low- to moderate-income and the Medicaid expansion program in the participating states.²⁶ The uninsured individuals of all ages declined from 48.6 million (16.0%) in 2010 to 36.0 million (11.5%) in 2014 and 28.6 million (9.1%) in 2015, a percentage reduction of 43% from 2010 to 2015. For adults aged 18–64 years, the number of uninsured adults declined from 42.5 million (22.3%) in 2010 to 31.7 million (16.3%) in 2014 and to 25.1 million (12.8%) in 2015, a percentage reduction of 41% from 2010 to 2015.⁴⁵ The percentage of uninsured adults aged 18-64 declined by 43.6% (17.7 million) from October 2013 through the end of first quarter of 2016, from 20.4% in Q4 2013 to 11.5% in Q1 2016.⁴⁶ Based on the National Health Interview Survey from January 2010 to December 2018, the percentages of uninsured nonelderly adults, aged 18-64 were 22.3% in 2010, 12.6% in 2016 and 13.3% in 2018, a percent reduction of 44% from 2010 to 2016 and a reduction of 41% from 2010 to 2018.⁴⁷

Several studies evaluated the effect of the ACA and/or Medicaid expansion on ED visits with varied results. In a study of the Illinois health insurance expansion, average monthly ED visits for adults aged 18 to 64, from Pre-ACA (2011 to 2013) to Post-ACA (2014 to 2015), increased by 5.7% but the average monthly hospitalizations were unchanged. In this study, average monthly ED visits of the uninsured decreased by 42.4%, Medicaid ED visits increased by 41.9%, and privately insured ED visits increased by 10.2%.⁴⁸ In a study of the early adoption of Medicaid expansion, in

California, under the ACA, there was no significant change in the overall number of ED visits, an increase in ED visits by those insured by Medicaid, and a decrease in uninsured ED visits.⁴⁹ In 2008, Oregon initiated a limited Medicaid expansion program for uninsured low-income adults aged 18-64 using a lottery system. In an Oregon Health insurance study using survey data from the lottery list and Oregon Health Plan ED visit data from 2008 to 2009, they found that there was a significant increase in ED visits for all types of conditions and subgroups, including non-emergency conditions, that could be treated in a primary care setting.⁵⁰ In one study of the Massachusetts Health Care Reform of 2006, similar to the ACA, ED visits declined by 5% to 8%, mainly a reduction of non-emergency visits.⁵¹ These studies varied in study design, size, types of data, and analysis methodology, which perhaps led to a mixed conclusion.

Several studies reported the effect of the ACA's, including the Act's dependent coverage provision on ED use. The dependent coverage expansion allowed young adults aged 19-25 to stay on a parent's health insurance until age 26.²⁶ An estimated 2.3 million young adults aged ages 19 to 25 were insured from October 2013 through the first quarter of 2016.⁴⁶ In one study using the NEDS data from 2007 to 2011, the ED use among young adults aged 19-25 years compared to older adults aged 27 to 29 (control group) showed that the overall ED visits declined for the young adults from Pre-ACA (2007 to 2009) to Post-ACA (2011). Still, psychiatric-related ED visits for the younger adults increased Post-ACA.⁵² In another study of ED visits from California, Florida, and New York using the administrative claims data from 2009 to 2011, the overall ED visits among young adults aged 19-25 years compared to older adults aged 26 to 31 (control group) decreased for the young adults from Pre-ACA (2009) to Post-ACA (2011), but psychiatric-related ED visits for the young adults increased Post-ACA.⁵³ In a study of California inpatient admissions and ED data from

2005 to 2011, it was found that the ACA dependent coverage was associated with an increase in the inpatient admissions and a decrease in ED admissions for young adults (19-25 years) with psychiatric diagnoses compared to the control group (26-29 years) with psychiatric diagnoses.⁵⁴ In one study using California state emergency data from 2009 to 2011, the effect of the ACA dependent provision on the psychiatric-related ED visits from Pre-ACA (January 2009 through August 2010) to Post-ACA (January through December 2011) showed fewer ED visits for young adults aged 19 to 25 compared to adults aged 27-31. This decrease was true for all race groups except Hispanics and Asian/Pacific Islanders.⁵⁵ These studies varied in study design, size and types of data, control age group (27-29, 26-29, 26-31 years) and analysis methodology, which perhaps led to mixed conclusions.

Several studies evaluated the effect of the ACA Medicaid Expansion on ED visits. In one study comparing 14 states with Medicaid expansion and 11 states with no expansion in 2014 found that the total ED use per 1000 population increased by 2.5 visits in states with Medicaid expansion compared to non-expansion states and the ACA's Medicaid expansion changed ED payer mix and increased ED use. In states with Medicaid expansion, the ED visits covered by Medicaid increased by 8.8% and the uninsured ED visits decreased by 5.3%.⁵⁶ A study using the data from Maryland's Health Services Cost Review Commission for two time periods, Pre-ACA (July 2012–December 2013) and Post-ACA (July 2014–December 2015) found that between Pre-ACA and Post-ACA, the total number of ED visits declined by 1.2%, ED visits with Medicaid insurers increased by 5.6% (Pre-ACA: 23.3%, Post-ACA:28.9%), and uninsured ED visits decreased by 5.9% (Pre-ACA: 16.3%, Post-ACA:10.4%). Among patients who were uninsured in the Pre-ACA, those with Medicaid in the Post-ACA had an estimated 2.38 visits in the Post-ACA and those who remained uninsured had

an estimated 1.66 visits in the Post-ACA. This study did not find a relationship between Medicaid expansion and the total number of ED visits.⁵⁷

2.3 Access to Mental Health Services

2.3.1 Mental Health Services

ED admission of psychiatric patients and the boarding of psychiatric patients in the ED are problems facing the EDs and psychiatric patients. In a study in nine hospitals, interviews with a small group of ED physicians, nurses, on-call psychiatrists and community mental health stakeholders were conducted to understand the psychiatric boarding problems. They found that hospitals with a psychiatric emergency services model provided better diagnosis and treatment of psychiatric patients with a consultant psychiatrist and a strong collaboration with the community health care. In a 2008 survey of ED and psychiatric healthcare professionals, the participants shared their experiences with boarding the psychiatric patients in ED and suggested a short-term and long-term solution for psychiatric patients admitted to ED and to relieve the psychiatric boarding issue. Their short-term solutions were to increase staffing and the number of social workers to care for psychiatric patients; identify psychiatric patients with frequent ED visits to ensure their follow-up care, including adherence to medications, and appointment with outpatient facilities; a boarding location within the hospital dedicated for psychiatric patients; improved training and education for ED staff to enhance screening and psychiatric evaluations of psychiatric patients; having a psychiatrist involved in the psychiatric evaluations; improve scheduling and the discharging process of patients and improve collaboration with community and outpatient facilities to discharge patients properly and ensure follow up psychiatric care. Their long-term solutions included increasing outpatient and community facilities for

psychiatric patients; creating a separate psychiatric and behavioral health unit within the general hospital to ensure psychiatric patients receive care from mental health professionals while boarding; increasing inpatient beds for psychiatric patients; regionalizing patients' care across hospitals; innovate patients' psychiatric care through telepsychiatry, and psychiatrists as hospitalists; eliminating out-of-network insurance issues that may increase options for inpatient care; and improving or reforming the state health departments and communities mental health system and ultimately improving access to mental health services and quality of care .²⁹

2.3.2 Integrated Health Care

The idea of integrated healthcare through the co-location and/or integration of primary care and mental health services would be beneficial for patients with psychiatric conditions. The co-location refers to the physical location and integration to the coordination of primary care and mental health provider care. A cohort study of veterans with chronic medical conditions and serious mental illness in a co-located and integrated primary care clinic and outpatient mental health services found that the co-location reduced some barriers of delivering care and the integration of care resulted in high quality care for patients and improved both the physical and the mental health outcomes while reducing ED visits.⁵⁸ In the State of Georgia, an integrated emergency care model was designed and piloted through a strategic partnership between Grady Health System and the Department of Psychiatry at Morehouse School of Medicine to improve access, quality, and the cost of healthcare in the ED for patients with psychiatric disorders. The ED data from the pre-intervention period (January 2011 to August 2011) and the post-intervention period (September 2011 to May 2012) were analyzed and demonstrated improvements in the quality metrics, reduction in the time

to triage, the time from disposition to discharge, and the psychiatric length of stay and ensured psychiatric patients receive mental health treatment. They indicated that integrated the emergency care model improved the overall emergency department's productivity and patients' outcomes.⁵⁹ In 1992, the State of Minnesota was faced with an increasing number of psychiatric patients with frequent visits to ED and with inadequate psychiatric care and increased number of insurance denials. The State improved the communication and the relationships between the ED and the crisis intervention unit (CIU) and implemented a psychiatric triage with CIU who were psychiatrists, trained psychiatric nurses and social workers. This led to an improvement in the quality of care for psychiatric patients, and a decrease in insurance denials.⁶⁰

2.3.3 Telepsychiatry

Telepsychiatry is an electronic communication method that provides clinical psychiatric care via video conferencing, phone call or electronic mail. Telepsychiatry improves access to psychiatric care in rural, suburban, and urban areas, and enables connecting psychiatrists to health care facilities. It requires internet access, limits face-to-face interactions and thus nonverbal communication, and may impact treatment outcomes and privacy.⁶¹ One study looked at the length of stay of psychiatric patients in the ED at an urban hospital and compared this to in-house psychiatric consultations with telepsychiatry. This study was a retrospective chart review of a 3-month period of ED psychiatric consultations of psychiatric patients with another 3-month period of telepsychiatry in the same ED. They found that telepsychiatry decreased the time for the psychiatric clearance and discharge of patients to their home, but there was no difference between telepsychiatry and psychiatric consultation with respect to the time to ED disposition for hospitalization, transfer to long-term psychiatric facilities or

continued observation.⁶² This study was a convenience sample of psychiatric patients in one hospital and patients' psychiatric diagnosis but the severity of illness were not considered in the assessment of length of stay to discharge. In addition, the effectiveness of telepsychiatry and face-to-face psychiatric evaluations and the patients' outcome and the follow-up in their care were not considered.

2.3.4 Peer Support

The Substance Abuse and Mental Health Services Administration (SAMHSA) defined peer support related to mental health services as “a range of activities and interactions between people who have shared similar experiences of being diagnosed with mental health conditions”. The peer support worker's role is to interact and connect with patients with mental illness to motivate, inspire, encourage them and support their recovery and share their experiences with recovery from their mental illness. The peer support role is a valuable addition to the mental health system.⁶³ The Mental Health America organization (MHA) offers training and national advanced certification programs for the peer support specialist.⁶⁴

A qualitative study assessed the challenges and opportunities of the peer support services and non-peer mental health workers in the community mental health setting. The peer and non-peer mental health workers were interviewed and shared their experiences of working together. The peer mental health workers expressed their experiences with the mental health organizations into three themes, job satisfaction referred to as role clarity and autonomy, peer acceptance as how they felt about being part of the team and organization, and professional enhancements as professional advancement in their role within the mental health organizations. The non-peer mental health workers expressed their experiences into two categories, fidelity described as a

need for role clarity for peer support with a set of policy and procedures for peer services, and organizational culture and support indicated as leadership support, peer training and team building activities to integrate peer support into the organization.⁶⁵

In general, an effective integration of peer support into the mental health services would be beneficial for psychiatric patients as well as mental health providers.

3 METHODOLOGY

3.1 Study Design

This is a cross-sectional study to evaluate the association between the ACA and ED admission by psychiatric patients for the year 2009 (Pre-ACA) versus the years 2011 to 2016 (Post-ACA). These assessments consist of overtime evaluation of ED admission of psychiatric patients, characteristics of psychiatric patients admitted to ED, and ED visit disposition of psychiatric patients admitted to ED, treated and then released (treat-and-release). The population of interest is all adult patients aged 18 to 64 with psychiatric conditions admitted to ED.

3.2 Data Source

The NEDS database, one of the Healthcare Cost and Utilization Project (HCUP) databases, was selected for the analysis of endpoints. The HCUP is one the largest longitudinal hospital care database sponsored by the Agency for Healthcare Research and Quality (AHRQ) and developed through a Federal-State-Industry partnership from participating states in the United States. It is the largest all-payer emergency department database in the United States. It comprises approximately a 20% sample of hospital-based ED data from participating states using a stratified, random sampling design with five hospital characteristics as strata. The strata are geographic region, trauma center designation, urban-rural location, teaching status, and control. The geographic regions are categorized as Northeast, Midwest, West, or South. The trauma center designations are categorized as level I, II, & III trauma centers and teaching status are based on teaching or non-teaching. The control group is the public group which includes government or non-Federal insurer; voluntary group, such as private or not-for-profit insurer; and proprietary group such as private investor-owned/for-profit insurer. The

urban-rural designation is based on the county that the hospital is located and categorized as large and small metropolitan, micropolitan and non-urban for the remaining categories. The NEDS sample consists of over 950 hospital-based EDs data, with all visits from each selected ED. This resulted in more than 25 million unweighted observations in one-year of data.⁶⁶

The NEDS databases for years 2009, and 2011-2016 were selected for this study. All ED visits with at least one diagnosis were selected for all adult patients aged 18 to 64 and those with at least one psychiatric diagnosis were utilized for the analysis. The Behavioral and Mental Health disorders codes 290-319 for the International Classification of Disease (ICD) edition 9 (ICD-9) and F01-F99 for ICD-10 were used for selecting ED visits with at least one psychiatric diagnosis.^{67,68}

3.2.1 Data Elements and Derived Variables

All data elements in the NEDS databases for 2009-2016 are listed in Appendix A. The NEDs data elements or variables selected for the analysis are in Table 1.⁶⁶

Table 1: Selected NEDS Data Elements

| Variable | Description/Value (Value Description)/Data Source |
|-----------------|---|
| AGE | <p>Description: Age in years at admission</p> <p>Value:</p> <ul style="list-style-type: none"> • 0-124=Age in years • . =Missing • .A=Invalid • .B=Unavailable from source • .C=Inconsistent <p>Data Source: Core 2006-2016</p> |
| DXn | <p>Description: ICD-9-CM Diagnosis</p> <p>Value:</p> <ul style="list-style-type: none"> • annnn=Diagnosis code • Blank=Missing • invl=Invalid • incn=Inconsistent <p>Data Source: Core 2006-2015 Q3</p> |
| DXVER | <p>Description: Diagnosis codes ICD version indicator</p> <p>Value:</p> <ul style="list-style-type: none"> • 9=ICD-9-CM diagnoses • 10=ICD-10-CM diagnoses <p>Data Source: Core 2015-2016</p> |

Table 1: Selected NEDS Data Elements (Continued)

| Variable | Description/Value (Value Description)/Data Source |
|-------------|--|
| EDEVENT | <p>Description: Type of ED event</p> <p>Value:</p> <ul style="list-style-type: none"> • 1= ED visit in which the patient is treated and released • 2= ED visit in which the patient is admitted to this same hospital • 3= ED visit in which the patient is transferred to another short-term hospital • 9= ED visit in which the patient died in the ED • 98= ED visit in which the patient is not admitted to this same hospital, destination unknown • 99= ED visit in which the patient is not admitted to this same hospital, discharged alive, destination unknown • .=Missing <p>Data Source: Core 2006-2016</p> |
| FEMALE | <p>Description: Indicator of sex</p> <p>Value:</p> <ul style="list-style-type: none"> • 0= Male • 1= Female • .= Missing • .A= Invalid • .C= Inconsistent <p>Data Source: Core 2006-2016</p> |
| HOSP_ED | <p>Description: HCUP ED hospital identifier</p> <p>Value:</p> <ul style="list-style-type: none"> • 5(n)= HCUP NEDS hospital identification number <p>Data Source: Core 2006-2016; Hospital 2006-2016; ED 2006-2016</p> |
| HOSP_URCAT4 | <p>Description: Hospital urban-rural designation</p> <p>Value:</p> <ul style="list-style-type: none"> • 1= Large metropolitan areas with at least 1 million residents • 2= Small metropolitan areas with less than 1 million residents • 3= Micropolitan areas • 4= Not metropolitan or micropolitan (non-urban residual) • 6= Collapsed category for any urban-rural location (only applicable to the NEDS, beginning in 2014) • 7= Collapsed category of small metropolitan and micropolitan, (only applicable to the NEDS, beginning in 2011) • 8= Metropolitan, collapsed category of large and small metropolitan • 9= Non-metropolitan, collapsed category of micropolitan and non-urban <p>Data Source: Hospital 2006-2016</p> |
| I10_DXn | <p>Description: ICD-10-CM Diagnosis</p> <p>Value:</p> <ul style="list-style-type: none"> • annnnn= Diagnosis code • Blank= Missing • invl=Invalid • incn=Inconsistent <p>Data Source: Supplemental ED Q4 2015; Core 2016</p> |
| KEY_ED | <p>Description: HCUP NEDS record identifier</p> <p>Value: 14(n)=HCUP NEDS record identifier</p> <p>Data Source: Core 2006-2016; Supplemental ED 2006-2016</p> |
| PAY1 | <p>Description: Expected primary payer, uniform</p> <p>Value:</p> <ul style="list-style-type: none"> • 1= Medicare • 2= Medicaid • 3= Private insurance • 4= Self-pay • 5= No charge • 6= Other • .= Missing • .A= Invalid • .B= Unavailable from source <p>Data Source: Core 2006-2016</p> |
| YEAR | <p>Calendar year (the discharge year)</p> <ul style="list-style-type: none"> • yyyy= 4-digit calendar year <p>Data Source: Core 2006-2016; Hospital 2006-2016</p> |

The derived variables with their description and coding scheme are listed in

Table 2.

Table 2: Derived Variables

| Variable | Description |
|----------|--|
| AGECAT | Age category <ul style="list-style-type: none"> • 0 = 0 ≤ age ≤ 17 • 1 = 18 ≤ age ≤ 64 • 2 = age ≥ 65 |
| AGEC | Age category <ul style="list-style-type: none"> • 1 = 18 ≤ age ≤ 25 • 2 = 26 ≤ age ≤ 49 • 3 = 50 ≤ age ≤ 64 |
| ETYPEC | ED Disposition category <ul style="list-style-type: none"> • 1 = Treat-and-Release (edevent=1) • 2 = Transferred/Admitted to Hospital (edevent =2, 3) • 3 = Other ((edevent =9, 98, 99) |
| HURC | Hospital region (urban/rural) category <ul style="list-style-type: none"> • 1 = Urban (hosp_urcat4=1, 2, 3, 7, 8) • 2 = Rural (hosp_urcat4= 4, 6, 9) |
| NUMDX | Total number of non-missing diagnosis, where DXn = ICD-9-CM or I10_DXn= ICD-10 Diagnosis |
| NUMPD | Total number of psychiatric diagnosis DXn Diagnosis with ICD-9-CM codes from 290 to 319 or I10_DXn diagnosis with ICD-10 codes from F01 to F99. |
| PAYERC | Primary payer <ul style="list-style-type: none"> • 1= Medicare (pay1=1) • 2= Medicaid (pay1=2) • 3= Private (Pay1=3) • 4= Uninsured (pay1=4, 5, 6) |
| Sex | 0 = Male 1 = Female |

The NEDS data is ED visit level discharge data. For each ED visit, the diagnosis or, disease conditions are up to fifteen diagnoses for the 2009 and 2011 to 2013 and up to thirty diagnoses for the 2014 to 2016 coded and collected in the NEDS database. The diagnosis codes of NEDS are based on the International Classification of Disease, edition 9 (ICD-9-CM) for the years 2009, 2011 to 2014 and the first three-quarters of 2015 data and ICD-10-CM for the last quarter of 2015 and 2016 data. The ICD-9 diagnosis codes for Behavioral and Mental Health used were from 290 to 319. All ICD-9 diagnoses were coded by rolling up to the higher level of codes between 290 and 319 and grouped into seven categories as stated in Table 3.⁶⁷

Table 3: ICD-9 Categories

| Group # | ICD-9 Codes | Group Description |
|---------|---------------------------------------|---|
| 1 | 290, 293, 294, 297 | Dementias/Delusional/Transient/Persistent |
| 2 | 291, 292, 303, 304, 305 | Drug and Alcohol Dependence |
| 3 | 295, 298 | Schizophrenic and Other Psychoses |
| 4 | 296, 311 | Depressive and Episodic Mood |
| 5 | 300 | Anxiety, dissociative and somatoform |
| 6 | 308, 309 | Acute and Adjustment Reaction to Stress |
| 7 | 299, 301, 302, 306, 307, 310, 312-319 | Other |

The ICD-10 diagnosis codes for Mental and Behavioral Health are from F01 to F99, with further detailed coding within each level. Since the NEDS data for 2009, 2011 to 2014 and the first three-quarters of 2015 data are coded using ICD-9 codes, and the diagnosis codes for the last quarter of 2015 and 2016 data use ICD-10 codes, to compare the incidence of diagnoses for 2011 to 2016 with the 2009 diagnoses, all diagnosis codes should be on the same coding system. Since most of the diagnoses data are coded in ICD-9, it was necessary to find the corresponding CD-9 codes for each ICD-10 code. All ICD-9 codes were mapped to ICD-10 detailed levels using the AHRQ MAPIT toolkit.⁶⁹ The MAPIT tool takes a set of ICD-9 codes at each level up to 5-digit codes and map it into an equivalent ICD-10 code at each level up to 5-digit codes using Centers for Medicare & Medicaid (CMS) equivalence mapping. This mapping were done in a two-step process, forward and backward mapping. All forward and backward mapping codes are used to find the equivalent of each ICD-10 code for each ICD-9 code at a detail level up to 5-digits (Appendix B). The ICD-10 diagnosis codes in the last quarter of 2015 and 2016 data are rolled up to the top level, F01 to F99. These diagnosis data files for the fourth quarter of 2015 and 2016 are merged with the ICD-9 to ICD-10 Mapping file, where ICD-10 codes were also rolled up to the highest level. These results are the assignment of ICD-9 codes and groupings for each ICD-10 code in the data for the fourth quarter of 2015 and 2016. The high-level coding is listed in Table 4.^{67,68}

Table 4: Mapping of ICD-10 to ICD-9

| Group # | ICD-9 | ICD-10 |
|---------|--|---|
| 1 | 290, 293, 294, 297 | F01, F02, F03, F04, F05, F06, F22, F23, F24, F53 |
| 2 | 291, 292, 303, 304, 305 | F10, F11, F12, F13, F14, F15, F16, F17, F18, F19, F55 |
| 3 | 295, 298 | F20, F23, F25, F28, F29, F32, F33, F44 |
| 4 | 296, 311 | F30, F31, F32, F33, F34, F39 |
| 5 | 300 | F34, F40, F41, F42, F44, F45, F48, F68, F99, R45 |
| 6 | 308, 309 | F43, F93, F94, R45 |
| 7 | 299, 301, 302, 309, 307, 310, 312, 313, 314, 315, 316, 317, 318, 319 | F07, F09, F21, F34, F42, F45, F48, F50, F51, F52, F54, F59, F60, F63, F64, F65, F66, F68, F69, F70, F71, F72, F73, F78, F79, F80, F81, F82, F84, F88, F89, F90, F91, F93, F94, F98, G44, H93, R45, R48, Z87 |

3.3 Endpoints

The endpoints, outcome measures are:

1. The proportion of ED visits for patients with psychiatric disorders.
2. The proportion of psychiatric-related ED visits by age category ($18 \leq \text{age} \leq 25$, $26 \leq \text{age} \leq 49$ and $50 \leq \text{age} \leq 64$), sex/gender (Male, Female), payer (Medicare, Medicaid, Private, Uninsured), and hospital region (Urban, Rural).
3. The proportion of patients with ED disposition of treat-and-release for psychiatric patients admitted to ED.

3.4 Statistical Analysis

All endpoints were summarize using the descriptive statistics and analyzed. For statistical analyses, all tests are two-sided with significance interpreted at $\alpha = 0.05$.

3.4.1 Specific Aim 1

The primary comparison of interest is the proportion of ED visits for patients with psychiatric conditions admitted to ED. The analysis methodology is logistic regression adjusting for covariates such as age sex/gender, payer, and hospital region.

The following categories are considered for the covariates:

Age (years): $18 \leq \text{age} \leq 25$, $26 \leq \text{age} \leq 49$, $50 \leq \text{age} \leq 64$

Sex: Male, Female

Payer: Medicare, Medicaid, Private, Uninsured

Hospital Region: Urban, Rural

The odds ratio (OR) and 95% confidence interval (CI) using Mantel-Haenszel Chi-Square (χ^2) statistics were computed and reported. The Proc Logistics method in SAS were used with the model shown below.

Analysis Model:

ED Visit = ACA

Where variables are:

- i. ED Visit (1 = Yes, 2 = No)
- ii. ACA (1=YES, 0=NO) 1 for post-ACA, 0 for pre-ACA
- iii. Agec (1= $18 \leq \text{Age} \leq 25$, 2= $26 \leq \text{Age} \leq 49$, 3= $50 \leq \text{Age} \leq 64$)
- iv. Sex (0=Male, 1=Female)
- v. Payerc (1=Medicare, 2=Medicaid, 3=Private, 4=Uninsured)
- vi. Uhrc (1=Urban, 2=Rural)

3.4.2 Specific Aim 2

The proportion of psychiatric-related ED visits by age category, sex/gender, payer, and hospital region were evaluated at each level of patient characteristics and compared for each Post-ACA year (2011 to 2016) to Pre-ACA, 2009. The statistical significance of each variable are measured using Mantel-Haenszel χ^2 statistics. For statistical analyses, all tests are two-sided with significance interpreted at $\alpha = 0.05$.

3.4.3 Specific Aim 3

For this aim, the proportion of psychiatric-related ED visits with the disposition of treat-and-release were evaluated using logistic regression model adjusting for

covariates. The analysis model is similar to that of Specific Aim 1. The ORs and 95% CIs using Mantel-Haenszel χ^2 statistics were reported.

In this study, the covariates are limited to age, sex/gender, payer, and hospital region because the NEDS data does not contain other demographic or socioeconomic data such as race and ethnicity. All data were summarized using descriptive statistics and analyzed as stated above. All data will be reported for the observed data. No imputation are made for missing data. The statistical significance of each endpoint are measured using Mantel-Haenszel χ^2 statistics. For statistical analyses, all tests are two-sided with significance interpreted at $\alpha = 0.05$. The SAS software version 9.4 were used for the reporting of all data and analysis of endpoints.

4 RESULTS

The number of ED visits for all ages from the data in NEDS 2009 and 2011 to 2016 data was 28.9 million in 2009, 28.8 million in 2011, 31.1 million in 2012, 29.6 million in 2013, 31.0 million in 2014, 30.5 million in 2015 and 32.7 million in 2016 (Table 5). A majority of ED visits for all ages had at least one diagnosis. During 2009 and 2011 to 2016, more than 99% of ED visits had a diagnosis. The overall number of ED visits for all ages increased between 0.7 to 3.8 million visits from Pre-ACA 2009 to Post-ACA years, 2012 to 2016 and decreased by more than 70,000 visits from Pre-ACA to Post-ACA 2011 (Table 5). Table 5 shows a summary of reported ED visits from the NEDS 2009 and 2011 to 2016 data.

Table 5: Summary of Emergency Department Visits

| Year | ED Visits for All Ages N | ED Visits for All Ages | | Change from Pre-ACA in Number of ED Visits n | |
|----------|--------------------------|------------------------|-------------------------|--|-----------|
| | | With Diagnosis n (%) | With No Diagnosis n (%) | | |
| Pre-ACA | 2009 | 28,861,047 | 28,857,685 (99.99) | 3,362 (0.01) | N/A |
| Post-ACA | 2011 | 28,788,399 | 28,778,945 (99.97) | 9,454 (0.03) | -72,648 |
| | 2012 | 31,091,020 | 31,081,397 (99.97) | 9,623 (0.03) | 2,229,973 |
| | 2013 | 29,581,718 | 29,566,546 (99.95) | 15,172 (0.05) | 720,671 |
| | 2014 | 31,026,417 | 31,018,357 (99.97) | 8,060 (0.03) | 2,165,370 |
| | 2015 | 30,542,691 | 30,517,883 (99.92) | 24,808 (0.08) | 1,681,644 |
| | 2016 | 32,680,232 | 32,673,763 (99.98) | 6,469 (0.02) | 3,819,185 |

Note: Percentages are based on total visits, N

Over 60% of all ED visits were adults aged 18-64 years old (Table 6). The ED visits for adults 18-64 increased from Pre-ACA 2009 to Post-ACA years 2011 to 2016 (Table 6). Among ED visits for adults 18-64, more than 99.9% of ED visits had at least one diagnosis (Table 6). Table 6 shows a summary of reported ED visits for adults aged 18-64.

Table 6: Summary of Emergency Department Visits for Adults 18-64

| Year | ED Visits for All Ages N | ED Visits for Adults 18-64 n (%) | Change from Pre-ACA in Number (%) of ED Visits Adults 18-64, n (%) | ED Visits for Adults 18-64, with Diagnosis, n (%) | |
|----------|--------------------------|----------------------------------|--|---|--------------------|
| | | | | | Pre-ACA |
| Post-ACA | 2011 | 28,788,399 | 17,851,375 (62.0) | 203,388 (0.9) | 17,845,772 (99.97) |
| | 2012 | 31,091,020 | 19,332,543 (62.2) | 1,684,556 (1.0) | 19,325,068 (99.96) |
| | 2013 | 29,581,718 | 18,422,747 (62.3) | 774,760 (1.1) | 18,412,805 (99.95) |
| | 2014 | 31,026,417 | 19,504,512 (62.9) | 1,856,525 (1.7) | 19,498,007 (99.97) |
| | 2015 | 30,542,691 | 18,755,893 (61.4) | 1,107,906 (0.3) | 18,738,803 (99.91) |
| | 2016 | 32,680,232 | 20,077,331 (61.4) | 2,429,344 (0.3) | 20,073,238 (99.98) |

Note: Percentages are based on total visits, N

The number of ED visits for adults aged 18-64 with at least one diagnosis was 17.6 million in Pre-ACA 2009 and for Post-ACA years, 17.8 million in 2011, 19.3 million in 2012, 18.4 million in 2013, 19.5 million in 2014, 18.7 million in 2015, and 20.1 million in 2016 (Table 6). The number of ED visits for adults 18-64 with diagnosis was higher in Post-ACA 2016 (20.1 million) than any other years Post-ACA with the lowest in Post-ACA 2011 (17.6 million). Figure 1 shows the graphical presentation of ED visits for all ages and adults aged 18-64 years.

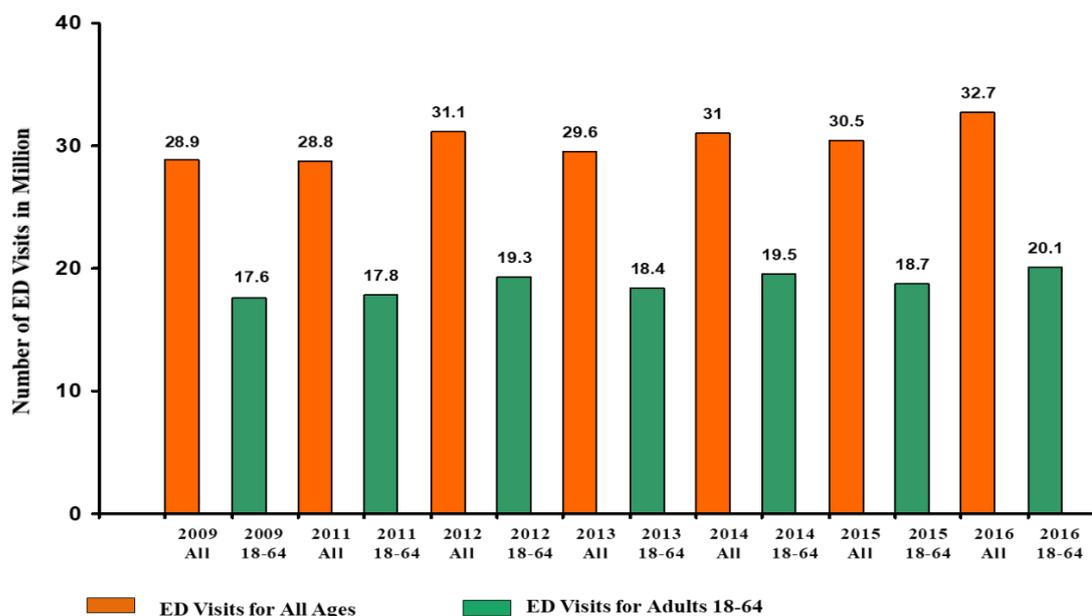


Figure 1: Number of ED Visits for All Ages and Adults 18-64

ED visits for adults aged 18-64 with at least one diagnosis were used for the analysis and reporting of data.

4.1 Psychiatric-Related Emergency Department Visits

The psychiatric-related ED visits were more than 4.3 million visits in Pre-ACA, 2009, and ranging from 4.7 million to 6.0 million visits in Post-ACA, 2011 to 2016 (Table 7). The proportion of psychiatric-related ED visits increased from 24.1% in Pre-ACA 2009 to Post-ACA years to 26.4% in 2011, 27.3% in 2012, 28.6% in 2013, 29.9%

in 2014, 31.3% in 2015, and 29.8% in 2016 (Table 7). Table 7 shows the number of all ED visits and psychiatric-related ED visits for adults 18-64 with at least one diagnosis.

Table 7: Summary of Psychiatric-Related ED Visits

| Year | | ED Visits for Adults 18-64 N | Psychiatric-Related ED Visits n (%) |
|----------|------|---------------------------------|--|
| Pre-ACA | 2009 | 17,645,539 | 4,253,110 (24.1) |
| Post-ACA | 2011 | 17,845,772 | 4,717,856 (26.4) |
| | 2012 | 19,325,068 | 5,267,941 (27.3) |
| | 2013 | 18,412,805 | 5,261,875 (28.6) |
| | 2014 | 19,498,007 | 5,832,444 (29.9) |
| | 2015 | 18,738,803 | 5,857,686 (31.3) |
| | 2016 | 20,073,238 | 5,986,274 (29.8) |

Note: Percentages are based on total visits, N

Figure 2 shows the graphical presentation of the number of all ED visits and psychiatric-related ED visits for adults 18-64 with at least one diagnosis.

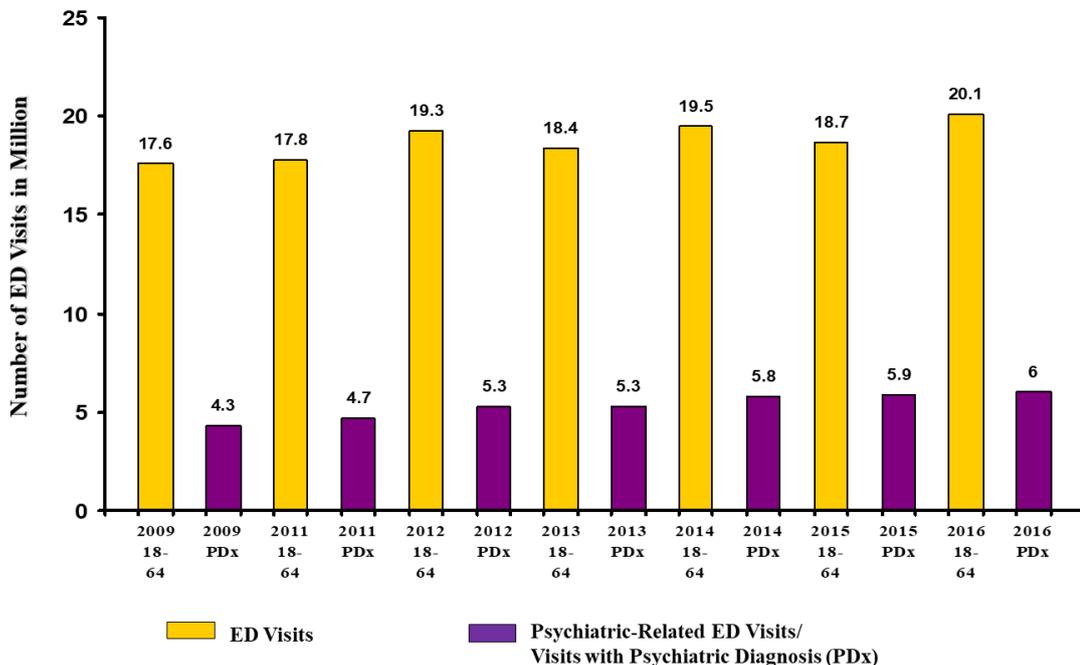


Figure 2: Number of ED Visits and Psychiatric-Related Visits, Adults 18-64

4.2 Characteristics of Psychiatric-Related ED Visits

Tables 8 and 9 show the summary of psychiatric-related ED visits by age and the change from Pre-ACA to Post-ACA in the number and percentage of psychiatric-related ED visits by age. The proportion of psychiatric-related ED visits decreased over time from Pre-ACA to Post-ACA 2011 to 2016, from 17.6% in 2009 to 15.2% in 2016

for adults 18-25. It decreased over time for adults 26-49 from 55.6% in Pre-ACA 2009 to 53.3% in Post-ACA 2014, and slightly increased in 2015 and 2016 to 53.5% and 53.6%, respectively. For adults 50-64, it increased over time from 26.8% in Pre-ACA 2009 to Post-ACA 2011 to 2016 with the proportions ranging from 28.3% to 31.1%.

Table 8: Summary of Psychiatric-Related ED Visits by Age

| Year | | Psychiatric-Related ED Visits | | | |
|----------|------|-------------------------------|----------------|------------------|------------------|
| | | N | 18 ≤ age ≤ 25 | 26 ≤ age ≤ 49 | 50 ≤ age ≤ 64 |
| Pre-ACA | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | 2011 | 4,717,856 | 823,081 (17.4) | 2,560,003 (54.3) | 1,334,772 (28.3) |
| Post-ACA | 2012 | 5,267,941 | 899,050 (17.1) | 2,839,605 (53.9) | 1,529,286 (29.0) |
| | 2013 | 5,261,875 | 874,206 (16.6) | 2,820,459 (53.6) | 1,567,210 (29.8) |
| | 2014 | 5,832,444 | 945,765 (16.2) | 3,107,914 (53.3) | 1,778,765 (30.5) |
| | 2015 | 5,857,686 | 920,502 (15.7) | 3,135,229 (53.5) | 1,801,955 (30.8) |
| | 2016 | 5,986,274 | 910,796 (15.2) | 3,211,163 (53.6) | 1,864,315 (31.1) |

Note: Percentages are based on total visits, N

Overall, the number of psychiatric-related ED visits by age increased for all Post-ACA years, 2011 to 2016, compared to Pre-ACA 2009 for adults 18 to 25, 26 to 49 and 50 to 64, regardless of positive or negative changes in the percentage points from Pre-ACA to Post-ACA.

Table 9: Summary of Change From Pre-ACA in Number (%) of Psychiatric-Related ED Visits by Age

| Year | | Change from Pre-ACA in Number and Percentage of Psychiatric-Related ED visits | | |
|----------|------|---|----------------|---------------|
| | | 18 ≤ age ≤ 25 | 26 ≤ age ≤ 49 | 50 ≤ age ≤ 64 |
| Pre-ACA | 2009 | N/A | N/A | N/A |
| | 2011 | 73,226 (-0.2) | 196,804 (-1.3) | 194,716 (1.5) |
| Post-ACA | 2012 | 149,195 (-0.6) | 476,406 (-1.7) | 389,230 (2.2) |
| | 2013 | 124,351 (-1.0) | 457,260 (-2.0) | 427,154 (3.0) |
| | 2014 | 195,910 (-1.4) | 744,715 (-2.3) | 638,709 (3.7) |
| | 2015 | 170,647 (-1.9) | 772,030 (-2.0) | 661,899 (4.0) |
| | 2016 | 160,941 (-2.4) | 847,964 (-1.9) | 724,259 (4.3) |

Note: Percentages are based on changes from Pre-ACA to Post-ACA.

Figure 3 shows the graphical presentation of the proportion of psychiatric-related ED visits by age category.

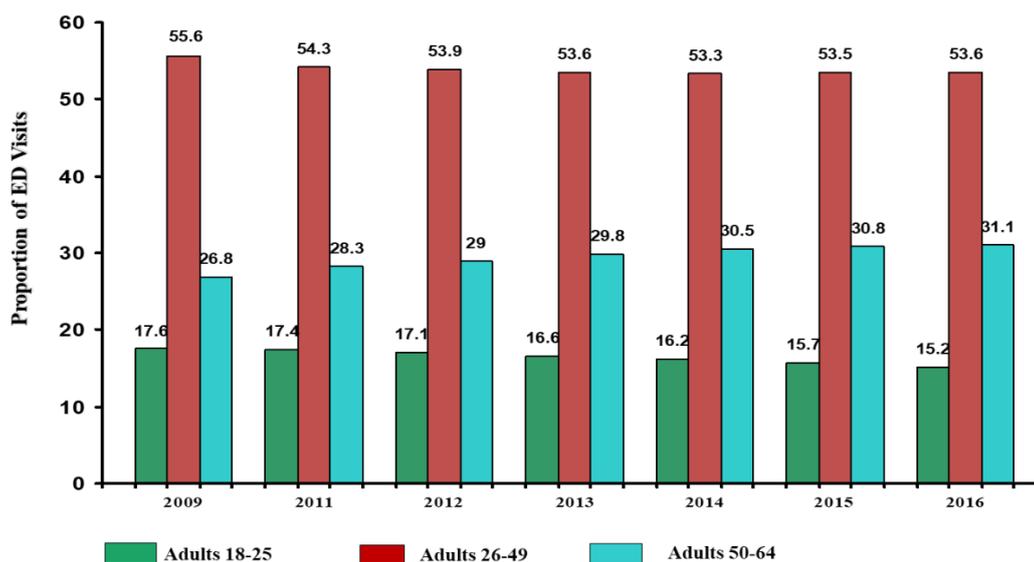


Figure 3: Proportion of Psychiatric-Related ED Visits by Age

Tables 10 and 11 show the summary of psychiatric-related ED visits and the change from Pre-ACA to Post-ACA in the number and percentage of psychiatric-related ED visits by sex. For the psychiatric-related ED visits by sex, females had more psychiatric-related ED visits than males for Pre-ACA 2009 and Post-ACA 2011 to 2016 years. The proportion of psychiatric-related ED visits for males increased from 48.2% in Pre-ACA 2009 to Post-ACA 2013 to 2016 range of 48.2% to 49.2%, decreased to 48.1% in Post-ACA 2011 and remained the same in Post-ACA 2012. For females, the psychiatric-related ED visits for Pre-ACA 2009 was 51.8% and increased to 51.9% in Post-ACA 2011, remained the same at 51.8% in Post-ACA 2012, and decreased ranging from 51.5% to 50.8% in Post-ACA 2013 to 2016.

Table 10: Summary of Psychiatric-Related ED Visits by Sex

| Year | | Psychiatric-Related ED Visits | | |
|----------|------|-------------------------------|------------------|------------------|
| | | N | Male | Female |
| Pre-ACA | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | 2011 | 4,717,856 | 2,267,410 (48.1) | 2,449,362 (51.9) |
| Post-ACA | 2012 | 5,267,941 | 2,536,702 (48.2) | 2,731,029 (51.8) |
| | 2013 | 5,261,875 | 2,553,582 (48.5) | 2,708,100 (51.5) |
| | 2014 | 5,832,444 | 2,858,608 (49.0) | 2,973,647 (51.0) |
| | 2015 | 5,857,686 | 2,884,558 (49.2) | 2,972,285 (50.8) |
| | 2016 | 5,986,274 | 2,939,018 (49.1) | 3,046,072 (50.9) |

Note: Percentages are based on total visits, N

Although the percentage decrease or increase is small from Post-ACA 2011 to 2016 compared to Pre-ACA 2009, the number of ED visits increased for both males and females in Post-ACA years compared to Pre-ACA.

Table 11: Summary of Change from Pre-ACA in Number (%) of Psychiatric-Related ED Visits by Sex

| Year | | Change from Pre-ACA in Number and Percentage of Psychiatric-Related ED visits | |
|----------|------|---|----------------|
| | | Male | Female |
| Pre-ACA | 2009 | N/A | N/A |
| Post-ACA | 2011 | 218,495 (-0.1) | 247,529 (0.1) |
| | 2012 | 487,787 (0.0) | 529,196 (0.0) |
| | 2013 | 504,667 (0.3) | 506,267 (-0.3) |
| | 2014 | 809,693 (0.8) | 771,814 (-0.8) |
| | 2015 | 835,643 (1.0) | 770,452 (-1.0) |
| | 2016 | 890,103 (0.9) | 844,239 (-0.9) |

Note: Percentages are based on changes from Pre-ACA to Post-ACA.

Figure 4 shows the graphical presentation of the proportion of psychiatric-related ED visits by sex.

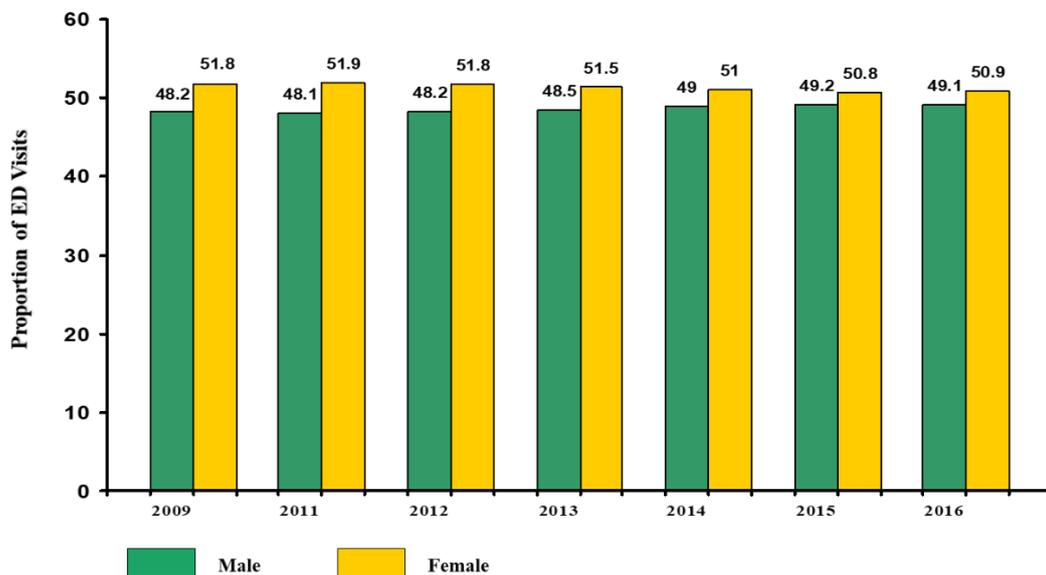


Figure 4: Proportion of Psychiatric-Related ED Visits by Sex

Tables 12 and 13 show the summary of psychiatric-related ED visits and the change from Pre-ACA to Post-ACA in the number and percentage of psychiatric-related ED visits by payer. The proportion of psychiatric-related ED visits for Medicare increased from 14.0% in Pre-ACA 2009 compared to Post-ACA 2011 to 2016 ranging from 14.8% to 15.3%. The proportion of psychiatric-related ED visits for Medicaid patients increased from 25.4% in Pre-ACA 2009 to Post-ACA years, 27.8% for both

2011 and 2012, 27.5% in 2013, 34.3% in 2014, 35.4% in 2015, and 36.1% in 2016. There was a decrease in the proportion of psychiatric-related ED visits for the private payers for Post-ACA 2016 in comparison with Pre-ACA 2009 (25.9% vs. 27.3%). The same trend was observed for the uninsured payers (22.8% vs. 32.9%).

Table 12: Summary of Psychiatric-Related ED Visits by Payer

| Year | | Psychiatric-Related ED Visits | | | | |
|----------|------|-------------------------------|----------------|------------------|------------------|------------------|
| | | N | Medicare | Medicaid | Private | Uninsured |
| Pre-ACA | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.4) | 1,161,704 (27.3) | 1,397,543 (32.9) |
| | 2011 | 4,717,856 | 696,800 (14.8) | 1,310,278 (27.8) | 1,188,336 (25.2) | 1,503,730 (31.9) |
| Post-ACA | 2012 | 5,267,941 | 798,249 (15.2) | 1,466,945 (27.8) | 1,250,220 (23.7) | 1,743,569 (33.1) |
| | 2013 | 5,261,875 | 798,598 (15.2) | 1,445,845 (27.5) | 1,240,697 (23.6) | 1,765,480 (33.6) |
| | 2014 | 5,832,444 | 893,412 (15.3) | 2,001,397 (34.3) | 1,407,246 (24.1) | 1,519,300 (26.0) |
| | 2015 | 5,857,686 | 880,447 (15.0) | 2,076,044 (35.4) | 1,508,765 (25.8) | 1,383,423 (23.6) |
| | 2016 | 5,986,274 | 900,217 (15.0) | 2,163,754 (36.1) | 1,551,449 (25.9) | 1,362,548 (22.8) |

Note: Percentages are based on total visits, N

For Medicare and Medicaid, there was a significant increase in the number of psychiatric-related ED visits in Post-ACA 2016 compared to Pre-ACA and the other Post-ACA years. For the private payers, the number of psychiatric-related ED visits increased in Post-ACA 2011 to 2016 compared to Pre-ACA 2009. For the uninsured payers, the number of ED visits increased for Post-ACA 2011 to 2014 and decreased for Post-ACA 2015 and 2016 compared to Pre-ACA 2009.

Table 13: Summary of Change from Pre-ACA in Number (%) of Psychiatric-Related ED Visits by Payer

| Year | | Change from Pre-ACA in Number and Percentage of Psychiatric-Related ED visits | | | |
|----------|------|---|------------------|----------------|-----------------|
| | | Medicare | Medicaid | Private | Uninsured |
| Pre-ACA | 2009 | N/A | N/A | N/A | N/A |
| | 2011 | 101,912 (0.8) | 229,735 (2.4) | 26,632 (-2.1) | 106,187 (-1.0) |
| Post-ACA | 2012 | 203,361 (1.2) | 386,402 (2.4) | 88,516 (-3.6) | 346,026 (0.2) |
| | 2013 | 203,710 (1.2) | 365,302 (2.1) | 78,993 (-3.7) | 367,937 (0.7) |
| | 2014 | 298,524 (1.3) | 920,854 (8.9) | 245,542 (-3.2) | 121,757 (-6.9) |
| | 2015 | 285,559 (1.0) | 995,501 (10.0) | 347,061 (-1.6) | -14,120 (-9.2) |
| | 2016 | 305,329 (1.0) | 1,083,211 (10.7) | 389,745 (-1.4) | -34,995 (-10.1) |

Note: Percentages are based on change from Pre-ACA to Post-ACA.

Figures 5 show the graphical presentation of psychiatric-related ED visits by payer.

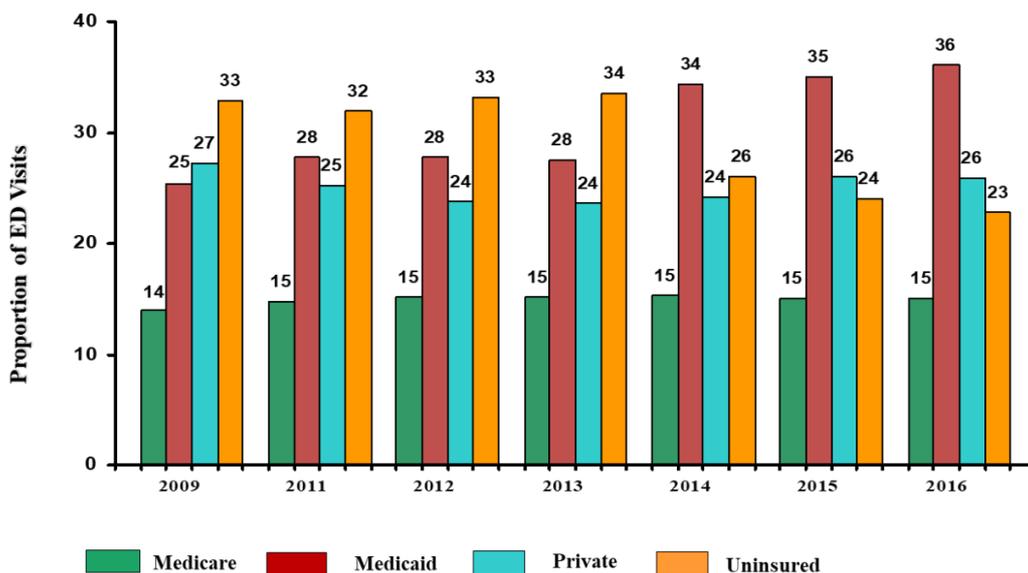


Figure 5: Proportion of Psychiatric-Related ED Visits by Payer

Tables 14 and 15 show the summary of psychiatric-related ED visits and the change from Pre-ACA to Post-ACA in the number and percentage of psychiatric-related ED visits by hospital region. The proportion of psychiatric-related ED visits for urban hospitals increased from 95.0% in Pre-ACA 2009 to Post-ACA 2011 to 2015, ranging from 95.2% to 96.3%, and decreased to 94% in Post-ACA 2016. For rural hospitals, the proportion of psychiatric-related ED visits decreased from 5.0% in Pre-ACA 2009 to a range from 3.7% to 4.8% in Post-ACA 2011 to 2015 and increased to 6.0% in Post-ACA 2016.

Table 14: Summary of Psychiatric-Related ED Visits by Hospital Region

| Year | | Psychiatric-Related ED Visits | | |
|----------|------|-------------------------------|------------------|---------------|
| | | N | Urban | Rural |
| Pre-ACA | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | 2011 | 4,717,856 | 4,503,377 (95.4) | 214,479 (4.6) |
| Post-ACA | 2012 | 5,267,941 | 5,043,931 (95.7) | 224,010 (4.3) |
| | 2013 | 5,261,875 | 5,010,535 (95.2) | 251,340 (4.8) |
| | 2014 | 5,832,444 | 5,562,407 (95.4) | 270,037 (4.6) |
| | 2015 | 5,857,686 | 5,639,622 (96.3) | 218,064 (3.7) |
| | 2016 | 5,986,274 | 5,626,675 (94.0) | 359,599 (6.0) |

Note: Percentages are based on total visits, N

Although the percentage decrease or increase in psychiatric-related ED visits for urban and rural hospitals for each of Post-ACA years 2011 to 2016 compared to the

Pre-ACA 2009 is small, the number of ED visits increased in Post-ACA years compared to Pre-ACA for both urban and rural hospitals.

Table 15: Summary of Change from Pre-ACA in Number (%) of Psychiatric-Related ED Visits by Hospital Region

| Year | | Change from Pre-ACA in Number and Percentage of Psychiatric-Related ED visits | |
|----------|------|---|---------------|
| | | Urban | Rural |
| Pre-ACA | 2009 | N/A | N/A |
| Post-ACA | 2011 | 462,095 (0.4) | 2,651 (-0.4) |
| | 2012 | 1,002,649 (0.7) | 12,182 (-0.7) |
| | 2013 | 969,253 (0.2) | 39,512 (-0.2) |
| | 2014 | 1,521,125 (0.4) | 58,209 (-0.4) |
| | 2015 | 1,598,340 (1.3) | 6,236 (-1.3) |
| | 2016 | 1,585,393 (-1.0) | 147,771 (1.0) |

Note: Percentages are based on change from Pre-ACA to Post-ACA.

Figure 6 shows the graphical presentation of psychiatric-related ED visits by hospital region.

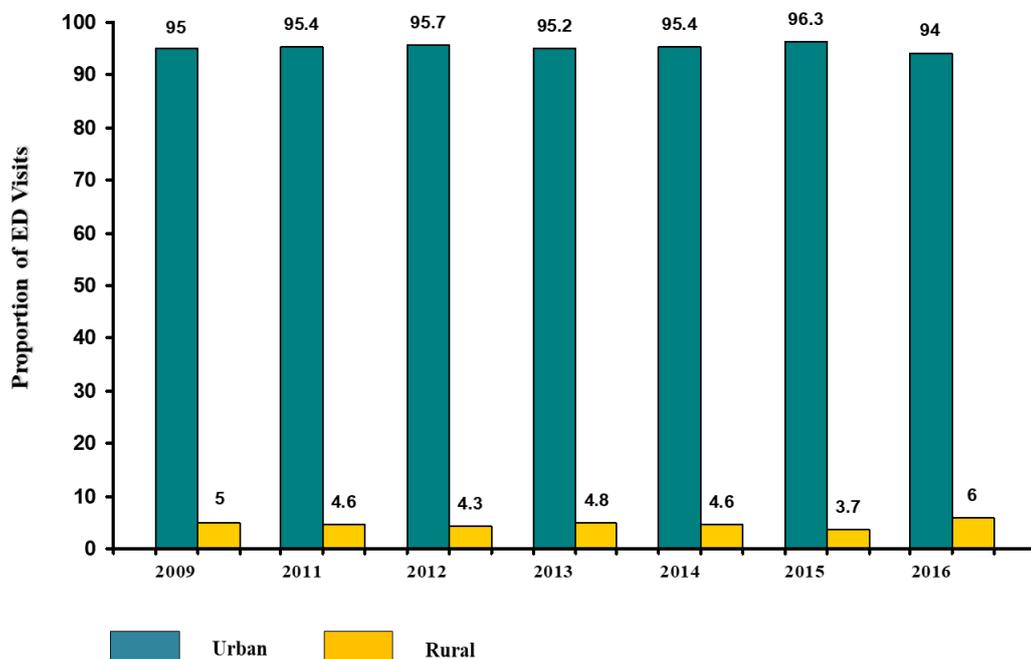


Figure 6: Proportion of Psychiatric-Related ED Visits by Hospital Region

4.3 Psychiatric-Related ED Visits Disposition

The ED visits disposition or types are categorized into three categories, treated and released (Treat-and-Release), admitted or transferred to hospital (Admitted/Transferred), and other reasons (Other) within NEDS database. Table 16 shows the summary of psychiatric-related ED visits disposition.

In Pre-ACA 2009 data, the psychiatric-related ED visits disposition was 73.4% with Treat-and-Release, 26.3% of visits with Admitted/Transferred to Hospitals, and 0.3% with Other reasons. In the Post-ACA 2011 to 2016 except 2015, psychiatric-related ED visits disposition of Treat-and-Release increased over time, from 75.5% to 78.9% compared to Pre-ACA 2009 of 73.4%. The ED visits disposition of Admitted/Transferred to Hospitals decreased from 24.0% in Post-ACA 2011 to 20.9% in 2016 compared to 26.3% in Pre-ACA 2009. In Post-ACA 2015, ED visits disposition was 72.5% with Treat-and-Release, lower than all the other Post-ACA years; 20.5% for the Admitted/Transferred to Hospitals, lower than the other Post-ACA years; and 6.9% for other reasons, much higher than other years Pre-ACA and Post-ACA (Table 16).

Table 16: Summary of Psychiatric-Related ED Visits Disposition

| Year | | Psychiatric-Related ED Visit Disposition, n(%) | | | |
|----------|------|--|----------------------|----------------------|---------------|
| | | N | Treated and Released | Admitted/Transferred | Other |
| Pre-ACA | 2009 | 4,253,110 | 3,120,641 (73.4) | 1,120,591 (26.3) | 11,878 (0.3) |
| | 2011 | 4,717,856 | 3,570,582 (75.7) | 1,134,480 (24.0) | 12,794 (0.3) |
| Post-ACA | 2012 | 5,267,941 | 4,040,346 (76.7) | 1,217,517 (23.1) | 10,078 (0.2) |
| | 2013 | 5,261,875 | 4,077,050 (77.5) | 1,173,982 (22.3) | 10,843 (0.2) |
| | 2014 | 5,832,444 | 4,529,512 (77.7) | 1,290,870 (22.1) | 12,062 (0.2) |
| | 2015 | 5,857,686 | 4,248,209 (72.5) | 1,203,119 (20.5) | 406,358 (6.9) |
| | 2016 | 5,986,274 | 4,725,090 (78.9) | 1,248,895 (20.9) | 12,289 (0.2) |

Note: Percentages are based on total visits, N.

Figure 7 shows the graphical presentation of psychiatric-related ED visits disposition.

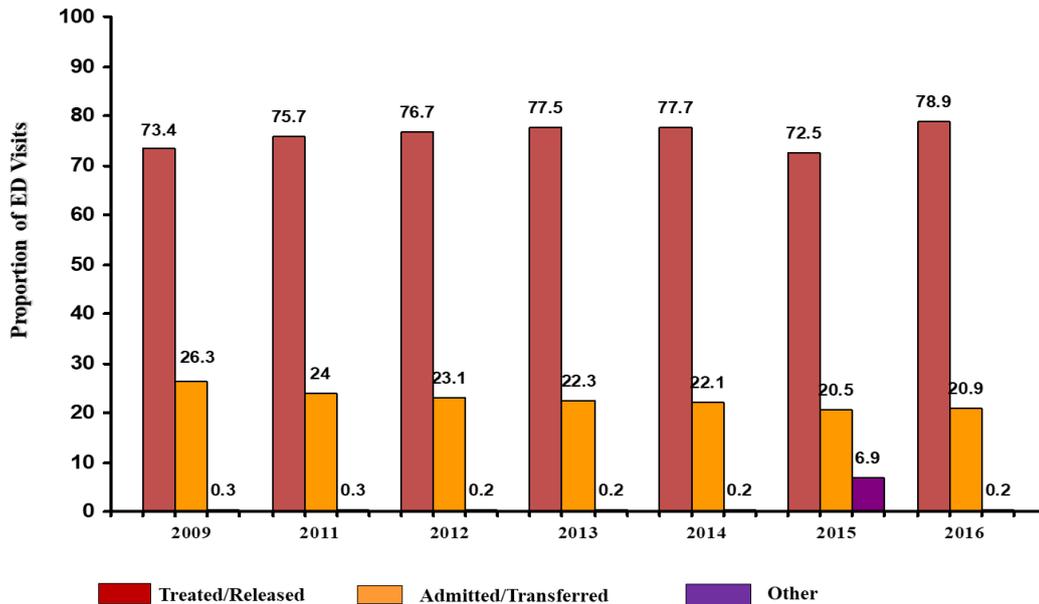


Figure 7: Proportion of Psychiatric-Related ED Visit Disposition

Table 17 shows the summary of psychiatric-related ED visits disposition of Treat-and-Release by age category. Among the psychiatric-related ED visits with a disposition of Treat-and-Release, the proportion of Treat-and-Release visits was the highest for adults aged 26 to 49, followed by adults aged 50 to 64. For adults aged 18 to 25, the proportion of Treat-and-Release ED visits was 20.8% for Pre-ACA 2009 and decreased over time from 20.2% to 17.1% for Post-ACA 2011 to 2016. For adults aged 26 to 49, the proportion of Treat-and-Release ED visits was 58.3% for Pre-ACA 2009 and decreased ranging from 57.1% to 56.6% for Post-ACA 2011 to 2016. For adults aged 50 to 64, the proportion of Treat-and-Release ED visits was 20.9% for Pre-ACA 2009 and increased over time between 22.7% to 26.4% for Post-ACA 2011 to 2016. Although the proportion of ED visits decreased from Pre-ACA to Post-ACA years for both adults aged 18-25 and 26-49, the number of ED visits continued to increase from Pre-ACA to Post-ACA years.

Table 17: Summary of ED Visits Disposition of Treat-and-Release by Age

| Year | | Psychiatric-Related ED Visits | | | |
|----------|------|-------------------------------|----------------|------------------|------------------|
| | | N | 18 ≤ age ≤ 25 | 26 ≤ age ≤ 49 | 50 ≤ age ≤ 64 |
| Pre-ACA | 2009 | 3,120,641 | 647,925 (20.8) | 1,819,787 (58.3) | 652,929 (20.9) |
| Post-ACA | 2011 | 3,570,582 | 720,246 (20.2) | 2,038,355 (57.1) | 811,981 (22.7) |
| | 2012 | 4,040,346 | 790,934 (19.6) | 2,289,659 (56.7) | 959,753 (23.8) |
| | 2013 | 4,077,050 | 770,081 (18.9) | 2,300,526 (56.4) | 1,006,443 (24.7) |
| | 2014 | 4,529,512 | 832,045 (18.4) | 2,546,771 (56.2) | 1,150,696 (25.4) |
| | 2015 | 4,248,209 | 756,474 (17.8) | 2,384,777 (56.1) | 1,106,958 (26.1) |
| | 2016 | 4,725,090 | 805,708 (17.1) | 2,673,535 (56.6) | 1,245,847 (26.4) |

Note: Percentages are based on total visits, N

Figure 8 shows the graphical presentation of ED visits disposition of Treat-and-Release by age.

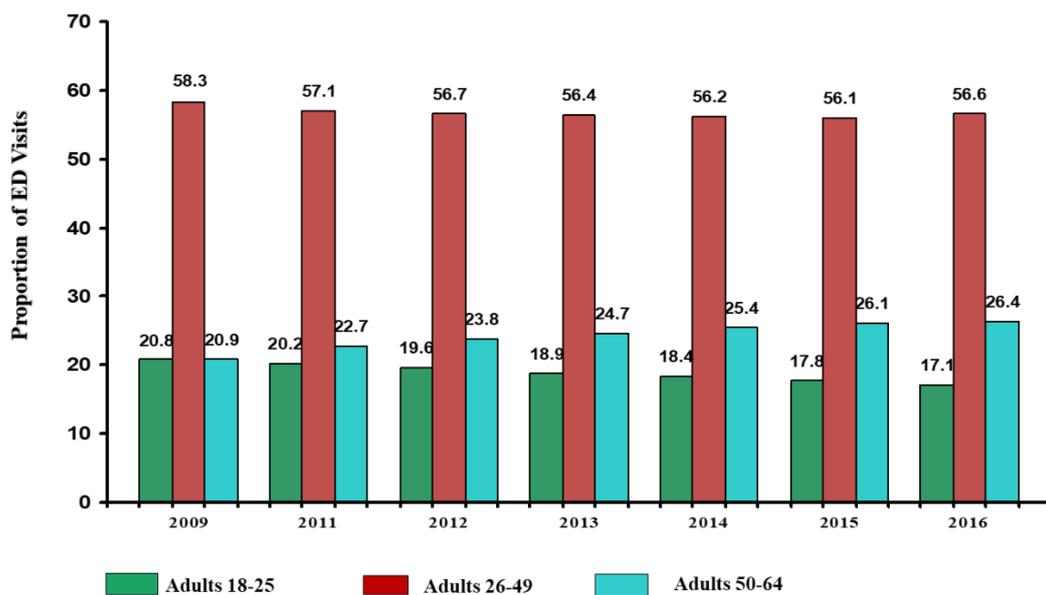
**Figure 8: Proportion of ED Visit Disposition of Treat-and-Release by Age**

Table 18 shows the summary of psychiatric-related ED visits disposition of Treat-and-Release by sex. The proportion of psychiatric-related ED visits with Treat-and-Release disposition was higher for females than males for Pre-ACA 2009 and Post-ACA 2011 to 2016. The proportion of Treat-and-Release visits for males increased from Pre-ACA 2009 at 46.6% to Post-ACA 2011 to 2016 ranging from 46.7% to 48.2%. For females, the proportion of Treat-and-Release visits decreased from Pre-ACA 2009 at 53.4% to Post-ACA 2011 to 2016 ranging from 51.7% to 53.3%. The number of

psychiatric-related ED visits with Treat-and-Release disposition increased for all Post-ACA years 2011 to 2016 compared to Pre-ACA 2009.

Table 18: Summary of ED Visits Disposition of Treat-and-Release by Sex

| Year | | Psychiatric-Related ED Visits | | |
|----------|------|-------------------------------|------------------|------------------|
| | | N | Male | Female |
| Pre-ACA | 2009 | 3,120,641 | 1,453,275 (46.6) | 1,665,061 (53.4) |
| Post-ACA | 2011 | 3,570,582 | 1,666,246 (46.7) | 1,903,275 (53.3) |
| | 2012 | 4,040,346 | 1,891,558 (46.8) | 2,148,601 (53.2) |
| | 2013 | 4,077,050 | 1,927,126 (47.3) | 2,149,765 (52.7) |
| | 2014 | 4,529,512 | 2,163,413 (47.8) | 2,365,947 (52.2) |
| | 2015 | 4,248,209 | 2,049,294 (48.2) | 2,198,276 (51.7) |
| | 2016 | 4,725,090 | 2,265,127 (47.9) | 2,459,367 (52.0) |

Note: Percentages are based on total visits, N

Figure 9 shows the graphical presentation of ED visits disposition of Treat-and-Release by sex.

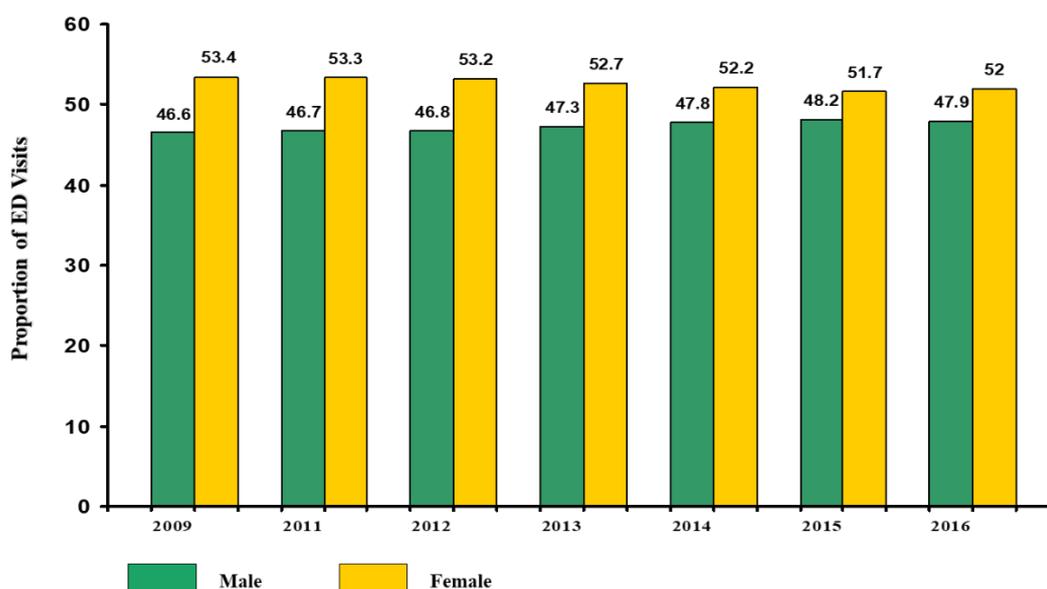


Figure 9: Proportion of ED Visit Disposition of Treat-and-Release by Sex

Table 19 shows the summary of psychiatric-related ED visits disposition of Treat-and-Release by payer. The proportion of Treat-and-Release visits for Medicare increased from 11.3% in Pre-ACA 2009 to Post-ACA years, 2011 to 2016 ranging from 12.1% to 12.8%. The same trend was observed for Medicaid, with 25.1% for Pre-ACA 2009 to Post-ACA years ranging from 27.5% to 37.7%. For Post-ACA 2014 to 2016, Medicaid had a higher increase compared to Post-ACA 2011 to 2013. For private

payers, the proportion of Treat-and-Release visits was at 26.5% for Pre-ACA 2009 and decreased in Post-ACA 2011 to 2016 years, to 24.4% in 2011, 23.2% in 2012, 23.0% in 2013, 23.9% in 2014, 25.1% in 2015 and 25.7% in 2016. For the uninsured visits, the proportion of Treat-and-Release visits was at 36.7% for Pre-ACA 2009 and decreased during Post-ACA years to 24.9% in 2016.

Table 19: Summary of ED Visits Disposition of Treat-and-Release by Payer

| Year | | Psychiatric-Related ED Visits | | | | |
|----------|------|-------------------------------|----------------|------------------|------------------|------------------|
| | | N | Medicare | Medicaid | Private | Uninsured |
| Pre-ACA | 2009 | 3,120,641 | 351,324 (11.3) | 783,742 (25.1) | 825,506 (26.5) | 1,144,261 (36.7) |
| Post-ACA | 2011 | 3,570,582 | 432,162 (12.1) | 995,946 (27.9) | 871,169 (24.4) | 1,254,633 (35.1) |
| | 2012 | 4,040,346 | 512,171 (12.7) | 1,126,702 (27.9) | 936,465 (23.2) | 1,458,301 (36.1) |
| | 2013 | 4,077,050 | 518,063 (12.7) | 1,122,671 (27.5) | 937,727 (23.0) | 1,490,029 (36.5) |
| | 2014 | 4,529,512 | 579,706 (12.8) | 1,550,734 (34.2) | 1,083,661 (23.9) | 1,306,336 (28.8) |
| | 2015 | 4,248,209 | 544,704 (12.8) | 1,601,960 (37.7) | 1,066,226 (25.1) | 1,030,704 (24.3) |
| | 2016 | 4,725,090 | 598,452 (12.7) | 1,732,707 (36.7) | 1,212,889 (25.7) | 1,174,400 (24.9) |

Note: Percentages are based on total visits, N

Figure 10 shows the graphical presentation of ED visits disposition of Treat-and-Release by payer.

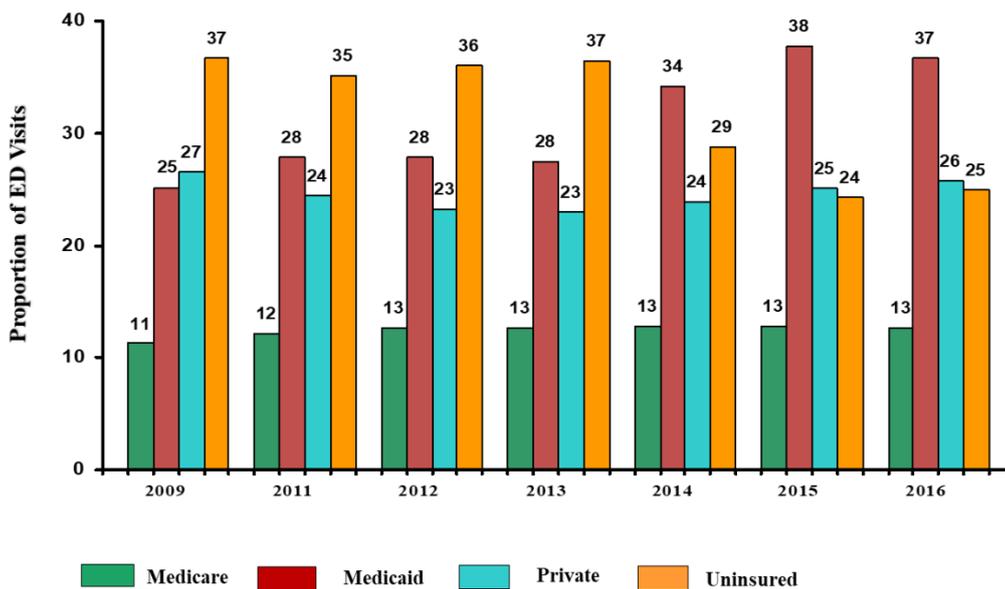


Figure 10: Proportion of ED Visit Disposition of Treat-and-Release by Payer

Table 20 shows the summary of psychiatric-related ED visits disposition of Treat-and-Release by hospital region. The proportion of psychiatric-related ED visits with Treat-and-Release disposition was higher for the urban hospitals than rural

hospitals for Pre-ACA 2009 and Post-ACA 2011 to 2016. The proportion of Treat-and-Release visits for urban hospitals was 94.6% for Pre-ACA 2009 and slightly increased in Post-ACA 2011 to 2015, 95.1% in 2011, 95.4% in 2012, 94.8% in 2013, 95.0% in 2014 and 95.9% in 2015 and decreased to 93.6% in 2016 compared to Pre-ACA. For rural hospitals, the proportion of Treat-and-Release visits for Pre-ACA 2009 was 5.4%, slightly decreased from Post-ACA 2011 to 2015 to 4.9%, 4.6%, 5.2%, 5.0%, and 4.1%, respectively and increased to 6.4% in Post-ACA 2016.

Table 20: Summary of ED Visits Disposition of Treat-and-Release by Hospital Region

| Year | | Psychiatric-Related ED Visits | | |
|----------|------|-------------------------------|------------------|---------------|
| | | N | Urban | Rural |
| Pre-ACA | 2009 | 3,120,641 | 2,952,057 (94.6) | 168,584 (5.4) |
| | 2011 | 3,570,582 | 3,396,252 (95.1) | 174,330 (4.9) |
| Post-ACA | 2012 | 4,040,346 | 3,852,943 (95.4) | 187,403 (4.6) |
| | 2013 | 4,077,050 | 3,864,871 (94.8) | 212,179 (5.2) |
| | 2014 | 4,529,512 | 4,303,446 (95.0) | 226,066 (5.0) |
| | 2015 | 4,248,209 | 4,075,031 (95.9) | 173,178 (4.1) |
| | 2016 | 4,725,090 | 4,420,683 (93.6) | 304,407 (6.4) |

Note: Percentages are based on total visits, N

Figure 11 shows the graphical presentation of ED visits disposition of Treat-and-Release by hospital region.

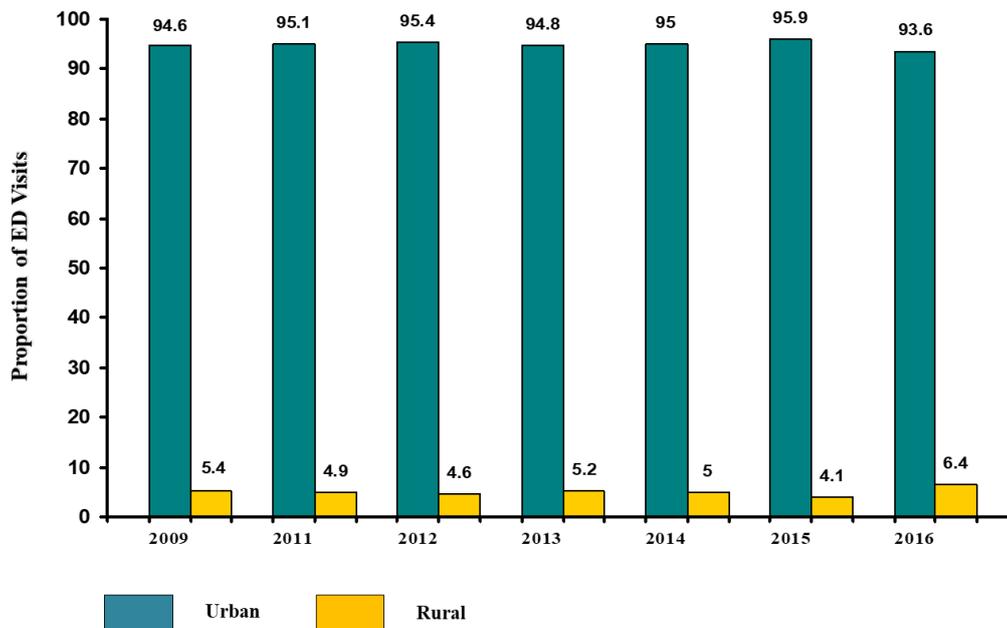


Figure 11: Proportion of ED Visit Disposition of Treat-and-Release by Region

4.4 Specific Aim 1

The objective of Aim 1 was to evaluate an association between the ACA and ED admission by psychiatric patients. The outcome measure or endpoint was the proportion of ED visits for patients with psychiatric disorders, namely psychiatric-related ED visits. The primary comparison of interest was the proportion of psychiatric-related ED visits for each of Post-ACA years, 2011 to 2016, with Pre-ACA 2009. The analysis methodology was using logistic regression adjusting for covariates. The covariates were age category in years, $18 \leq \text{age} \leq 25$, $26 \leq \text{age} \leq 49$ and $50 \leq \text{age} \leq 64$, sex/gender (male, female), payer (Medicare, Medicaid, private, uninsured), and hospital region (urban, rural).

The adjusted and unadjusted analyses were performed on the proportion of psychiatric-related ED visits for Pre-ACA and Post-ACA years comparisons, and ORs along with 95% CIs were reported. Table 21 shows the summary of psychiatric-related ED visits and the change from Pre-ACA to Post-ACA in the number and percentage of psychiatric-related ED visits. The proportion of psychiatric-related ED visits increased from 24.1% visits in Pre-ACA 2009 to Post-ACA years, 2011 to 2013, ranging from 26.4% to 28.6%, and to 29.9% in 2014, 31.3% in 2015 and 29.8% in 2016. The change from Pre-ACA to Post-ACA in percentage of psychiatric-related ED visits increased from 2.3% in Post-ACA 2011 to 5.7% in Post-ACA 2016. In Post-ACA 2015, there was an increase of 7.2% in percentage of psychiatric-related ED visits from Pre-ACA, higher than Post-ACA 2014 and 2016, 5.8% and 5.7%, respectively. The change in the number of psychiatric-related ED from Pre-ACA to Post-ACA 2014 increased by more than 1.5 million in 2014 and by more than 1.6 and 1.7 million increased visits in Post-ACA 2015 and 2016, respectively. In Post-ACA 2015, the number of ED visits for

adults 18-64 was 18.7 million visits, lower than 2014 (19.5 million) and 2016 (20.1 million). The psychiatric-related ED visits was higher in Post-ACA 2015 (5.9 million) than Post-ACA 2014 (5.8 million) and lower than Post-ACA 2016 (6.0 million). Although the changes from Pre-ACA to Post-ACA years in percentage of the proportion of psychiatric-related ED visits were small, ranging from 2.3% to 7.2%, the change in number of psychiatric-related ED visits were more than 460,000 visits for 2011, and more than 1.0 to 1.7 million visits for Post-ACA 2012 to 2016 compared to Pre-ACA.

Table 21: Summary of Psychiatric-Related ED Visits

| Year | | ED Visits for Adults 18-64 N | Psychiatric-Related ED Visits n (%) | Change from Pre-ACA in Psychiatric-Related ED visits n(%) |
|----------|------|---------------------------------|--|--|
| Pre-ACA | 2009 | 17,645,539 | 4,253,110 (24.1) | N/A |
| Post-ACA | 2011 | 17,845,772 | 4,717,856 (26.4) | 464,746 (2.3) |
| | 2012 | 19,325,068 | 5,267,941 (27.3) | 1,014,831 (3.2) |
| | 2013 | 18,412,805 | 5,261,875 (28.6) | 1,008,765 (4.5) |
| | 2014 | 19,498,007 | 5,832,444 (29.9) | 1,579,334 (5.8) |
| | 2015 | 18,738,803 | 5,857,686 (31.3) | 1,604,576 (7.2) |
| | 2016 | 20,073,238 | 5,986,274 (29.8) | 1,733,164 (5.7) |

Note: Percentages are based on total visits, N

A graphical presentation of the proportion of psychiatric-related ED visits is in Figure 12.

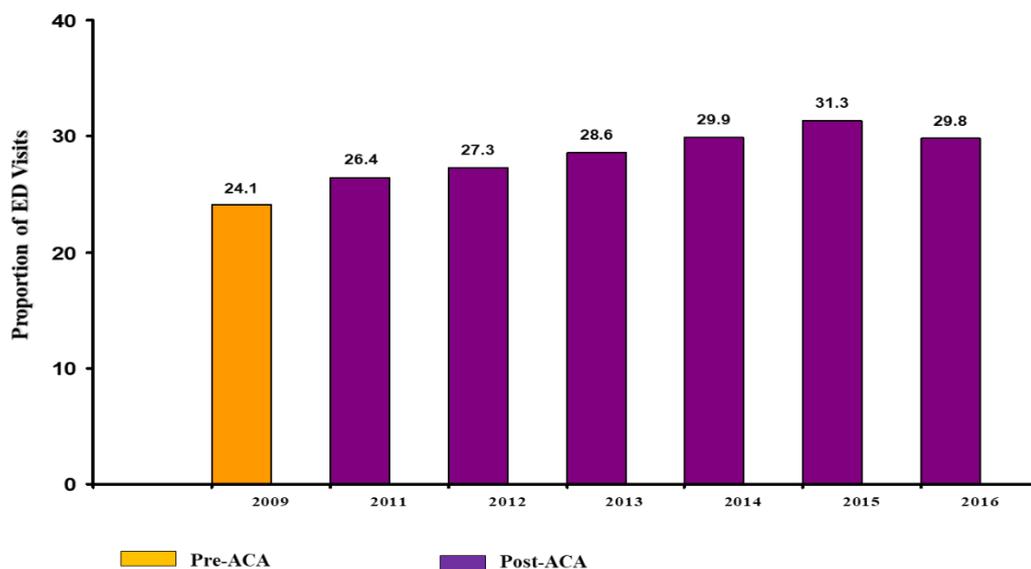


Figure 12: Proportion of Psychiatric-Related ED Visits for Adults 18-64

The proportion of psychiatric-related ED visits were analyzed for each of Post-ACA years 2011 to 2016 versus Pre-ACA 2009 for both adjusted and unadjusted analyses. The adjusted analysis was adjusted for covariates, age, sex, payer, and hospital region. All adjusted and unadjusted statistical analyses for the proportion of psychiatric-related ED visits were statistically significant for all Post-ACA years versus Pre-ACA. A graphical presentation of adjusted ORs is in Figure 13.

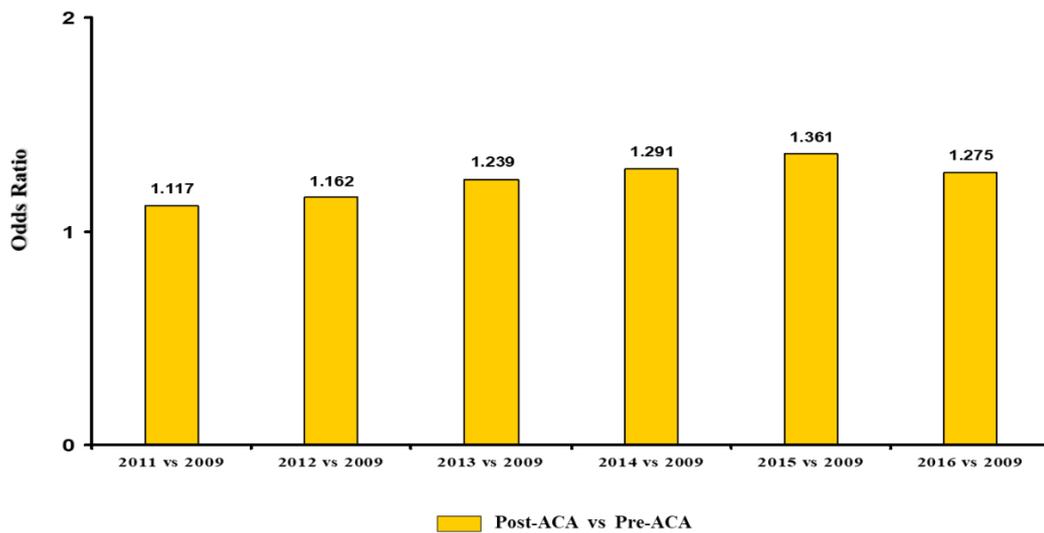


Figure 13: Adjusted Analysis of Proportion of Psychiatric-Related ED Visits

Table 22 shows the analysis of Post-ACA 2011 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA 2011 was 26.4% compared to 24.1% for Pre-ACA 2009. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits for post-ACA 2011 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) of the proportion of psychiatric-related ED visits were 1.117 (1.116, 1.119) for the adjusted analysis and 1.132 (1.130, 1.133) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both the adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits, the odds ratios were greater than 1 with an increase of 12% for the adjusted analysis and an

increase of 13% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.003 points from the upper limit to the lower limit for both analyses.

Table 22: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2011 vs 2009

| | Post-ACA (2011) N = 17,845,772 | Pre-ACA (2009) N = 17,645,539 |
|--------------------------------------|---|--|
| Psychiatric-Related ED Visits | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 4,717,856 (26.4) | 4,253,110 (24.1) |
| No | 13,127,916 (73.6) | 13,392,429 (75.9) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 (unadjusted): ACA | 1.132 (1.130, 1.133) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.117 (1.116, 1.119) | < 0.0001 |
| Age | 0.853 (0.852, 0.854) | < 0.0001 |
| Sex | 1.365 (1.363, 1.368) | < 0.0001 |
| Payer | 1.171 (1.170, 1.172) | < 0.0001 |
| Region | 1.509 (1.503, 1.514) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 23 shows the analysis of Post-ACA 2012 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA 2012 was 27.3% compared to 24.1% for Pre-ACA 2009. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits for Post-ACA 2012 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) of the proportion of psychiatric-related ED visits were 1.162 (1.160, 1.164) for the adjusted analysis and 1.180 (1.178, 1.182) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses, the odds ratios were greater than 1, with an increase of 16% for the adjusted analysis and an increase of 18% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.004 points from the upper limit to the lower limit for both analyses.

Table 23: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2012 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2012) N = 19,325,068 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,267,941 (27.3) | 4,253,110 (24.1) |
| No | 14,057,127 (72.7) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 (unadjusted): ACA | 1.180 (1.178, 1.182) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.162 (1.160, 1.164) | < 0.0001 |
| Age | 0.849 (0.848, 0.850) | < 0.0001 |
| Sex | 1.377 (1.375, 1.379) | < 0.0001 |
| Payer | 1.167 (1.166, 1.168) | < 0.0001 |
| Region | 1.451 (1.446, 1.456) | < 0.0001 |

¹Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 24 shows the analysis of Post-ACA 2013 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA 2013 versus Pre-ACA 2009 (28.6% vs. 24.1%) using logistic regression were statistically significant for both adjusted and unadjusted analyses (P <0.0001). The ORs (95% CI) of the proportion of psychiatric-related ED visits were 1.239 (1.237, 1.241) for the adjusted analysis and 1.260 (1.258, 1.262) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant (P <0.0001). For both the adjusted and unadjusted analyses, the odds ratios were greater than 1, with an increase of 24% for adjusted analysis and an increase of 26% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.004 points from the upper limit to the lower limit for both analyses.

Table 24: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2013 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2013) N = 18,412,805 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,261,875 (28.6) | 4,253,110 (24.1) |
| No | 13,150,930 (71.4) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 (unadjusted): ACA | 1.260 (1.258, 1.262) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.239 (1.237, 1.241) | < 0.0001 |
| Age | 0.845 (0.844, 0.846) | < 0.0001 |
| Sex | 1.386 (1.384, 1.388) | < 0.0001 |
| Payer | 1.152 (1.151, 1.153) | < 0.0001 |
| Region | 1.390 (1.386, 1.395) | < 0.0001 |

¹Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 25 shows the analysis of Post-ACA 2014 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA 2014 was 29.9% compared to 24.1% for Pre-ACA 2009. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits for the Post-ACA 2014 versus the Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) of the proportion of psychiatric-related ED visits were 1.291 (1.289, 1.293) for the adjusted analysis and 1.344 (1.342, 1.346) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both the adjusted and unadjusted analyses, the odds ratios were greater than 1, with an increase of 29% for adjusted analysis and an increase of 34% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.004 points from the upper limit to the lower limit for both analyses.

Table 25: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2014 vs 2009

| | Post-ACA (2014) N = 19,498,007 | Pre-ACA (2009) N = 17,645,539 |
|--------------------------------------|--|---|
| Psychiatric-Related ED Visits | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,832,444 (29.9) | 4,253,110 (24.1) |
| No | 13,665,563 (70.1) | 13,392,429 (75.9) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 (unadjusted): ACA | 1.344 (1.342, 1.346) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.291 (1.289, 1.293) | < 0.0001 |
| Age | 0.849 (0.849, 0.850) | < 0.0001 |
| Sex | 1.416 (1.413, 1.418) | < 0.0001 |
| Payer | 1.183 (1.182, 1.184) | < 0.0001 |
| Region | 1.351 (1.347, 1.356) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 26 shows the analysis of Post-ACA 2015 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA 2015 was 31.3% compared to 24.1% for Pre-ACA. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits for Post-ACA 2015 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) of the proportion of psychiatric-related ED visits were 1.361 (1.359, 1.363) for the adjusted

analysis and 1.432 (1.430, 1.434) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both the adjusted and unadjusted analyses, the odds ratios were greater than 1, with an increase of 36% for the adjusted analysis and an increase of 43% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.004 points from the upper limit to the lower limit for both analyses.

Table 26: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2015 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2015) N = 18,738,803 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,857,686 (31.3) | 4,253,110 (24.1) |
| No | 12,881,117 (68.7) | 13,392,429 (75.9) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 (unadjusted): ACA | 1.432 (1.430, 1.434) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.361 (1.359, 1.363) | < 0.0001 |
| Age | 0.854 (0.853, 0.855) | < 0.0001 |
| Sex | 1.419 (1.417, 1.421) | < 0.0001 |
| Payer | 1.191 (1.190, 1.192) | < 0.0001 |
| Region | 1.417 (1.412, 1.422) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 27 shows the analysis of Post-ACA 2016 versus Pre-ACA 2009. The proportion of psychiatric-related ED visits for Post-ACA was 29.8% compared to 24.1% for Pre-ACA 2009. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits for Post-ACA 2016 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.275 (1.273, 1.276) for the adjusted analysis and 1.338 (1.336, 1.340) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both the adjusted and unadjusted analyses, the odds ratios were greater than 1, with an increase of 28% for the adjusted analysis and an increase of 34% for the unadjusted analysis. Since the number of ED visits was very large, the

confidence interval was very small, with a difference of 0.004 points from the upper limit to the lower limit for both analyses.

Table 27: Analysis of Proportion of Psychiatric-Related Emergency Department Visits 2016 vs 2009

| | Post-ACA (2016) N = 20,073,238 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| Psychiatric-Related ED Visits | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,986,274 (29.8) | 4,253,110 (24.1) |
| No | 14,086,964 (70.2) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 (unadjusted): ACA | 1.338 (1.336, 1.340) | <0.0001 |
| Model 2 (adjusted) | | |
| ACA | 1.275 (1.273, 1.276) | < 0.0001 |
| Age | 0.852 (0.851, 0.853) | < 0.0001 |
| Sex | 1.421 (1.419, 1.424) | < 0.0001 |
| Payer | 1.201 (1.200, 1.202) | < 0.0001 |
| Region | 1.231 (1.227, 1.235) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

The odds of psychiatric-related ED visits increased for Post-ACA 2011 to 2016 between 12% to 36% compared to Pre-ACA 2009.

4.5 Specific Aim 2

The objective of Aim 2 was to assess the association between the ACA and the characteristics of psychiatric patients admitted to ED. These patient characteristics were age (age categories: 18-25, 26-49, and 50-64), sex/gender (male, female), payer (Medicare, Medicaid, private and uninsured), and hospital region (urban, rural). The endpoints were the proportion of psychiatric-related ED visits for each category of age, sex/gender, payer, and hospital region. The analysis methodology for the comparison of the Post-ACA to Pre-ACA in the proportion of psychiatric-related ED visits for each category of age, sex/gender, payer and hospital region was Chi-Square (χ^2) statistics.

Table 28 shows the analysis of psychiatric-related ED visits by age for each of Post-ACA years 2011 to 2016 and Pre-ACA 2009. For each age category of adults aged 18-25, 26-49, and 50-64, the proportion of adults who had psychiatric-related ED visits were statistically significant ($P < 0.0001$) for each comparison of Post-ACA, 2011 to

2016 versus Pre-ACA 2009. The number of psychiatric-related ED visits for adults 18-25, 26-49, and 50-64 were higher for each of Post-ACA years, 2011 to 2016 than Pre-ACA 2009.

Table 28: Analysis of Patient Characteristics for Psychiatric-Related ED Visits by Age

| Post-ACA vs Pre-ACA | | Psychiatric-Related ED Visits | | | |
|---------------------|----------------------|-------------------------------|----------------|------------------|------------------|
| | | N | 18 ≤ age ≤ 25 | 26 ≤ age ≤ 49 | 50 ≤ age ≤ 64 |
| 2011 vs 2009 | 2011 | 4,717,856 | 823,081 (17.4) | 2,560,003 (54.3) | 1,334,772 (28.3) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |
| 2012 vs 2009 | 2012 | 5,267,941 | 899,050 (17.1) | 2,839,605 (53.9) | 1,529,286 (29.0) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |
| 2013 vs 2009 | 2013 | 5,261,875 | 874,206 (16.6) | 2,820,459 (53.6) | 1,567,210 (29.8) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |
| 2014 vs 2009 | 2014 | 5,832,444 | 945,765 (16.2) | 3,107,914 (53.3) | 1,778,765 (30.5) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |
| 2015 vs 2009 | 2015 | 5,857,686 | 920,502 (15.7) | 3,135,229 (53.5) | 1,801,955 (30.8) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |
| 2016 vs 2009 | 2016 | 5,986,274 | 910,796 (15.2) | 3,211,163 (53.6) | 1,864,315 (31.1) |
| | 2009 | 4,253,110 | 749,855 (17.6) | 2,363,199 (55.6) | 1,140,056 (26.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 |

¹P-value using Chi-Square test

Table 29 shows the analysis of the proportion of psychiatric-related ED visits by sex. The analysis of the proportion of psychiatric-related ED visits for each comparison of Post-ACA years, 2011 to 2016 except 2012 versus Pre-ACA 2009 were statistically significant for both males and females ($P < 0.0001$). The comparisons of the Post-ACA 2012 versus the Pre-ACA 2009 for both males and females were not statistically significant ($P > 0.05$). The number of psychiatric-related ED visits were higher for each of Post-ACA years, 2011 to 2016 than Pre-ACA 2009 for both males and females.

Table 29: Analysis of Patient Characteristics for Psychiatric-Related ED Visits by Sex

| Year | | Psychiatric-Related ED Visits | | |
|---------------------|----------------------|-------------------------------|------------------|------------------|
| | | N | Male | Female |
| 2011 vs 2009 | 2011 | 4,717,856 | 2,267,410 (48.1) | 2,449,362 (51.9) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2012 vs 2009 | 2012 | 5,267,941 | 2,536,702 (48.2) | 2,731,029 (51.8) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | 0.1599 | 0.1599 |
| 2013 vs 2009 | 2013 | 5,261,875 | 2,553,582 (48.5) | 2,708,100 (51.5) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2014 vs 2009 | 2014 | 5,832,444 | 2,858,608 (49.0) | 2,973,647 (51.0) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2015 vs 2009 | 2015 | 5,857,686 | 2,884,558 (49.2) | 2,972,285 (50.8) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2016 vs 2009 | 2016 | 5,986,274 | 2,939,018 (49.1) | 3,046,072 (50.9) |
| | 2009 | 4,253,110 | 2,048,915 (48.2) | 2,201,833 (51.8) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |

¹P-value using Chi-Square test

Table 30 shows the analysis of the proportion of psychiatric-related ED visits for all payers, Medicare, Medicaid, private and uninsured. These analyses showed that there were statistically significant differences in each of Post-ACA years, 2011 to 2016 compared to Pre-ACA 2009 (P<0.0001). For the Medicare and Medicaid payers, the proportions of psychiatric-related ED visits were higher in Post-ACA 2011 to 2016 than Pre-ACA 2009. The proportions of psychiatric-related ED visits were lower in Post-ACA 2011 to 2016 than Pre-ACA 2009 for the private payer and for uninsured payers, it was higher in Post-ACA 2012 to 2013 and lower in Post-ACA 2011 and 2014 to 2016 than Pre-ACA. The number of psychiatric-related ED visits were higher in Post-ACA 2011 to 2016 than Pre-ACA for Medicare, Medicaid and Private payers. For the uninsured, the number of psychiatric-related ED visits were higher in Post-ACA 2011 to 2014 and lower in 2015 and 2016 than Pre-ACA 2009.

Table 30: Analysis of Patient Characteristics for Psychiatric-Related ED Visits by Payer

| Year | | Psychiatric-Related ED Visits | | | | |
|--------------------|----------------------|-------------------------------|----------------|------------------|------------------|------------------|
| | | N | Medicare | Medicaid | Private | Uninsured |
| 2011 vs 2009 | 2011 | 4,717,856 | 696,800 (14.8) | 1,310,278 (27.9) | 1,188,336 (25.3) | 1,503,730 (32.0) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 2012 vs 2009 | 2012 | 5,267,941 | 798,249 (15.2) | 1,466,945 (27.9) | 1,250,220 (23.8) | 1,743,569 (33.1) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 2013 vs 2009 | 2013 | 5,261,875 | 798,598 (15.2) | 1,445,845 (27.5) | 1,240,697 (23.6) | 1,765,480 (33.6) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 2014 vs 2009 | 2014 | 5,832,444 | 893,412 (15.3) | 2,001,397 (34.4) | 1,407,246 (24.2) | 1,519,300 (26.1) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 2015 vs 2009 | 2015 | 5,857,686 | 880,447 (15.0) | 2,076,044 (35.5) | 1,508,765 (25.8) | 1,383,423 (23.6) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| 2016 vs 2009 | 2016 | 5,986,274 | 900,217 (15.1) | 2,163,754 (36.2) | 1,551,449 (25.9) | 1,362,548 (22.8) |
| | 2009 | 4,253,110 | 594,888 (14.0) | 1,080,543 (25.5) | 1,161,704 (27.4) | 1,397,543 (33.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 | <0.0001 | <0.0001 |

¹P-value using Chi-Square test

Table 31 shows the analysis of the proportion of psychiatric-related ED visits by hospital region. For urban and rural hospitals, the analyses of the proportion of psychiatric-related ED visits for each of Post-ACA years, 2011 to 2016 compared to Pre-ACA 2009 were statistically significant ($P < 0.0001$). For the urban hospitals, the proportion of psychiatric-related ED visits were higher in Post-ACA 2011 to 2015 and lower for 2016 than Pre-ACA 2009. The proportion of psychiatric-related ED visits were lower in Post-ACA 2011 to 2015 and higher for Post-ACA 2016 than Pre-ACA 2009 for the rural hospitals.

Table 31: Analysis of Patient Characteristics for Psychiatric-Related ED Visits by Region

| Year | | Psychiatric-Related ED Visits | | |
|--------------------|----------------------|-------------------------------|------------------|---------------|
| | | N | Urban | Rural |
| 2011 vs 2009 | 2011 | 4,717,856 | 4,503,377 (95.4) | 214,479 (4.6) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2012 vs 2009 | 2012 | 5,267,941 | 5,043,931 (95.7) | 224,010 (4.3) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2013 vs 2009 | 2013 | 5,261,875 | 5,010,535 (95.2) | 251,340 (4.8) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2014 vs 2009 | 2014 | 5,832,444 | 5,562,407 (95.4) | 270,037 (4.6) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2015 vs 2009 | 2015 | 5,857,686 | 5,639,622 (96.3) | 218,064 (3.7) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |
| 2016 vs 2009 | 2016 | 5,986,274 | 5,626,675 (94.0) | 359,599 (6.0) |
| | 2009 | 4,253,110 | 4,041,282 (95.0) | 211,828 (5.0) |
| | P-value ¹ | N/A | <0.0001 | <0.0001 |

¹P-value using Chi-Square test

4.6 Specific Aim 3

The objective of this Aim was to evaluate the association between the ACA and the ED visits with the disposition of Treat-and-Release of psychiatric patients admitted to ED. The endpoint was the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release. The comparison of interest was the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release for each of Post-ACA years, 2011 to 2016 with Pre-ACA 2009. The analysis methodology was using logistic regression adjusting for covariates. The covariates were age category in years, $18 \leq \text{age} \leq 25$, $26 \leq \text{age} \leq 49$ and $50 \leq \text{age} \leq 64$, sex/gender (male, female), payer (Medicare, Medicaid, private, uninsured), and hospital region (urban, rural). The proportion of psychiatric-related ED visits with disposition of Treat-and-Release were analyzed for both adjusted and unadjusted analyses for each of Post-ACA years, 2011 to 2016 versus Pre-ACA 2009. The ORs (95% CI) and p-value (P) using χ^2 statistics were reported.

Summary of the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release along with the change in the number and percentage of ED visits from Pre-ACA to Post-ACA is in Table 32. The proportion of psychiatric-related ED disposition of Treat-and-Release increased from 73.4% in Pre-ACA 2009 to Post-ACA years, 75.7% in 2011, 76.7% in 2012, 77.5% in 2013, 77.7% in 2014, 72.5% in 2015 and 78.9% in 2016. The proportion of ED visits with the disposition of Treat-and-Release was lower in Post-ACA 2015 than all other Post-ACA years. The change from Pre-ACA in percentage of the psychiatric-related ED disposition of Treat-and-Release was ranging from 2.3% to 5.6% for Post-ACA 2011 to 2014 and 2016. The change from Pre-ACA in percentage had a decrease of 0.9% in Post-ACA 2015, with the proportion

of ED disposition of Treat-and-Release was 72.5% lower than Pre-ACA (73.4%) and other Post-ACA years (75.7% to 78.9%). Although the change from the Post-ACA to the Pre-ACA in the percentage of the proportion of psychiatric-related ED visits disposition of Treat-and-Release was small, between -0.9% to 5.6%, the change in the number of Treat-and-Release ED visits continued to increase by more than 450,000 in 2011, 920,000 in 2012, 956,000 in 2013, 1.4 million in 2014, 1.1 million in 2015 and 1.6 million in 2016.

Table 32: Summary of Psychiatric-Related ED Disposition of Treat-and-Release

| Year | | Psychiatric-Related ED Visit Disposition, n (%) | | |
|----------|------|---|----------------------|---------------------|
| | | N | Treated and Released | Change from Pre-ACA |
| Pre-ACA | 2009 | 4,253,110 | 3,120,641 (73.4) | N/A |
| Post-ACA | 2011 | 4,717,856 | 3,570,582 (75.7) | 449,941 (2.3) |
| | 2012 | 5,267,941 | 4,040,346 (76.7) | 919,705 (3.3) |
| | 2013 | 5,261,875 | 4,077,050 (77.5) | 956,409 (4.1) |
| | 2014 | 5,832,444 | 4,529,512 (77.7) | 1,408,871 (4.3) |
| | 2015 | 5,857,686 | 4,248,209 (72.5) | 1,127,568 (-0.9) |
| | 2016 | 5,986,274 | 4,725,090 (78.9) | 1,604,449 (5.6) |

Note: Percentages are based on total visits, N.

A graphical presentation of the proportion of psychiatric-related ED disposition of Treat-and-Release is in Figure 14.

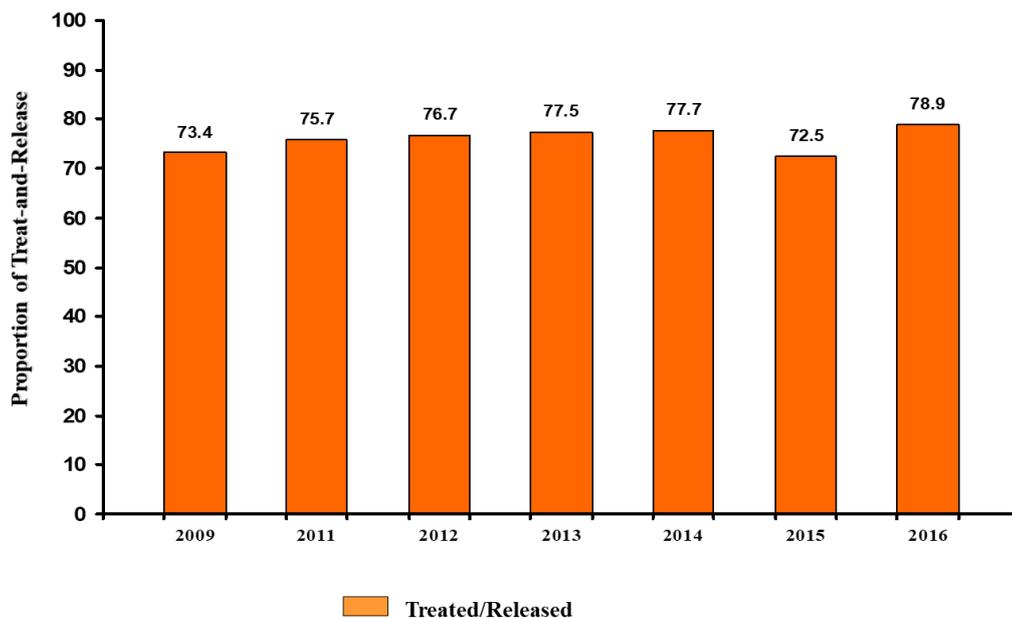


Figure 14: Proportion of Psychiatric-Related ED Disposition of Treat-and-Release

Figure 15 shows the graphical presentation of the adjusted ORs for the proportion of psychiatric-related ED disposition of Treat-and-Release. The proportion of psychiatric-related ED disposition of Treat-and-Release were analyzed for each of Post-ACA years, 2011 to 2016 versus Pre-ACA 2009 for both adjusted and unadjusted analyses. All statistical analyses of the proportion of psychiatric-related ED visits disposition of Treat-and-Release were statistically significant for all comparisons of Post-ACA versus Pre-ACA ($P < 0.0001$). The odds of psychiatric-related ED visits disposition of Treat-and-Release increased from 17% to 54% for Post-ACA 2011 to 2016 except 2015 compared to Pre-ACA 2009. In Post-ACA 2015, the odds of ED disposition of Treat-and-Release was about the same for Post-ACA 2015 and Pre-ACA 2009. In Post-ACA 2015, the percentage of ED visits disposition for other reasons was 6.9%, much higher than Pre-ACA 2009 (0.3%) and other Post-ACA years (2011: 0.3%, 2012 to 2016: 0.2%). However, in Post-ACA 2015, the ED visits disposition of Treat-and-Release was much higher than Admitted/Transferred to hospital (72.5% versus 20.5%).

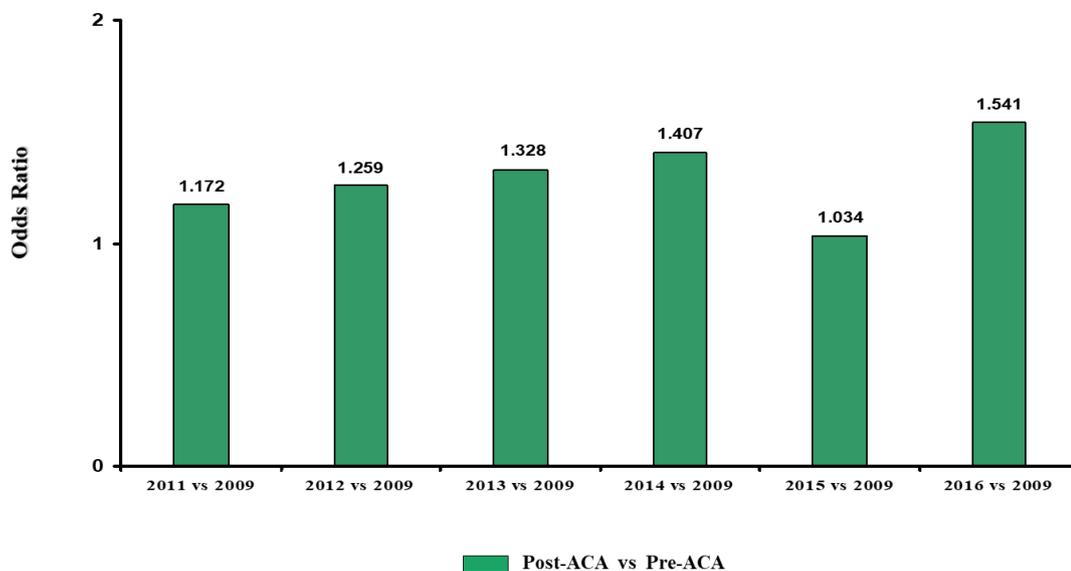


Figure 15: Adjusted Analysis of Proportion of Psychiatric-Related ED Disposition of Treat-and-Release

Table 33 shows the analysis of the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release for Post-ACA 2011 versus Pre-ACA 2009. The proportion of psychiatric-related ED with the disposition of Treat-and-Release was 75.7% for Post-ACA 2011 and 73.4% for Pre-ACA 2009, an increase of 2.3%, or 450,000 visits. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED with the disposition of Treat-and-Release for Post-ACA 2011 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.172 (1.168, 1.176) for the adjusted analysis and 1.129 (1.126, 1.133) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED with the disposition of Treat-and-Release, the odds ratios were greater than 1, with an increase of 17% for the adjusted analysis and an increase of 13% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.008 and 0.007 points from upper limit to lower limit for the adjusted and unadjusted analyses, respectively.

Table 33: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2011 vs 2009

| Psychiatric-Related ED Visits with Treat-and-release Disposition | Post-ACA (2011) N = 4,717,856 | Pre-ACA (2009) N = 4,253,110 |
|--|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 3,570,582 (75.7) | 3,120,641 (73.4) |
| No | 1,147,274 (24.3) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 ACA | 1.129 (1.126, 1.133) | <0.0001 |
| Model 2 | | |
| ACA | 1.172 (1.168, 1.176) | < 0.0001 |
| Age | 2.100 (2.095, 2.105) | < 0.0001 |
| Sex | 0.767 (0.764, 0.769) | < 0.0001 |
| Payer | 0.778 (0.777, 0.779) | < 0.0001 |
| Region | 0.666 (0.661, 0.672) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 34 shows the analysis of the proportion of psychiatric-related ED visits disposition of Treat-and-Release for Post-ACA 2012 versus Pre-ACA 2009. The

proportion of psychiatric-related ED disposition of Treat-and-Release was 76.7% for Post-ACA 2012 and 73.4% for Pre-ACA 2009, an increase of 3.3%, or 920,000 visits. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release for Post-ACA 2012 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.259 (1.255, 1.263) for the adjusted analysis and 1.194 (1.191, 1.198) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release, the odds ratios were greater than 1, with an increase of 26% for the adjusted analysis and an increase of 19% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.008 and 0.007 points from upper limit to lower limit for the adjusted and unadjusted analyses, respectively.

Table 34: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2012 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2012) | Pre-ACA (2009) |
|--|----------------------------|----------------------------|
| | N = 5,267,941 | N = 4,253,110 |
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,040,346 (76.7) | 3,120,641 (73.4) |
| No | 1,227,595 (23.3) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.194 (1.191, 1.198) | <0.0001 |
| Model 2 | | |
| ACA | 1.259 (1.255, 1.263) | < 0.0001 |
| Age | 2.083 (2.078, 2.088) | < 0.0001 |
| Sex | 0.768 (0.766, 0.771) | < 0.0001 |
| Payer | 0.785 (0.784, 0.787) | < 0.0001 |
| Region | 0.634 (0.629, 0.640) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 35 shows the analysis of the proportion of psychiatric-related ED visits disposition of Treat-and-Release for Post-ACA 2013 versus Pre-ACA 2009. The proportion of psychiatric-related ED disposition of Treat-and-Release was 77.5% for Post-ACA 2013 and 73.4% for Pre-ACA 2009, an increase of 4.1%, or 960,000 visits. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED

disposition of Treat-and-Release for Post-ACA 2013 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.328 (1.324, 1.333) for the adjusted analysis and 1.249 (1.245, 1.252) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release, the odds ratios were greater than 1, with an increase of 33% for the adjusted analysis and an increase of 25% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.009 points and 0.007 from upper limit to lower limit for the adjusted and unadjusted analyses, respectively.

Table 35: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2013 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2013) N = 5,261,875 | Pre-ACA (2009) N = 4,253,110 |
|--|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,077,050 (77.5) | 3,120,641 (73.4) |
| No | 1,184,825 (22.5) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.249 (1.245, 1.252) | <0.0001 |
| Model 2 | | |
| ACA | 1.328 (1.324, 1.333) | < 0.0001 |
| Age | 2.059 (2.054, 2.064) | < 0.0001 |
| Sex | 0.771 (0.768, 0.773) | < 0.0001 |
| Payer | 0.783 (0.782, 0.785) | < 0.0001 |
| Region | 0.629 (0.624, 0.634) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 36 shows the analysis of the proportion of psychiatric-related ED visits disposition of Treat-and-Release for Post-ACA 2014 versus Pre-ACA 2009. The proportion of psychiatric-related ED disposition of Treat-and-Release was 77.7% for Post-ACA 2014 and 73.4% for Pre-ACA 2009, an increase of 4.3% or 1.4 million visits. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release for Post-ACA 2014 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.407 (1.403, 1.411) for the adjusted analysis and 1.262 (1.258, 1.265) for the

unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release, the odds ratios were greater than 1, with an increase of 41% for the adjusted analysis and an increase of 26% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.008 and 0.007 points from upper limit to lower limit for the adjusted and unadjusted analyses, respectively.

Table 36: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2014 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2014) N = 5,832,444 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,529,512 (77.7) | 3,120,641 (73.4) |
| No | 1,302,932 (22.3) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 ACA | 1.262 (1.258, 1.265) | <0.0001 |
| Model 2 | | |
| ACA | 1.407 (1.403, 1.411) | < 0.0001 |
| Age | 2.045 (2.040, 2.050) | < 0.0001 |
| Sex | 0.772 (0.769, 0.774) | < 0.0001 |
| Payer | 0.769 (0.768, 0.770) | < 0.0001 |
| Region | 0.656 (0.651, 0.661) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 37 shows the analysis of the proportion of psychiatric-related ED visits disposition of Treat-and-Release for Post-ACA 2015 versus Pre-ACA 2009. The proportion of psychiatric-related ED disposition of Treat-and-Release was 72.5% for Post-ACA 2015 and 73.4% for Pre-ACA 2009, a decrease of 0.9%, but with an increase of more than 1.1 million visits in 2015. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release for Post-ACA 2015 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.034 (1.031, 1.037) for the adjusted analysis and 0.958 (0.955, 0.961) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-

and-Release, the odds ratios were around 1, adjusted OR of 1.03 and unadjusted OR of 0.96. This results indicate that the odds of ED disposition of Treat-and-Release was about the same for Post-ACA 2015 versus Pre-ACA 2009. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.006 points from upper limit to lower limit for both the adjusted and unadjusted analyses.

Table 37: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2015 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2015) N = 5,857,686 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,248,209 (72.5) | 3,120,641 (73.4) |
| No | 1,609,477 (27.5) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 ACA | 0.958 (0.955, 0.961) | <0.0001 |
| Model 2 ACA | 1.034 (1.031, 1.037) | < 0.0001 |
| Age | 1.895 (1.890, 1.899) | < 0.0001 |
| Sex | 0.827 (0.824, 0.829) | < 0.0001 |
| Payer | 0.876 (0.875, 0.877) | < 0.0001 |
| Region | 0.671 (0.665, 0.676) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 38 shows the analysis of the proportion of psychiatric-related ED visits disposition of Treat-and-Release for Post-ACA 2016 versus Pre-ACA 2009. The proportion of psychiatric-related ED disposition of Treat-and-Release was 78.9% for Post-ACA 2016 and 73.4% for Pre-ACA 2009, an increase of 5.6%, or 1.6 million visits. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release for Post-ACA 2016 versus Pre-ACA 2009 using logistic regression were statistically significant ($P < 0.0001$). The ORs (95% CI) were 1.541 (1.536, 1.545) for the adjusted analysis and 1.360 (1.356, 1.364) for the unadjusted analysis. All covariates, age, sex, payer, and hospital region were statistically significant ($P < 0.0001$). For both adjusted and unadjusted analyses of the proportion of psychiatric-related ED disposition of Treat-and-Release, the odds ratios were greater than 1, with an increase of 54% for the adjusted analysis and an increase

of 36% for the unadjusted analysis. Since the number of ED visits was very large, the confidence interval was very small, with a difference of 0.009 and 0.008 points from upper limit to lower limit for the adjusted and unadjusted analyses, respectively.

Table 38: Analysis of Proportion of Psychiatric-Related Emergency Department Disposition of Treat-and-Release, 2016 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2016) | Pre-ACA (2009) |
|--|----------------------------|----------------------------|
| | N = 5,986,274 | N = 4,253,110 |
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,725,090 (78.9) | 3,120,641 (73.4) |
| No | 1,261,184 (21.1) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.360 (1.356, 1.364) | <0.0001 |
| Model 2 | | |
| ACA | 1.541 (1.536, 1.545) | < 0.0001 |
| Age | 2.046 (2.041, 2.051) | < 0.0001 |
| Sex | 0.778 (0.776, 0.781) | < 0.0001 |
| Payer | 0.785 (0.783, 0.786) | < 0.0001 |
| Region | 0.655 (0.651, 0.660) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

4.7 Psychiatric Diagnosis

After the mapping of ICD-10 codes into the ICD-9 codes, all psychiatric diagnoses were coded into 7 diagnosis categories or grouping for Pre-ACA 2009 and all Post-ACA years, 2011 to 2016. The psychiatric diagnoses were grouped into Dementia/Delusional/Transient/Persistent (Dementia), Drug and Alcohol Dependence (Drug/Alcohol), Schizophrenic and Other Psychoses (Schizophrenic), Depressive and Episodic Mood (Depressive), Anxiety, dissociative and somatoform (Anxiety), Acute and Adjustment Reaction to Stress (Stress), and Other diagnoses (Other).

Table 39 shows the summary of all psychiatric diagnoses for the psychiatric-related ED visits for Pre-ACA 2009 and Post-ACA 2011 to 2016. Among all psychiatric diagnoses, the majority of diagnoses were for the Drug/Alcohol disorders, followed by Depressive and Anxiety disorders. Drug/Alcohol disorders for Pre-ACA 2009 was 58.7% and ranging from 57.1% to 60.2% Post-ACA 2011 to 2016. Depressive disorders had the second-highest incidence rate, 16.5% in Pre-ACA 2009 and 15.3% in Post-

ACA 2016, followed by Anxiety disorders with 13.6% for Pre-ACA 2009 and ranging from 14.4% to 15.0% for Post-ACA 2011 to 2016. From Pre-ACA 2009 to Post-ACA 2016, the proportion of psychiatric diagnoses for Schizophrenic disorders was from 3.5% to 4.3%, for Dementia was from 0.7% to 0.8%, and for Stress was from 1.8% to 2.1%. Despite an increase or a decrease in the proportion of psychiatric diagnosis, the number of all psychiatric diagnoses of Drug/Alcohol, Depressive, Anxiety, Schizophrenic, Dementia, and Stress disorders were higher in Post-ACA years 2011 to 2016 than Pre-ACA 2009.

Table 39: Summary of All Psychiatric Diagnosis

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|------------------|---------------------|---------------------|------------------|------------------|
| | | N | Dementia | Drug/ Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 5,625,083 | 46,134 (0.8) | 3,300,614 (58.7) | 240,212 (4.3) | 929,717 (16.5) | 763,539 (13.6) | 101,583 (1.8) | 243,284 (4.3) |
| | 2011 | 6,289,383 | 46,828 (0.7) | 3,673,871 (58.4) | 253,665 (4.0) | 1,018,793 (16.2) | 907,779 (14.4) | 122,254 (1.9) | 266,193 (4.2) |
| Post-ACA | 2012 | 7,205,783 | 50,797 (0.7) | 4,138,853 (57.4) | 290,191 (4.0) | 1,247,230 (17.3) | 1,041,649 (14.5) | 139,164 (1.9) | 297,899 (4.1) |
| | 2013 | 7,329,616 | 51,286 (0.7) | 4,187,794 (57.1) | 293,221 (4.0) | 1,274,297 (17.4) | 1,079,079 (14.7) | 143,488 (2.0) | 300,451 (4.1) |
| | 2014 | 8,197,762 | 60,002 (0.7) | 4,682,324 (57.1) | 342,126 (4.2) | 1,397,360 (17.0) | 1,215,822 (14.8) | 164,162 (2.0) | 335,966 (4.1) |
| | 2015 | 8,313,408 | 59,351 (0.7) | 4,863,755 (58.5) | 309,408 (3.7) | 1,355,229 (16.3) | 1,239,372 (14.9) | 166,743 (2.0) | 319,550 (3.8) |
| | 2016 | 8,835,667 | 62,013 (0.7) | 5,322,806 (60.2) | 313,438 (3.5) | 1,354,876 (15.3) | 1,322,450 (15.0) | 184,628 (2.1) | 275,456 (3.1) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

Table 40 shows the summary of all psychiatric diagnoses for the psychiatric-related ED disposition of Treat-and-Release. Among the psychiatric-related ED visits with the disposition of Treat-and-Release, Drug/Alcohol dependence was 62.2% in Pre-ACA 2009, and for Post-ACA 2011 to 2016 were 61.6% in 2011, 60.4% in 2012, 60.2% in 2013, 60.6% in 2014, 61.7% in 2015, and 63.5% in 2016. Other psychiatric disorders for Pre-ACA 2009 and Post-ACA 2011 to 2016 were ranging from 13.5% to 15.5% for Depressive, from 14.2% to 15.0% for Anxiety, from 3.1% to 3.4% for Schizophrenic, from 1.6% to 1.8% for Stress, and for Dementia from 0.4% to 0.5%. The number of psychiatric diagnoses increased for all Post-ACA years compared to Pre-ACA.

Table 40: Summary of Psychiatric Diagnosis

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|------------------|-------------------|-------------------|------------------|------------------|
| | | N | Dementia | Drug/ Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 16,680 (0.4) | 2,349,758 (62.2) | 127,707 (3.4) | 548,946 (14.5) | 536,656 (14.2) | 59,025 (1.6) | 140,366 (3.7) |
| Post-ACA | 2011 | 4,402,230 | 18,820 (0.4) | 2,712,319 (61.6) | 143,347 (3.3) | 630,444 (14.3) | 653,982 (14.9) | 76,600 (1.7) | 166,718 (3.8) |
| | 2012 | 5,115,447 | 21,548 (0.4) | 3,092,459 (60.4) | 171,496 (3.3) | 791,672 (15.5) | 756,593 (14.8) | 89,836 (1.8) | 191,843 (3.7) |
| | 2013 | 5,248,833 | 22,162 (0.4) | 3,161,741 (60.2) | 175,353 (3.3) | 815,228 (15.5) | 785,344 (15.0) | 93,805 (1.8) | 195,200 (3.7) |
| | 2014 | 5,845,570 | 25,304 (0.4) | 3,543,056 (60.6) | 200,217 (3.4) | 878,067 (15.0) | 876,447 (15.0) | 105,689 (1.8) | 216,790 (3.7) |
| | 2015 | 5,566,915 | 24,458 (0.4) | 3,431,770 (61.7) | 180,326 (3.2) | 806,453 (14.5) | 828,418 (14.9) | 101,845 (1.8) | 193,645 (3.5) |
| | 2016 | 6,361,258 | 29,627 (0.5) | 4,041,312 (63.5) | 196,329 (3.1) | 859,288 (13.5) | 947,087 (14.9) | 117,057 (1.8) | 170,558 (2.7) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For ED visits with the disposition of Treat-and Release, Drug/Alcohol disorders were higher than other psychiatric disorders for all age groups, followed by Depressive and Anxiety disorders. The proportion of Drug/Alcohol, Depressive and Anxiety disorders were higher for the 26-49 age group than 18-25 and 50-64 age groups. Summary tables of psychiatric disorders for the Treat-and-Release ED visits by age are in Tables 41, 42 and 43.

For adults 18-25, the proportion of psychiatric diagnosis of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 13.2% in Pre-ACA 2009, and decreased over time for the Post-ACA 2011 to 2016, with 12.7% in 2011, and 10.7% in 2016. The proportion of Depressive disorders was 2.5% for Pre-ACA 2009 and decreased over time from 2.4% in Post-ACA 2011 to 2.0% in 2016. The proportion of Anxiety disorders was 2.6% for Pre-ACA 2009 and slightly decreased from 2.5% in Post-ACA 2011 to 2.3% in 2016.

Table 41: Summary of Psychiatric Diagnosis by Age: Age 18 to 25

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|-------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 1,658 (0.04) | 499,687 (13.2) | 17,534 (0.5) | 93,085 (2.5) | 96,777 (2.6) | 12,831 (0.3) | 44,335 (1.2) |
| Post-ACA | 2011 | 4,402,230 | 1,845 (0.04) | 558,429 (12.7) | 20,239 (0.5) | 104,369 (2.4) | 112,386 (2.5) | 16,049 (0.4) | 54,937 (1.2) |
| | 2012 | 5,115,447 | 2,137 (0.04) | 614,476 (12.0) | 24,749 (0.5) | 125,375 (2.4) | 127,664 (2.5) | 18,255 (0.4) | 63,954 (1.2) |
| | 2013 | 5,248,833 | 2,215 (0.04) | 601,638 (11.5) | 24,508 (0.5) | 123,033 (2.3) | 125,974 (2.4) | 18,555 (0.3) | 64,782 (1.2) |
| | 2014 | 5,845,570 | 2,470 (0.04) | 647,380 (11.1) | 27,891 (0.5) | 133,276 (2.3) | 142,033 (2.4) | 19,761 (0.3) | 71,423 (1.2) |
| | 2015 | 5,566,915 | 2,491 (0.04) | 603,182 (10.8) | 24,733 (0.4) | 120,988 (2.2) | 132,197 (2.4) | 18,148 (0.3) | 63,090 (1.1) |
| | 2016 | 6,361,258 | 2,987 (0.05) | 682,021 (10.7) | 26,123 (0.4) | 127,978 (2.0) | 148,752 (2.3) | 21,280 (0.3) | 58,102 (0.9) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For adults 26-49, the proportion of psychiatric diagnosis of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 36.9% in Pre-ACA 2009, decreased over time for Post-ACA 2011 to 2014, with 35.8% in 2011, and 34.8% in 2014, and increased to 35.4% in 2015 and 36.8% in 2016. The proportion of Depressive disorders was 8.6% for Pre-ACA 2009, decreased to 8.1% in Post-ACA 2011 and 7.3% in 2016. The proportion of Anxiety disorders was 8.4% for Pre-ACA 2009, increased to 8.7% in Post-ACA 2011 and decreased to 8.4% in 2016.

Table 42: Summary of Psychiatric Diagnosis by Age: Age 26 to 49

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|------------------|------------------|------------------|-----------------|------------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 6,060 (0.2) | 1,395,014 (36.9) | 73,162 (1.9) | 324,508 (8.6) | 316,475 (8.4) | 34,172 (0.9) | 71,563 (1.9) |
| Post-ACA | 2011 | 4,402,230 | 6,419 (0.1) | 1,577,290 (35.8) | 78,912 (1.8) | 358,186 (8.1) | 381,079 (8.7) | 44,116 (1.0) | 82,580 (1.9) |
| | 2012 | 5,115,447 | 7,381 (0.1) | 1,784,441 (34.9) | 93,729 (1.8) | 445,475 (8.7) | 437,441 (8.5) | 51,884 (1.0) | 94,123 (1.8) |
| | 2013 | 5,248,833 | 7,666 (0.1) | 1,818,358 (34.6) | 96,105 (1.8) | 455,742 (8.7) | 452,681 (8.6) | 54,572 (1.0) | 95,983 (1.8) |
| | 2014 | 5,845,570 | 8,767 (0.1) | 2,032,257 (34.8) | 109,394 (1.9) | 482,936 (8.3) | 499,319 (8.5) | 62,216 (1.1) | 106,663 (1.8) |
| | 2015 | 5,566,915 | 9,010 (0.2) | 1,970,248 (35.4) | 99,092 (1.8) | 437,681 (7.9) | 467,566 (8.4) | 60,377 (1.1) | 95,942 (1.7) |
| | 2016 | 6,361,258 | 10,985 (0.2) | 2,342,948 (36.8) | 111,204 (1.7) | 462,448 (7.3) | 535,033 (8.4) | 69,181 (1.1) | 82,901 (1.3) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For adults 50-64, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 12.0% in Pre-ACA 2009, and increased over time for Post-ACA 2011 to 2016, with 13.1% in 2011, to 14.8% in 2014 and 16.0% in 2016. The proportion of Depressive disorders was 3.5%

in Pre-ACA 2009 and increased from 3.8% in Post-ACA 2011 and 4.2% in 2016. The proportion of Anxiety disorders was 3.3% for Pre-ACA 2009 and increased from 3.6% in Post-ACA 2011 to 4.1% in 2016.

Table 43: Summary of Psychiatric Diagnosis by Age: Age 50 to 64

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 8,962 (0.2) | 455,057 (12.0) | 37,011 (1.0) | 131,353 (3.5) | 123,404 (3.3) | 12,022 (0.3) | 24,468 (0.6) |
| Post-ACA | 2011 | 4,402,230 | 10,556 (0.2) | 576,600 (13.1) | 44,196 (1.0) | 167,889 (3.8) | 160,517 (3.6) | 16,435 (0.4) | 29,201 (0.7) |
| | 2012 | 5,115,447 | 12,030 (0.2) | 693,542 (13.6) | 53,018 (1.0) | 220,822 (4.3) | 191,488 (3.7) | 19,697 (0.4) | 33,766 (0.7) |
| | 2013 | 5,248,833 | 12,281 (0.2) | 741,745 (14.1) | 54,740 (1.0) | 236,453 (4.5) | 206,689 (3.9) | 20,678 (0.4) | 34,435 (0.7) |
| | 2014 | 5,845,570 | 14,067 (0.2) | 863,419 (14.8) | 62,932 (1.1) | 261,855 (4.5) | 235,095 (4.0) | 23,712 (0.4) | 38,704 (0.7) |
| | 2015 | 5,566,915 | 12,957 (0.2) | 858,340 (15.4) | 56,501 (1.0) | 247,784 (4.4) | 228,655 (4.1) | 23,320 (0.4) | 34,613 (0.6) |
| | 2016 | 6,361,258 | 15,655 (0.2) | 1,016,343 (16.0) | 59,002 (0.9) | 268,862 (4.2) | 263,302 (4.1) | 26,596 (0.4) | 29,555 (0.5) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

Tables 44 and 45 show the summary of the psychiatric diagnoses for the Treat-and-Release ED visits for males and females. The proportion of Drug/Alcohol and Schizophrenic disorders were higher in males than females. The proportion of Depressive, Anxiety and Stress disorders were higher in females than males. The proportions of Dementia disorders were at 0.2% for both males and females for Pre-ACA and Post-ACA years.

For males, the proportion of psychiatric diagnoses of ED visits with disposition of Treat-and-Release for Drug/Alcohol dependence was 31.8% in Pre-ACA 2009, decreased over time for Post-ACA 2011 to 2014, with 31.6% in 2011, to 31.7% in 2014, and increased to 32.7% in 2015 and 34.0% in 2016. The proportion of Depressive disorders was 5.3% in Pre-ACA 2009, and decreased to 4.9% in Post-ACA 2016. The proportion of Anxiety disorders was 4.8% in Pre-ACA 2009 and increased from 5.0% to 5.1% for Post-ACA 2011 to 2016.

Table 44: Summary of Psychiatric Diagnosis by Sex: Male

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|------------------|------------------|------------------|-----------------|------------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,776,405 | 8,832 (0.2) | 1,201,755 (31.8) | 75,197 (2.0) | 200,713 (5.3) | 181,252 (4.8) | 23,036 (0.6) | 67,585 (1.8) |
| Post-ACA | 2011 | 4,400,917 | 9,765 (0.2) | 1,389,529 (31.6) | 84,991 (1.9) | 228,231 (5.2) | 220,974 (5.0) | 30,358 (0.7) | 80,771 (1.8) |
| | 2012 | 5,115,222 | 11,408 (0.2) | 1,593,601 (31.1) | 101,499 (2.0) | 284,908 (5.6) | 254,139 (5.0) | 35,471 (0.7) | 93,000 (1.8) |
| | 2013 | 5,248,636 | 11,767 (0.2) | 1,641,073 (31.3) | 105,382 (2.0) | 295,035 (5.6) | 266,302 (5.1) | 37,223 (0.7) | 95,865 (1.8) |
| | 2014 | 5,845,381 | 13,604 (0.2) | 1,854,899 (31.7) | 121,795 (2.1) | 321,236 (5.5) | 298,312 (5.1) | 42,226 (0.7) | 106,905 (1.8) |
| | 2015 | 5,566,112 | 13,028 (0.2) | 1,822,675 (32.7) | 109,277 (2.0) | 295,337 (5.3) | 284,740 (5.1) | 40,520 (0.7) | 96,854 (1.7) |
| | 2016 | 6,360,350 | 15,532 (0.2) | 2,162,087 (34.0) | 119,816 (1.9) | 313,755 (4.9) | 321,140 (5.0) | 46,537 (0.7) | 86,787 (1.4) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For females, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 30.4% in Pre-ACA 2009, and decreased for Post-ACA 2011 to 2016, with 30.0% in 2011, and 29.5% in 2016. The proportion of Depressive disorders was 9.2% in Pre-ACA 2009 and decreased to 9.1% in Post-ACA 2011, increased to 9.9% in 2012 and 2013, 9.5% in 2014, 9.2% in 2015 and decreased to 8.6% in 2016. The proportion of Anxiety disorders was 9.4% in Pre-ACA 2009, increased to 9.8% in Post-ACA 2011, 2012, 2015 and 2016, and increased to 9.9% in Post-ACA 2013, and 2014.

Table 45: Summary of Psychiatric Diagnosis by Sex: Female

| Year | | Psychiatric Diagnosis | | | | | | | |
|----------|------|-----------------------|-----------------|---------------------|-----------------|------------------|------------------|-----------------|------------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,776,405 | 7,837 (0.2) | 1,146,710 (30.4) | 52,435 (1.4) | 347,571 (9.2) | 354,914 (9.4) | 35,957 (0.9) | 72,611 (1.9) |
| Post-ACA | 2011 | 4,400,917 | 9,053 (0.2) | 1,321,810 (30.0) | 58,323 (1.3) | 402,089 (9.1) | 432,876 (9.8) | 46,230 (1.0) | 85,917 (1.9) |
| | 2012 | 5,115,222 | 10,137 (0.2) | 1,498,730 (29.3) | 69,986 (1.4) | 506,735 (9.9) | 502,419 (9.8) | 54,363 (1.1) | 98,826 (1.9) |
| | 2013 | 5,248,636 | 10,395 (0.2) | 1,520,542 (29.0) | 69,963 (1.3) | 520,170 (9.9) | 519,029 (9.9) | 56,574 (1.1) | 99,316 (1.9) |
| | 2014 | 5,845,381 | 11,698 (0.2) | 1,688,053 (28.9) | 78,412 (1.3) | 556,808 (9.5) | 578,110 (9.9) | 63,457 (1.1) | 109,866 (1.9) |
| | 2015 | 5,566,112 | 11,429 (0.2) | 1,608,553 (28.9) | 71,034 (1.3) | 511,025 (9.2) | 543,593 (9.8) | 61,309 (1.1) | 96,738 (1.7) |
| | 2016 | 6,360,350 | 14,092 (0.2) | 1,878,858 (29.5) | 76,496 (1.2) | 545,307 (8.6) | 625,710 (9.8) | 70,496 (1.1) | 83,737 (1.3) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

Tables 46 to 49 show the summary of the psychiatric diagnoses for the Treat-and-Release ED visits for Medicare, Medicaid, private and uninsured payers. The

proportion of Drug/Alcohol disorders were higher among uninsured followed by Medicaid, private and Medicare.

For Medicare insurers, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 5.7% in Pre-ACA 2009, and increased over time during Post-ACA 2011 to 2016 (6.2% to 6.9%). The proportion of Depressive disorders was 2.7% for Pre-ACA 2009 and ranging from 2.8% and 3.2% during Post-ACA 2011 to 2016. The proportion of Anxiety disorders was 1.8% for Pre-ACA 2009 and from 2.1% to 2.3% during Post-ACA 2011 to 2016.

Table 46: Summary of Psychiatric Diagnosis by Payer: Medicare

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|----------------|------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,759,300 | 5,501 (0.1) | 214,393 (5.7) | 40,924 (1.1) | 99,955 (2.7) | 67,662 (1.8) | 7,482 (0.2) | 29,491 (0.8) |
| | 2011 | 4,382,064 | 6,534 (0.1) | 271,413 (6.2) | 47,963 (1.1) | 123,010 (2.8) | 90,888 (2.1) | 11,332 (0.3) | 34,328 (0.8) |
| Post-ACA | 2012 | 5,107,171 | 7,584 (0.1) | 329,500 (6.4) | 56,055 (1.1) | 160,341 (3.1) | 110,528 (2.2) | 14,100 (0.3) | 39,543 (0.8) |
| | 2013 | 5,238,086 | 7,688 (0.1) | 335,700 (6.4) | 56,535 (1.1) | 168,769 (3.2) | 120,591 (2.3) | 14,590 (0.3) | 39,741 (0.8) |
| | 2014 | 5,834,503 | 8,836 (0.1) | 388,081 (6.6) | 62,039 (1.1) | 181,178 (3.1) | 135,258 (2.3) | 17,270 (0.3) | 43,324 (0.7) |
| | 2015 | 5,560,989 | 8,217 (0.1) | 378,548 (6.8) | 55,397 (1.0) | 168,996 (3.0) | 129,339 (2.3) | 17,218 (0.3) | 39,967 (0.7) |
| | 2016 | 6,352,866 | 9,590 (0.1) | 437,114 (6.9) | 60,871 (1.0) | 177,161 (2.8) | 143,989 (2.3) | 18,979 (0.3) | 37,448 (0.6) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For Medicaid insurers, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 15.5% in Pre-ACA 2009, and increased from 17.3% in Post-ACA 2011 to 24.3% in 2016. The proportion of Depressive disorders was 4.2% in Pre-ACA 2009 and increased to 4.4% in Post-ACA 2011 to 5.2% in 2016. The proportion of Anxiety disorders was 3.6% in Pre-ACA 2009 and increased from 4.1% in Post-ACA 2011 to 5.3% in 2016.

Table 47: Summary of Psychiatric Diagnosis by Payer: Medicaid

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|----------------|---------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,759,300 | 4,159 (0.1) | 583,770 (15.5) | 42,266 (1.1) | 157,195 (4.2) | 136,444 (3.6) | 14,546 (0.4) | 40,299 (1.1) |
| Post-ACA | 2011 | 4,382,064 | 4,708 (0.1) | 759,557 (17.3) | 51,486 (1.2) | 193,351 (4.4) | 181,049 (4.1) | 21,810 (0.5) | 52,307 (1.2) |
| | 2012 | 5,107,171 | 5,524 (0.1) | 862,370 (16.9) | 61,476 (1.2) | 244,912 (4.8) | 212,014 (4.1) | 25,690 (0.5) | 60,061 (1.2) |
| | 2013 | 5,238,086 | 5,644 (0.1) | 868,925 (16.6) | 62,339 (1.2) | 251,003 (4.8) | 218,147 (4.2) | 27,408 (0.5) | 60,301 (1.1) |
| | 2014 | 5,834,503 | 7,514 (0.1) | 1,236,440 (21.2) | 79,924 (1.4) | 322,697 (5.5) | 296,047 (5.1) | 35,924 (0.6) | 77,117 (1.3) |
| | 2015 | 5,560,989 | 7,773 (0.1) | 1,337,460 (24.0) | 80,028 (1.4) | 316,631 (5.7) | 301,169 (5.4) | 39,427 (0.7) | 73,591 (1.3) |
| | 2016 | 6,352,866 | 9,629 (0.1) | 1,541,362 (24.3) | 84,632 (1.3) | 331,740 (5.2) | 337,258 (5.3) | 44,439 (0.7) | 63,229 (1.0) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For private insurers, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 14.9% in Pre-ACA 2009, and decreased to 13.5% in Post-ACA 2011 and to 13.0% in 2014, and increased to 13.9% and 14.5% in 2015 and 2016, respectively. The proportion of Depressive disorders was 4.0% in Pre-ACA 2009 and decreased from 3.6% in Post-ACA 2011 to 3.5% in 2016. The proportion of Anxiety disorders was 4.9% in Pre-ACA 2009 and decreased ranging from 4.4% to 4.8% in Post-ACA 2011 to 2016.

Table 48: Summary of Psychiatric Diagnosis by Payer: Private

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|----------------|-------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,759,300 | 3,681 (0.1) | 559,625 (14.9) | 15,856 (0.4) | 149,123 (4.0) | 183,515 (4.9) | 18,437 (0.5) | 39,322 (1.0) |
| Post-ACA | 2011 | 4,382,064 | 3,855 (0.1) | 589,633 (13.5) | 15,296 (0.3) | 159,303 (3.6) | 207,086 (4.7) | 20,546 (0.5) | 44,776 (1.0) |
| | 2012 | 5,107,171 | 4,011 (0.1) | 637,636 (12.5) | 16,580 (0.3) | 189,001 (3.7) | 229,484 (4.5) | 23,029 (0.4) | 50,051 (1.0) |
| | 2013 | 5,238,086 | 4,228 (0.1) | 643,614 (12.3) | 18,600 (0.4) | 192,213 (3.7) | 233,284 (4.4) | 23,355 (0.4) | 50,860 (1.0) |
| | 2014 | 5,834,503 | 4,621 (0.1) | 758,021 (13.0) | 23,213 (0.4) | 214,536 (3.7) | 269,016 (4.6) | 26,773 (0.5) | 57,843 (1.0) |
| | 2015 | 5,560,989 | 4,702 (0.1) | 773,186 (13.9) | 19,365 (0.3) | 204,064 (3.7) | 262,661 (4.7) | 25,049 (0.4) | 51,839 (0.9) |
| | 2016 | 6,352,866 | 5,770 (0.1) | 920,046 (14.5) | 22,395 (0.3) | 224,315 (3.5) | 307,801 (4.8) | 30,170 (0.5) | 46,419 (0.7) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For uninsured insurers, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 26.1% in Pre-ACA 2009, and decreased from 24.6% in Post-ACA 2011 to 17.9% in 2016. The proportion of Depressive disorders was 3.7% in Pre-ACA 2009 and decreased from

3.5% in Post-ACA 2011 to 2.0% in 2016. The proportion of Anxiety disorders was 3.9% in Pre-ACA 2009 and decreased to 2.5% in Post-ACA 2016.

Table 49: Summary of Psychiatric Diagnosis by Payer: Uninsured

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|----------------|---------------------|-----------------|------------------|------------------|-----------------|-----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,759,300 | 3,240 (0.1) | 980,540 (26.1) | 28,201 (0.7) | 139,189 (3.7) | 145,822 (3.9) | 18,166 (0.5) | 30,496 (0.8) |
| Post-ACA | 2011 | 4,382,064 | 3,677 (0.1) | 1,077,961 (24.6) | 28,234 (0.6) | 152,317 (3.5) | 172,362 (3.9) | 22,576 (0.5) | 34,706 (0.8) |
| | 2012 | 5,107,171 | 4,395 (0.1) | 1,257,507 (24.6) | 37,211 (0.7) | 196,377 (3.8) | 203,440 (4.0) | 26,834 (0.5) | 41,917 (0.8) |
| | 2013 | 5,238,086 | 4,555 (0.1) | 1,306,439 (24.9) | 37,633 (0.7) | 201,704 (3.8) | 211,839 (4.0) | 28,309 (0.5) | 44,072 (0.8) |
| | 2014 | 5,834,503 | 4,308 (0.1) | 1,152,748 (19.8) | 34,819 (0.6) | 158,437 (2.7) | 174,789 (3.0) | 25,515 (0.4) | 38,215 (0.6) |
| | 2015 | 5,560,989 | 3,742 (0.1) | 938,816 (16.9) | 25,415 (0.5) | 115,959 (2.1) | 134,349 (2.4) | 20,028 (0.4) | 28,053 (0.5) |
| | 2016 | 6,352,866 | 4,609 (0.1) | 1,136,592 (17.9) | 28,272 (0.4) | 125,299 (2.0) | 157,090 (2.5) | 23,327 (0.4) | 23,320 (0.4) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

Tables 50 and 51 show the summary of the psychiatric diagnoses for the Treat-and-Release ED visits for urban and rural hospitals. The proportion of Drug/Alcohol, Depressive, Anxiety, Stress and other disorders were higher for urban than rural hospitals.

For urban hospitals, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 59% in Pre-ACA 2009, decreased in Post-ACA 2011 to 2014 ranging from 58.7% to 57.2%, and increased to 59.2% and 59.5% in Post-ACA 2015 and 2016, respectively. The proportion of Depressive disorders was 13.8% in Pre-ACA 2009 and decreased to 12.7% in Post-ACA 2016. The proportion of Anxiety disorders was 13.3% for Pre-ACA 2009 and increased ranging from 13.9% to 14.2% during Post-ACA 2011 to 2016.

Table 50: Summary of Psychiatric Diagnosis by Region: Urban

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|---------------------|------------------|-------------------|-------------------|------------------|------------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 15,597 (0.4) | 2,229,545 (59.0) | 122,192 (3.2) | 521,963 (13.8) | 501,795 (13.3) | 55,078 (1.5) | 132,505 (3.5) |
| Post-ACA | 2011 | 4,402,230 | 17,714 (0.4) | 2,585,954 (58.7) | 137,488 (3.1) | 604,202 (13.7) | 616,837 (14.0) | 72,816 (1.6) | 158,100 (3.6) |
| | 2012 | 5,115,447 | 20,446 (0.4) | 2,955,603 (57.8) | 165,358 (3.2) | 759,107 (14.8) | 713,859 (13.9) | 85,901 (1.7) | 183,758 (3.6) |
| | 2013 | 5,248,833 | 20,962 (0.4) | 3,002,317 (57.2) | 168,698 (3.2) | 776,953 (14.8) | 738,677 (14.1) | 89,443 (1.7) | 185,977 (3.5) |
| | 2014 | 5,845,570 | 23,953 (0.4) | 3,367,722 (57.6) | 192,643 (3.3) | 839,931 (14.4) | 829,227 (14.2) | 100,560 (1.7) | 207,104 (3.5) |
| | 2015 | 5,566,915 | 23,378 (0.4) | 3,296,830 (59.2) | 175,220 (3.1) | 774,957 (13.9) | 790,625 (14.2) | 97,693 (1.7) | 186,948 (3.4) |
| | 2016 | 6,361,258 | 27,869 (0.4) | 3,782,184 (59.5) | 187,630 (2.9) | 810,233 (12.7) | 883,788 (13.9) | 110,746 (1.7) | 162,791 (2.6) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

For rural hospitals, the proportion of psychiatric diagnoses of ED visits with the disposition of Treat-and-Release for Drug/Alcohol dependence was 3.2% in Pre-ACA 2009, and ranging from 2.4% to 4.1% during Post-ACA 2011 to 2016. The proportion of Depressive disorders was 0.7% for Pre-ACA 2009 and ranging from 0.6% and 0.8% during Post-ACA 2011 to 2016. The proportion of Anxiety disorders was 0.9% in Pre-ACA 2009 and had small changes during Post-ACA 2011 to 2016 (0.7% to 1.0%).

Table 51: Summary of Psychiatric Diagnosis by Region: Rural

| Year | | Psychiatric Diagnosis for ED Disposition of the Treat-and-Release | | | | | | | |
|----------|------|---|-----------------|------------------|----------------|-----------------|-----------------|----------------|----------------|
| | | N | Dementia | Drug/Alcohol | Schizophrenic | Depressive | Anxiety | Stress | Other |
| Pre-ACA | 2009 | 3,779,138 | 1,083 (0.03) | 120,213 (3.2) | 5,515 (0.1) | 26,983 (0.7) | 34,861 (0.9) | 3,947 (0.1) | 7,861 (0.2) |
| Post-ACA | 2011 | 4,402,230 | 1,106 (0.03) | 126,365 (2.9) | 5,859 (0.1) | 26,242 (0.6) | 37,145 (0.8) | 3,784 (0.1) | 8,618 (0.2) |
| | 2012 | 5,115,447 | 1,102 (0.02) | 136,856 (2.7) | 6,138 (0.1) | 32,565 (0.6) | 42,734 (0.8) | 3,935 (0.1) | 8,085 (0.2) |
| | 2013 | 5,248,833 | 1,200 (0.02) | 159,424 (3.0) | 6,655 (0.1) | 38,275 (0.7) | 46,667 (0.9) | 4,362 (0.1) | 9,223 (0.2) |
| | 2014 | 5,845,570 | 1,351 (0.02) | 175,334 (3.0) | 7,574 (0.1) | 38,136 (0.6) | 47,220 (0.8) | 5,129 (0.1) | 9,686 (0.2) |
| | 2015 | 5,566,915 | 1,080 (0.02) | 134,940 (2.4) | 5,106 (0.1) | 31,496 (0.6) | 37,793 (0.7) | 4,152 (0.1) | 6,697 (0.1) |
| | 2016 | 6,361,258 | 1,758 (0.03) | 259,128 (4.1) | 8,699 (0.1) | 49,055 (0.8) | 63,299 (1.0) | 6,311 (0.1) | 7,767 (0.1) |

Note: Percentages are based on all psychiatric diagnoses for visits with Treat-and-Release disposition, N

5 CONCLUSION AND DISCUSSION

5.1 Conclusion

Analysis of the NEDS data (2009 and 2011 to 2016) demonstrated that the number of ED visits for all ages increased in the Post-ACA time period of 2012 to 2016 from 29.6 million to 32.7 million visits. Interestingly there was a slight decrease in the 2011 ED visits to 28.8 million visits compared to the 28.9 million visits in Pre-ACA 2009. The majority (>99%) of ED visits for all ages had at least one diagnosis in Pre-ACA 2009 and Post-ACA 2011 to 2016. Over 60% of all ED visits were for adults aged 18-64 in the Pre-ACA 2009 and the Post-ACA years 2011 to 2016. The number of ED visits for adults aged 18-64 with at least one diagnosis increased from 17.8 million to 20.1 million in the Post-ACA 2011 to 2016. The ACA fully went into effect on January 1, 2014. The ED visits for adults aged 18-64 continuously increased to the end of Post-ACA 2014 to 2016, 19.5 million in 2014, 18.7 million in 2015 and 20.1 million in 2016 compared to 17.6 million in Pre-ACA 2009.

Psychiatric-Related ED Visits

The number of psychiatric-related ED visits for adults aged 18-64 increased between 4.7 million to 6.0 million in Post-ACA years of 2011 to 2016 compared to the Pre-ACA year, 2009, which had 4.3 million visits. The proportion of psychiatric-related ED visits increased in Post-ACA 2011 to 2016 ranging from 26.4% to 31.3% compared to Pre-ACA 2009 at 24.1%. The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits were statistically significant for each of Post-ACA years 2011 to 2016 compared to Pre-ACA 2009. The adjusted ORs for the psychiatric-related ED visits increased from 1.12 to 1.36. The odds of psychiatric-related ED visits increased for each of Post-ACA years 2011 to 2016 compared to Pre-ACA 2009.

Patient characteristics

The proportion of psychiatric-related ED visits was higher for adults aged 26-49, followed by adults aged 50-64 and 18-25. It decreased for adults aged 18-25 and 26-49, and it increased for adults 50-64 in Post-ACA years 2011 to 2016 compared to Pre-ACA 2009. The comparisons of the psychiatric-related ED visits by age were statistically significant for the analysis of each age category for each of the Post-ACA years 2011 to 2016 versus the Pre-ACA 2009 ($P < 0.0001$).

The proportion of psychiatric-related ED visits was higher for females than males. It increased for males and decreased for females in Post-ACA years, 2011 to 2016 compared to Pre-ACA 2009. The analysis of the psychiatric-related ED visits by sex was statistically significant for the comparisons of Post-ACA 2011 to 2016 except 2012 versus Pre-ACA for both males and females ($P < 0.0001$). The comparisons of Post-ACA 2012 versus Pre-ACA were not statistically significant for both males and females ($P > 0.05$).

The proportion of psychiatric-related ED visits was increased for those whose payers were Medicare and Medicaid in the Post-ACA years. For private payers, it decreased in Post-ACA 2011 to 2016 compared to Pre-ACA. For uninsured payers, it increased from Pre-ACA compared to Post-ACA 2012 to 2013, decreased slightly in Post-ACA 2011, and decreased over time in Post-ACA 2014 to 2016 (2009: 33%, 2016: 23%). The analyses of the psychiatric-related ED visits by payer were all statistically significant for comparisons of each Post-ACA year versus Pre-ACA and for each payer ($P < 0.0001$). The number of psychiatric-related ED visits increased for Medicare, Medicaid, and private payers in Post-ACA years 2011 to 2016. It increased for the uninsured payer in Post-ACA years 2011 to 2014 and decreased in Post-ACA years

2015 to 2016 compared to Pre-ACA 2009. In 2016, there were about 1.4 million psychiatric-related ED visits with uninsured payers.

The proportion of psychiatric-related ED visits was higher for urban hospitals than for rural hospitals. For Post-ACA 2011 to 2015, the proportion of ED visits increased for urban hospitals and decreased for rural hospitals compared to Pre-ACA 2009. In 2016, it decreased for urban hospitals and increased for rural hospitals compared to Pre-ACA 2009. The analyses of the psychiatric-related ED visits by hospital region were all statistically significant for each comparison of Post-ACA year versus the Pre-ACA and each hospital region ($P < 0.0001$).

ED visits with Treat-and-Release Disposition

The proportion of psychiatric-related ED visits with the disposition of Treat-and-Release increased in Post-ACA years 2011 to 2016 to ranging from 75.7% to 78.9% compared to Pre-ACA 2009 (73.4%). The adjusted and unadjusted analyses of the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release were statistically significant for each of Post-ACA years 2011 to 2016 compared to Pre-ACA 2009. The adjusted ORs of the psychiatric-related ED visits increased over time from 1.17 to 1.54 for Post-ACA years 2011 to 2016 except 2015 versus Pre-ACA. In Post-ACA 2015, the adjusted OR was 1.03, which was lower than Post-ACA 2014 (OR=1.41) and 2016 (OR=1.54). This might be due to a high proportion of ED dispositions due to other reasons in 2015 (6.9%) compared to Pre-ACA or other Post-ACA years (0.2% or 0.3%), which might have contributed to lower Treat-and-Release or Admitted/Transferred to hospital ED dispositions. The odds of psychiatric-related ED visits of Treat-and-Release were higher in Post-ACA 2011 to 2014 and 2016 than Pre-ACA and in 2015 the odds was the same as Pre-ACA.

The proportion of ED visits with the Treat-and Release disposition was higher for adults 26-49, followed by those 50-64 and 18-25. It decreased for adults 18-26 and 26-49 and increased for adults 50-64 in the Post-ACA 2011 to 2016 compared to the Pre-ACA 2009. The proportion of psychiatric-ED visits with the Treat-and-Release disposition was higher in females than males. It increased for Medicare and Medicaid and decreased for private and uninsured payers in the Post-ACA 2014 to 2016 compared to the Pre-ACA 2009. It was higher in urban hospitals than rural hospitals.

Psychiatric Diagnosis

In Pre-ACA and Post-ACA years, among all psychiatric diagnoses, the majority of diagnoses were for the Drug/Alcohol Dependence (57.1% to 60.2%), followed by Depressive disorders (15.3% to 17.4%) and Anxiety disorders (13.6% to 15.0%). The other psychiatric diagnoses were Schizophrenic (3.5% to 4.3%), Dementia (0.7% to 0.8%), and Stress (1.8% to 2.1%), and Other disorders (3.1% to 4.3%). The number of all psychiatric diagnoses, Drug/Alcohol Dependence, Depressive, Anxiety, Schizophrenic, Dementia, and Stress disorders were higher in each of the Post-ACA years 2011 to 2016 compared to the Pre-ACA 2009.

The psychiatric diagnosis of ED visits with the disposition of Treat-and-Release was highest for the Drug/Alcohol Dependence (60.2% to 63.5%) disorders followed by Depressive disorders (13.5% to 15.5%) and Anxiety disorders (14.2% to 15.0%), Schizophrenic (3.1% to 3.4%), Dementia (0.4% to 0.5%), and Stress (1.6% to 1.8%), and Other disorders (2.7% to 3.8%).

The psychiatric diagnosis of the ED visits by age category with the disposition of Treat-and-Release was highest for Drug/Alcohol Dependence, Depressive, Anxiety, and Schizophrenic disorders in adults aged 26-49 followed by those 50-64, and then 18-25. The psychiatric diagnosis of the ED visits with Treat-and-Release by sex was

higher in males than females for the Drug/Alcohol Dependence and Schizophrenic disorders, in contrast, the Depressive, and Anxiety disorders were higher in females than males. The psychiatric diagnosis of ED visits with Treat-and-Release by payer was higher for Medicaid and uninsured payers for those with Drug/Alcohol Dependence disorders. Still the Depressive and Anxiety disorders were higher for Medicaid and private payers, and the Schizophrenic disorders were higher for Medicaid and Medicare payers. The psychiatric diagnosis of the ED visits with the disposition of Treat-and-Release by hospital region, the Drug/Alcohol Dependence, Depressive, Anxiety and Schizophrenic disorders were higher for urban hospitals than for rural hospitals.

Summary

This study demonstrated an association in the proportion of ED visits for patients with a psychiatric condition admitted to the ED and the ACA as well as an association between the ACA and the proportion of psychiatric-related ED visits with the disposition of Treat-and-Release. There was evidence of an association between the ACA and the characteristics of psychiatric patients admitted to ED. After the full implementation of the ACA, from Post-ACA 2014 to 2016, there were increases in Medicare and private payers and a significant increase in Medicaid and a decrease in uninsured payers.

5.2 Discussion

Full implementation of the ACA was on January 1, 2014. The Post-ACA years of 2014 to 2016 demonstrate a complete assessment of the association between the ACA and ED admissions by psychiatric patients. The ED visits for all ages increased from 28.9 million in 2009 to 31.0 million in 2014, 30.5 million in 2015 and 32.7 million in 2016. For adults aged 18-64, the ED visits increased from 17.6 million in 2009 to

19.5 million visits in 2014, 18.7 million in 2015 and 20.1 million visits in 2016. The ED visits for patients with at least one psychiatric diagnosis increased from 4.3 million in 2009 to 5.8 million in 2014, 5.9 million in 2015 and 6.0 million in 2016. The ED visits for all ages and adults aged 18-64 increased from 2009 to 2014 to 2016. The psychiatric-related ED visits, the ED visits with at least one psychiatric diagnosis, either primary diagnosis or secondary diagnosis, a comorbid condition or undiagnosed psychiatric disorder, increased over time Post-ACA 2014 to 2016 compared to Pre-ACA 2009. It also increased from Pre-ACA to Post-ACA 2011 to 2013 (2011: 4.7 million, 2012: 5.3 million, 2013: 5.3 million). These results were consistent with studies previously reported in the literature.^{2,23,40}

This study found that the most common psychiatric diagnoses in the ED were alcohol and drug (substance) use disorders followed by depressive, anxiety, schizophrenia and other psychoses, stress and Dementia disorders. These diagnoses were treated and released from ED. In a 2017 survey of individuals aged 12 years or older, 18.2 million individuals perceived a treatment need for substance use but did not receive treatment in the year prior to the survey.⁴ Hashemi et al.,⁴¹ reported that the most common psychiatric disorders in the EDs were substance use, attempted suicide, suicidal ideation, depressive, anxiety, and psychoses disorders. Attempted suicide was the leading cause of ED visits, which would require an in-depth assessment, triage process and adequate follow up treatment.⁴¹ This study did not report suicide/self-inflicted poisoning (ICD-9 codes: E950 to E959) and suicidal ideation (ICD-9 code: V62.84).⁶⁷ These suicide-related ICD-9 codes were not included in the Mental, Behavioral and Neurodevelopmental Disorders with ICD-9 code of 290 to 319 and not in scope of this study. However, psychiatric patients may be at risk of suicidal thoughts, ideation and attempts.

This study also demonstrated the association between the ACA and characteristics of psychiatric patients admitted to ED. The number and proportion of ED visits for patients with psychiatric conditions with Medicare, Medicaid and private payers increased but decreased for uninsured payer in 2014 and 2016 compared to 2009. For the ED visits of patients with psychiatric condition with private payer, the number of ED visits increased but the proportion of ED visits decreased in 2014 to 2016 compared to 2009. With the ACA, more people gained health insurance and yet the number of all ED visits and ED visits for patients with psychiatric conditions continued to increase. In a survey of psychiatric patients admitted to ED, lack of access to routine mental health care was the reason for their ED visits.³¹ In another study of psychiatric patients admitted to ED, 55% of patients were referred to ED by their primary care physicians for psychiatric care and 42% of psychiatric patients did not have a primary care.³⁴ In a study of the electronic health record data from an academic university hospital demonstrated that after an adjacent county mental health treatment center decreased its inpatient psychiatric units and closed its outpatient unit, ED visits of psychiatric patients significantly increased.⁷⁰ It is clear that having health insurance may not necessarily lead to having access to medical and/or mental health services. The lack of mental health services may be a contributing factor for the ED admissions of psychiatric patients.

The ACA included provisions to expand access to primary care by training primary care physicians by shifting the Federal funding for training specialists; increasing payment for primary care physicians for Medicare and Medicaid patients, and supporting a new model of primary care named the patient-centered medical home (PCMH). The ACA also included provisions for Federal funding to the National Health Services Corp to support a medical education loan repayment plan for primary care

physicians to practice in rural or inner cities where there are shortages of medical providers. The PCMH was intended to be "a team of providers, including physicians, allied professionals such as nurse practitioners or physician's assistants, as well as support personnel with a range of professional skills."⁷¹ In addition to increasing the health insurance coverage, the ACA required mental health and substance use treatment and services as part of the essential health benefits and provided funding for mental disorders in primary care and public mental health services including community mental health centers.⁷² Alakeson et al.,⁷³ were concerned with the PCMH concept which centered primary care as the core of integrated care for patients with severe psychiatric disorders such as major depressive disorders, schizophrenia or bipolar disorders. These patients are very sick, may not have health insurance, and those with health insurance do not see a primary care provider or have an established relationship with a primary care provider. Among the patients who seek care, they receive care through mental health specialists or clinics where they built relationships with specialty providers rather than primary care providers. The treatment of these patients needs to be managed for the side effects of their psychiatric medications and their medical condition(s). They suggested an integrated health care model where primary care and specialty medical care, such as mental health services are co-located in one place.⁷³ The ACA Federal incentive payment plan may apply to medical and public community mental health services, but it may not provide the same incentives for private medical and mental health services.

Through the ACA, more people who were previously uninsured, gained access to health insurance. However, people with health insurance may not be able to seek medical or psychiatric care, either not having access or may not be able to afford the out of pocket costs of treatment, medical and/or psychiatric office visits, prescriptions

or other treatments. Patients should have a coordinated or an integrated care of medical and psychiatric care. Insufficient or lack of funding of mental health services may lead to a reduction or closure of services. Inadequate public community mental health services or private mental health services that do not accept all types of health insurance, may limit access to mental health services. If patients with psychiatric conditions present to ED with medical and/or psychiatric emergency, EDs should have capabilities to treat both medical and psychiatric conditions. Psychiatric patients may have psychiatric emergency and should have access to psychiatric emergency department. General hospitals should have both general ED for medical emergency and psychiatric ED. Patients with medical and/or psychiatric conditions should properly be treated in the ED or transferred to another facilities for treatment of emergency conditions. The EDs have the opportunity to screen for psychiatric conditions, in particular for patients with undiagnosed psychiatric disorders, but it would require physicians and nurses with training in psychiatric care. Since the U.S. healthcare system is fragmented, an integrated primary and mental health care facility may reduce patient's office and/or ED visits and ultimately reduce the burden to the EDs and health care costs.

5.3 Strengths and Limitation

The NEDS databases, the largest all payers discharge data from emergency department visits, were utilized for this study. The NEDS data is a 20% stratified sample of at least 950 U.S. hospitals from 36 participating States and the District of Columbia. The database has over 28 million visits for each year and presents robust national estimates for these analyses. Although the sampling strategy of NEDS included government, non-Federal (public), private not-for-profit and private investor hospitals,

it did not include Federal hospitals such as Veteran's Administration, Department of Defense, and Indian Health Service hospitals. Since the NEDS database did not have the ED visits from Federal hospitals, another study that includes the emergency department data from Federal hospitals for patients with psychiatric conditions would be beneficial. This would provide emergency department data for all hospital types for comprehensive national level estimates.⁶⁶

This study focused on adults aged 18-64 with at least one psychiatric diagnosis either the primary or secondary diagnosis. In the 2017 NSDUH survey, approximately 62% of adults (≥ 18) had any psychiatric disorders with 50% among adults aged 18-49. Although the majority of ED visits were for adults aged 18-64, understanding the psychiatric-related ED visits for all age groups, children, adolescents, adults 18-64 and older adults (age ≥ 65) provides an overall psychiatric-related ED visits across all age groups. This information might be useful for health policy and the need of access to mental health services for all age groups.

5.4 Next steps - Future Research

This research focused on all adult patients aged 18-64 with at least one psychiatric diagnosis admitted to ED as either a primary or a secondary diagnosis. In future research, patients with the primary diagnosis of psychiatric disorder for various age groups <18 , 18-64 and ≥ 65 may provide a broader perspective of the need of psychiatric patients and their access to mental health services. Having health insurance may not necessarily provide access to mental health services. Barriers to access to mental health care and the availability of mental health services should be evaluated. Health policy for mental health services should be designed with understanding of

psychiatric patients' needs and preferences for treatment along with clinical psychiatric expertise, which impacts the patients' treatment outcomes.

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APPENDICES

Appendix A NEDS Data Elements

Abbreviations: DX, diagnosis; PR, procedure; Q1, discharge quarter 1; Q3, discharge quarter 3; Q4, discharge quarter 4.⁶⁶

| Data Element | Descriptive Title | Years | File(s) |
|---------------|--|--------------|--|
| AGE | Age in years at admission | 2006-2016 | Core |
| AMONTH | Admission month | 2006-2016 | Core |
| AWEEKEND | Admission day is on a weekend | 2006-2016 | Core |
| CHRONn | ICD-9-CM Chronic Condition Indicators | 2006-2015 Q3 | Core, Supplemental ED for 2015 |
| CPTCCSn | Clinical Classifications Software (CCS): services and procedures classification | 2008-2016 | Supplemental ED |
| CPTn | CPT-4/HCPCS procedures | 2006-2016 | Supplemental ED |
| DIED_VISIT | Died in the ED, died in the hospital, or did not die | 2006-2016 | Core |
| DISCWT | Weight to discharges in the universe | 2006-2016 | Core, Hospital, Supplemental ED |
| DISP_ED | Disposition from ED | 2006-2016 | Core |
| DISP_IP | Disposition from inpatient discharge record | 2006-2016 | Supplemental Inpatient |
| DQTR | Discharge quarter | 2006-2016 | Core |
| DRG | DRG in use on discharge date | 2006-2016 | Supplemental Inpatient |
| DRG_NoPOA | DRG in use on discharge date, calculated without POA | 2008-2016 | Supplemental Inpatient |
| DRGVER | DRG or MS-DRG grouper version used on discharge date | 2006-2016 | Supplemental Inpatient |
| DXCCSn | Clinical Classifications Software (CCS): ICD-9-CM diagnosis classification | 2006-2015 Q3 | Core, Supplemental ED for 2015 |
| DXn | ICD-9-CM Diagnosis | 2006-2015 Q3 | Core, Supplemental ED for 2015 |
| DXVER | Diagnosis codes ICD version indicator | 2015-2016 | Core, Supplemental ED for 2015 |
| E_CCEn | Clinical Classifications Software (CCS) for ICD-9-CM External Cause of Injury Code | 2006-2015 Q3 | Core, Supplemental ED & Inpatient for 2015 |
| ECODEn | ICD-9-CM External Cause of Injury Code | 2006-2015 Q3 | Core, Supplemental ED & Inpatient for 2015 |
| EDevent | Type of ED event | 2006-2016 | Core |
| FEMALE | Indicator of sex | 2006-2016 | Core |
| HCUPFILE | Source of HCUP Record (SID or SEDD) | 2006-2016 | Core, Supplemental ED & Inpatient, prior to 2011 |
| HOSP_CONTROL | Control/ownership of hospital | 2006-2016 | Hospital |
| HOSP_ED | HCUP ED hospital identifier | 2006-2016 | Core, Hospital, Supplemental ED, & Inpatient |
| HOSP_REGION | Region of hospital | 2006-2016 | Core (prior to 2011), Hospital |
| HOSP_TRAUMA | Hospital trauma level designation | 2006-2016 | Hospital |
| HOSP_UR_TEACH | Teaching status of hospital | 2006-2016 | Hospital |
| HOSP_URCAT4 | Hospital urban-rural designation | 2006-2016 | Hospital |
| HOSPWT | Weight to hospitals in the universe | 2006-2016 | Hospital |
| I10_DXn | ICD-10-CM Diagnosis | 2015-2016 | Core, Supplemental ED, & Inpatient for 2015 |
| I10_ECAUSEn | ICD-10-CM External Cause of Morbidity Code | 2015-2016 | Core, Supplemental ED, & Inpatient for 2015 |
| I10_NDX | Number of ICD-10-CM diagnoses on this discharge | 2015-2016 | Core, Supplemental ED, & Inpatient for 2015 |
| I10_NECAUSE | Number of ICD-10-CM External Cause of Morbidity codes on this record | 2015-2016 | Core, Supplemental ED, & Inpatient for 2015 |
| I10_NPR_IP | Number of procedures on the ED admission record | 2015-2016 | Supplemental ED, & Inpatient for 2015 |
| I10_PR_IPn | ICD-10-PCS procedure code | 2015-2016 | Supplemental ED, & Inpatient for 2015 |

| Data Element | Descriptive Title | Years | File(s) |
|----------------------|--|--------------|---|
| INJURY | Injury ICD-9-CM diagnosis reported on record | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_CUT | Injury by cutting or piercing | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_DROWN | Injury by drowning or submersion | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_FALL | Injury by falling | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_FIRE | Injury by fire, flame, or hot object | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_FIREARM | Injury by firearm | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_MACHINERY | Injury by machinery | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_MVT | Injury by motor vehicle traffic, including the occupant of a car, motorcyclist, pedal cyclist, pedestrian, or unspecified person | 2009-2015 Q3 | Core, Supplemental ED for 2015 |
| INJURY_NATURE | Injury involving natural or environmental causes, including bites and stings | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_POISON | Injury by poisoning | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_SEVERITY | Injury severity score assigned by ICDPIC Stata program | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_STRUCK | Injury involving being struck by or against something | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INJURY_SUFFOCATION | Injury by suffocation | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INTENT_ASSAULT | Injury by assault | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INTENT_SELF_HARM | Intentional self-harm indicated on the record (by diagnosis and/or E codes) | 2006-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| INTENT_UNINTENTIONAL | Injury was unintentional | 2009-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| KEY_ED | HCUP NEDS record identifier | 2006-2016 | Core, Supplemental ED, Supplemental Inpatient |
| LOS_IP | Length of stay for inpatient stay | 2006-2016 | Supplemental Inpatient |
| MDC | MDC in effect on discharge date | 2006-2016 | Supplemental Inpatient |
| MDC_NoPOA | MDC in use on discharge date, calculated without POA | 2009-2016 | Supplemental Inpatient |
| MULTINJURY | Multiple ICD-9-CM injuries reported | 2009-2015 | Core, Supplemental ED, & Inpatient for 2015 |
| N_DISC_U | Number of discharges in the universe for the stratum | 2006-2016 | Hospital |
| N_HOSP_U | Number of hospitals in the universe for the stratum | 2006-2016 | Hospital |
| NCPT | Number of CPT/HCPCS procedures for this discharge | 2006-2016 | Supplemental ED |
| NDX | Number of ICD-9-CM diagnoses on this discharge | 2006-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015 |
| NECODE | Number of ICD-9-CM External of Cause of Injury Codes on this Record | 2006-2015 Q3 | Core, Supplemental ED, & Inpatient for 2015) |
| NEDS_STRATUM | Stratum used to sample hospital | 2006-2016 | Core, Hospital |
| NPR_ED | Number of procedures on the ED record | 2006-2014 | Supplemental ED |
| NPR_IP | Number of procedures on the ED inpatient record | 2006-2015 | Supplemental Inpatient |
| PAY1 | Expected primary payer, uniform | 2006-2016 | Core |
| PAY2 | Expected secondary payer, uniform | 2006-2016 | Core |
| PCLASS_EDn | Procedure class | 2006-2014 | Supplemental ED |
| PCLASS_IPn | Procedure class | 2006-2015 Q3 | Supplemental Inpatient |
| PL_NCHS | Patient Location: NCHS Urban-Rural Code | 2013-2016 | Core |
| PL_NCHS2006 | Patient Location: NCHS Urban-Rural Code, 2006 | 2006-2012 | Core |
| PR_EDn | ICD-9-CM procedure code | 2006-2014 | Supplemental ED |
| PR_IPn | ICD-9-CM procedure code | 2006-2015 Q3 | Supplemental Inpatient |
| PRCCS_EDn | Clinical Classifications Software (CCS): procedure classification | 2006-2014 | Supplemental ED |
| PRCCS_IPn | Clinical Classifications Software (CCS): procedure classification | 2006-2015 Q3 | Supplemental Inpatient |
| PRVER | Procedure codes ICD version indicator | 2015-2016 | Supplemental Inpatient |

| Data Element | Descriptive Title | Years | File(s) |
|---------------------|--|--------------|------------------------|
| S_DISC_U | Number of discharges in the sample for the stratum | 2006-2016 | Hospital |
| S_HOSP_U | Number of hospitals in the sample for the stratum | 2006-2016 | Hospital |
| TOTAL_ED | Total number of ED visits from this hospital in the NEDS | 2006-2016 | Hospital |
| TOTCHG_ED | Total charge for ED services | 2006-2016 | Core |
| TOTCHG_IP | Total charge for ED and inpatient services | 2006-2016 | Supplemental Inpatient |
| YEAR | Calendar year | 2006-2016 | Core, Hospital |
| ZIPINC_QRTL | Median household income for patient's ZIP Code (based on current year) | 2006-2016 | Core |

Appendix B Mapping of ICD-9-CM to ICD-10-CM

Mapping of ICD-9 to ICD-10 using the MAPIT Quality Toolkits.⁶⁹

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 290.0 | Senile dementia, uncomplicated | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.10 | Presenile dementia, uncomplicated | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.11 | Presenile dementia with delirium | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.12 | Presenile dementia with delusional features | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.12 | Presenile dementia with delusional features | F Map | F05. | Delirium due to known physiological condition |
| 290.13 | Presenile dementia with depressive features | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.20 | Senile dementia with delusional features | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.20 | Senile dementia with delusional features | F Map | F05. | Delirium due to known physiological condition |
| 290.21 | Senile dementia with depressive features | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.3 | Senile dementia with delirium | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.3 | Senile dementia with delirium | F Map | F05. | Delirium due to known physiological condition |
| 290.40 | Vascular dementia, uncomplicated | F Map | F01.50 | Vascular dementia without behavioral disturbance |
| 290.41 | Vascular dementia, with delirium | F Map | F01.51 | Vascular dementia with behavioral disturbance |
| 290.42 | Vascular dementia, with delusions | F Map | F01.51 | Vascular dementia with behavioral disturbance |
| 290.43 | Vascular dementia, with depressed mood | F Map | F01.51 | Vascular dementia with behavioral disturbance |
| 290.8 | Other specified senile psychotic conditions | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 290.9 | Unspecified senile psychotic condition | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 291.0 | Alcohol withdrawal delirium | RB Map | F10.121 | Alcohol abuse with intoxication delirium |
| 291.0 | Alcohol withdrawal delirium | RB Map | F10.221 | Alcohol dependence with intoxication delirium |
| 291.0 | Alcohol withdrawal delirium | F Map | F10.231 | Alcohol dependence with withdrawal delirium |
| 291.0 | Alcohol withdrawal delirium | RB Map | F10.921 | Alcohol use, unspecified with intoxication delirium |
| 291.1 | Alcohol-induced persisting amnesic disorder | RB Map | F10.26 | Alcohol dependence with alcohol-induced persisting amnesic disorder |
| 291.1 | Alcohol-induced persisting amnesic disorder | F Map | F10.96 | Alcohol use, unspecified with alcohol-induced persisting amnesic disorder |
| 291.1 | Alcohol-induced persisting amnesic disorder | RB Map | F10.97 | Alcohol use, unspecified with alcohol-induced persisting dementia |
| 291.2 | Alcohol-induced persisting dementia | F Map | F10.27 | Alcohol dependence with alcohol-induced persisting dementia |
| 291.3 | Alcohol-induced psychotic disorder with hallucinations | RB Map | F10.151 | Alcohol abuse with alcohol-induced psychotic disorder with hallucinations |
| 291.3 | Alcohol-induced psychotic disorder with hallucinations | RB Map | F10.251 | Alcohol dependence with alcohol-induced psychotic disorder with hallucinations |
| 291.3 | Alcohol-induced psychotic disorder with hallucinations | F Map | F10.951 | Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations |
| 291.4 | Idiosyncratic alcohol intoxication | RB Map | F10.920 | Alcohol use, unspecified with intoxication, uncomplicated |
| 291.4 | Idiosyncratic alcohol intoxication | F Map | F10.929 | Alcohol use, unspecified with intoxication, unspecified |
| 291.5 | Alcohol-induced psychotic disorder with delusions | RB Map | F10.150 | Alcohol abuse with alcohol-induced psychotic disorder with delusions |
| 291.5 | Alcohol-induced psychotic disorder with delusions | RB Map | F10.250 | Alcohol dependence with alcohol-induced psychotic disorder with delusions |
| 291.5 | Alcohol-induced psychotic disorder with delusions | F Map | F10.950 | Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions |
| 291.81 | Alcohol withdrawal | RB Map | F10.230 | Alcohol dependence with withdrawal, uncomplicated |
| 291.81 | Alcohol withdrawal | RB Map | F10.232 | Alcohol dependence with withdrawal with perceptual disturbance |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 291.81 | Alcohol withdrawal | F Map | F10.239 | Alcohol dependence with withdrawal, unspecified |
| 291.82 | Alcohol induced sleep disorders | F Map | F10.182 | Alcohol abuse with alcohol-induced sleep disorder |
| 291.82 | Alcohol induced sleep disorders | F Map | F10.282 | Alcohol dependence with alcohol-induced sleep disorder |
| 291.82 | Alcohol induced sleep disorders | F Map | F10.982 | Alcohol use, unspecified with alcohol-induced sleep disorder |
| 291.89 | Other alcohol-induced mental disorders | RB Map | F10.14 | Alcohol abuse with alcohol-induced mood disorder |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.159 | Alcohol abuse with alcohol-induced psychotic disorder, unspecified |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.180 | Alcohol abuse with alcohol-induced anxiety disorder |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.181 | Alcohol abuse with alcohol-induced sexual dysfunction |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.188 | Alcohol abuse with other alcohol-induced disorder |
| 291.89 | Other alcohol-induced mental disorders | RB Map | F10.24 | Alcohol dependence with alcohol-induced mood disorder |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.259 | Alcohol dependence with alcohol-induced psychotic disorder, unspecified |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.280 | Alcohol dependence with alcohol-induced anxiety disorder |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.281 | Alcohol dependence with alcohol-induced sexual dysfunction |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.288 | Alcohol dependence with other alcohol-induced disorder |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.959 | Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified |
| 291.89 | Other alcohol-induced mental disorders | F Map | F10.980 | Alcohol use, unspecified with alcohol-induced anxiety disorder |
| 291.89 | Other alcohol-induced mental disorders | RB Map | F10.981 | Alcohol use, unspecified with alcohol-induced sexual dysfunction |
| 291.89 | Other alcohol-induced mental disorders | RB Map | F10.988 | Alcohol use, unspecified with other alcohol-induced disorder |
| 291.9 | Unspecified alcohol-induced mental disorders | RB Map | F10.19 | Alcohol abuse with unspecified alcohol-induced disorder |
| 291.9 | Unspecified alcohol-induced mental disorders | RB Map | F10.29 | Alcohol dependence with unspecified alcohol-induced disorder |
| 291.9 | Unspecified alcohol-induced mental disorders | RB Map | F10.94 | Alcohol use, unspecified with alcohol-induced mood disorder |
| 291.9 | Unspecified alcohol-induced mental disorders | F Map | F10.99 | Alcohol use, unspecified with unspecified alcohol-induced disorder |
| 292.0 | Drug withdrawal | RB Map | F11.23 | Opioid dependence with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F11.93 | Opioid use, unspecified with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F13.230 | Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated |
| 292.0 | Drug withdrawal | RB Map | F13.231 | Sedative, hypnotic or anxiolytic dependence with withdrawal delirium |
| 292.0 | Drug withdrawal | RB Map | F13.232 | Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance |
| 292.0 | Drug withdrawal | RB Map | F13.239 | Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified |
| 292.0 | Drug withdrawal | RB Map | F13.930 | Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated |
| 292.0 | Drug withdrawal | RB Map | F13.931 | Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium |
| 292.0 | Drug withdrawal | RB Map | F13.932 | Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances |
| 292.0 | Drug withdrawal | RB Map | F13.939 | Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified |
| 292.0 | Drug withdrawal | RB Map | F14.23 | Cocaine dependence with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F15.23 | Other stimulant dependence with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F15.93 | Other stimulant use, unspecified with withdrawal |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|---|
| 292.0 | Drug withdrawal | RB Map | F17.203 | Nicotine dependence unspecified, with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F17.213 | Nicotine dependence, cigarettes, with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F17.223 | Nicotine dependence, chewing tobacco, with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F17.293 | Nicotine dependence, other tobacco product, with withdrawal |
| 292.0 | Drug withdrawal | RB Map | F19.230 | Other psychoactive substance dependence with withdrawal, uncomplicated |
| 292.0 | Drug withdrawal | RB Map | F19.231 | Other psychoactive substance dependence with withdrawal delirium |
| 292.0 | Drug withdrawal | RB Map | F19.232 | Other psychoactive substance dependence with withdrawal with perceptual disturbance |
| 292.0 | Drug withdrawal | RB Map | F19.239 | Other psychoactive substance dependence with withdrawal, unspecified |
| 292.0 | Drug withdrawal | RB Map | F19.930 | Other psychoactive substance use, unspecified with withdrawal, uncomplicated |
| 292.0 | Drug withdrawal | RB Map | F19.931 | Other psychoactive substance use, unspecified with withdrawal delirium |
| 292.0 | Drug withdrawal | RB Map | F19.932 | Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance |
| 292.0 | Drug withdrawal | F Map | F19.939 | Other psychoactive substance use, unspecified with withdrawal, unspecified |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F11.150 | Opioid abuse with opioid-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F11.250 | Opioid dependence with opioid-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F11.950 | Opioid use, unspecified with opioid-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F12.150 | Cannabis abuse with psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F12.250 | Cannabis dependence with psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F12.950 | Cannabis use, unspecified with psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F13.150 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F13.250 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F13.950 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F14.150 | Cocaine abuse with cocaine-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F14.250 | Cocaine dependence with cocaine-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F14.950 | Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F15.150 | Other stimulant abuse with stimulant-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F15.250 | Other stimulant dependence with stimulant-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F15.950 | Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F16.150 | Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F16.250 | Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F16.950 | Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F18.150 | Inhalant abuse with inhalant-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F18.250 | Inhalant dependence with inhalant-induced psychotic disorder with delusions |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F18.950 | Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F19.150 | Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | RB Map | F19.250 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions |
| 292.11 | Drug-induced psychotic disorder with delusions | F Map | F19.950 | Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F11.151 | Opioid abuse with opioid-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F11.251 | Opioid dependence with opioid-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F11.951 | Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F12.151 | Cannabis abuse with psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F12.251 | Cannabis dependence with psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F12.951 | Cannabis use, unspecified with psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F13.151 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F13.251 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F13.951 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F14.151 | Cocaine abuse with cocaine-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F14.251 | Cocaine dependence with cocaine-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F14.951 | Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F15.151 | Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F15.251 | Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F15.951 | Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F16.151 | Hallucinogen abuse with hallucinogen-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F16.251 | Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F16.951 | Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F18.151 | Inhalant abuse with inhalant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F18.251 | Inhalant dependence with inhalant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F18.951 | Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F19.151 | Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | RB Map | F19.251 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations |
| 292.12 | Drug-induced psychotic disorder with hallucinations | F Map | F19.951 | Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations |
| 292.2 | Pathological drug intoxication | RB Map | F11.220 | Opioid dependence with intoxication, uncomplicated |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--------------------------------|----------|-------------|--|
| 292.2 | Pathological drug intoxication | RB Map | F11.229 | Opioid dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F11.920 | Opioid use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F11.929 | Opioid use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F12.120 | Cannabis abuse with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F12.129 | Cannabis abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F12.220 | Cannabis dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F12.229 | Cannabis dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F12.920 | Cannabis use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F12.929 | Cannabis use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F13.129 | Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F13.220 | Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F13.229 | Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F13.920 | Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F13.929 | Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F14.129 | Cocaine abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F14.220 | Cocaine dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F14.229 | Cocaine dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F14.920 | Cocaine use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F14.929 | Cocaine use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F15.129 | Other stimulant abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F15.220 | Other stimulant dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F15.229 | Other stimulant dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | F Map | F15.920 | Other stimulant use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F15.929 | Other stimulant use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F16.129 | Hallucinogen abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F16.220 | Hallucinogen dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F16.229 | Hallucinogen dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F16.920 | Hallucinogen use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F16.929 | Hallucinogen use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F18.120 | Inhalant abuse with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F18.129 | Inhalant abuse with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F18.220 | Inhalant dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F18.229 | Inhalant dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F18.920 | Inhalant use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F18.929 | Inhalant use, unspecified with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F19.129 | Other psychoactive substance abuse with intoxication, unspecified |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|----------------------------------|----------|-------------|---|
| 292.2 | Pathological drug intoxication | RB Map | F19.220 | Other psychoactive substance dependence with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F19.229 | Other psychoactive substance dependence with intoxication, unspecified |
| 292.2 | Pathological drug intoxication | RB Map | F19.920 | Other psychoactive substance use, unspecified with intoxication, uncomplicated |
| 292.2 | Pathological drug intoxication | RB Map | F19.929 | Other psychoactive substance use, unspecified with intoxication, unspecified |
| 292.81 | Drug-induced delirium | RB Map | F11.121 | Opioid abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F11.221 | Opioid dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F11.921 | Opioid use, unspecified with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F12.121 | Cannabis abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F12.221 | Cannabis dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F12.921 | Cannabis use, unspecified with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F13.121 | Sedative, hypnotic or anxiolytic abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F13.221 | Sedative, hypnotic or anxiolytic dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F13.921 | Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F14.121 | Cocaine abuse with intoxication with delirium |
| 292.81 | Drug-induced delirium | RB Map | F14.221 | Cocaine dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F14.921 | Cocaine use, unspecified with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F15.121 | Other stimulant abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F15.221 | Other stimulant dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F15.921 | Other stimulant use, unspecified with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F16.121 | Hallucinogen abuse with intoxication with delirium |
| 292.81 | Drug-induced delirium | RB Map | F16.221 | Hallucinogen dependence with intoxication with delirium |
| 292.81 | Drug-induced delirium | RB Map | F16.921 | Hallucinogen use, unspecified with intoxication with delirium |
| 292.81 | Drug-induced delirium | RB Map | F18.121 | Inhalant abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F18.221 | Inhalant dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F18.921 | Inhalant use, unspecified with intoxication with delirium |
| 292.81 | Drug-induced delirium | RB Map | F19.121 | Other psychoactive substance abuse with intoxication delirium |
| 292.81 | Drug-induced delirium | RB Map | F19.221 | Other psychoactive substance dependence with intoxication delirium |
| 292.81 | Drug-induced delirium | F Map | F19.921 | Other psychoactive substance use, unspecified with intoxication with delirium |
| 292.82 | Drug-induced persisting dementia | RB Map | F13.27 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F13.97 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F18.17 | Inhalant abuse with inhalant-induced dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F18.27 | Inhalant dependence with inhalant-induced dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F18.97 | Inhalant use, unspecified with inhalant-induced persisting dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F19.17 | Other psychoactive substance abuse with psychoactive substance-induced persisting dementia |
| 292.82 | Drug-induced persisting dementia | RB Map | F19.27 | Other psychoactive substance dependence with psychoactive substance-induced persisting dementia |
| 292.82 | Drug-induced persisting dementia | F Map | F19.97 | Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 292.83 | Drug-induced persisting amnestic disorder | RB Map | F13.26 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder |
| 292.83 | Drug-induced persisting amnestic disorder | RB Map | F13.96 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder |
| 292.83 | Drug-induced persisting amnestic disorder | RB Map | F19.16 | Other psychoactive substance abuse with psychoactive substance-induced persisting amnestic disorder |
| 292.83 | Drug-induced persisting amnestic disorder | RB Map | F19.26 | Other psychoactive substance dependence with psychoactive substance-induced persisting amnestic disorder |
| 292.83 | Drug-induced persisting amnestic disorder | F Map | F19.96 | Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnestic disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F11.14 | Opioid abuse with opioid-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F11.24 | Opioid dependence with opioid-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F11.94 | Opioid use, unspecified with opioid-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F13.14 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F13.24 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F13.94 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F14.14 | Cocaine abuse with cocaine-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F14.24 | Cocaine dependence with cocaine-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F14.94 | Cocaine use, unspecified with cocaine-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F15.14 | Other stimulant abuse with stimulant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F15.24 | Other stimulant dependence with stimulant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F15.94 | Other stimulant use, unspecified with stimulant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F16.14 | Hallucinogen abuse with hallucinogen-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F16.24 | Hallucinogen dependence with hallucinogen-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F16.94 | Hallucinogen use, unspecified with hallucinogen-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F18.14 | Inhalant abuse with inhalant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F18.24 | Inhalant dependence with inhalant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F18.94 | Inhalant use, unspecified with inhalant-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F19.14 | Other psychoactive substance abuse with psychoactive substance-induced mood disorder |
| 292.84 | Drug-induced mood disorder | RB Map | F19.24 | Other psychoactive substance dependence with psychoactive substance-induced mood disorder |
| 292.84 | Drug-induced mood disorder | F Map | F19.94 | Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder |
| 292.85 | Drug induced sleep disorders | F Map | F11.182 | Opioid abuse with opioid-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F11.282 | Opioid dependence with opioid-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F11.282 | Opioid dependence with opioid-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F11.982 | Opioid use, unspecified with opioid-induced sleep disorder |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 292.85 | Drug induced sleep disorders | F Map | F13.182 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F13.282 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F13.282 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F13.982 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F14.182 | Cocaine abuse with cocaine-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F14.282 | Cocaine dependence with cocaine-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F14.282 | Cocaine dependence with cocaine-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F14.982 | Cocaine use, unspecified with cocaine-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F15.182 | Other stimulant abuse with stimulant-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F15.282 | Other stimulant dependence with stimulant-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F15.282 | Other stimulant dependence with stimulant-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F15.982 | Other stimulant use, unspecified with stimulant-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F19.182 | Other psychoactive substance abuse with psychoactive substance-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F19.21 | Other psychoactive substance dependence, in remission |
| 292.85 | Drug induced sleep disorders | F Map | F19.282 | Other psychoactive substance dependence with psychoactive substance-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | RB Map | F19.282 | Other psychoactive substance dependence with psychoactive substance-induced sleep disorder |
| 292.85 | Drug induced sleep disorders | F Map | F19.982 | Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F11.122 | Opioid abuse with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.159 | Opioid abuse with opioid-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.181 | Opioid abuse with opioid-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.188 | Opioid abuse with other opioid-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.222 | Opioid dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F11.222 | Opioid dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.259 | Opioid dependence with opioid-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F11.259 | Opioid dependence with opioid-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.281 | Opioid dependence with opioid-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F11.281 | Opioid dependence with opioid-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.288 | Opioid dependence with other opioid-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F11.288 | Opioid dependence with other opioid-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.922 | Opioid use, unspecified with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.959 | Opioid use, unspecified with opioid-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.981 | Opioid use, unspecified with opioid-induced sexual dysfunction |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 292.89 | Other specified drug-induced mental disorders | F Map | F11.988 | Opioid use, unspecified with other opioid-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.122 | Cannabis abuse with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.159 | Cannabis abuse with psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.180 | Cannabis abuse with cannabis-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.188 | Cannabis abuse with other cannabis-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.222 | Cannabis dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F12.222 | Cannabis dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.259 | Cannabis dependence with psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F12.259 | Cannabis dependence with psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.280 | Cannabis dependence with cannabis-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F12.280 | Cannabis dependence with cannabis-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.288 | Cannabis dependence with other cannabis-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F12.288 | Cannabis dependence with other cannabis-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.922 | Cannabis use, unspecified with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.959 | Cannabis use, unspecified with psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.980 | Cannabis use, unspecified with anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F12.988 | Cannabis use, unspecified with other cannabis-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.159 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.180 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.181 | Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.188 | Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.259 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F13.259 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.280 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F13.280 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.281 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F13.281 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.288 | Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 292.89 | Other specified drug-induced mental disorders | RB Map | F13.288 | Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.959 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.980 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.981 | Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F13.988 | Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.122 | Cocaine abuse with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.159 | Cocaine abuse with cocaine-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.180 | Cocaine abuse with cocaine-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.181 | Cocaine abuse with cocaine-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.188 | Cocaine abuse with other cocaine-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.222 | Cocaine dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F14.222 | Cocaine dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.259 | Cocaine dependence with cocaine-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F14.259 | Cocaine dependence with cocaine-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.280 | Cocaine dependence with cocaine-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F14.280 | Cocaine dependence with cocaine-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.281 | Cocaine dependence with cocaine-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F14.281 | Cocaine dependence with cocaine-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.288 | Cocaine dependence with other cocaine-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F14.288 | Cocaine dependence with other cocaine-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.922 | Cocaine use, unspecified with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.959 | Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.980 | Cocaine use, unspecified with cocaine-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.981 | Cocaine use, unspecified with cocaine-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F14.988 | Cocaine use, unspecified with other cocaine-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.122 | Other stimulant abuse with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.159 | Other stimulant abuse with stimulant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.180 | Other stimulant abuse with stimulant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.181 | Other stimulant abuse with stimulant-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.188 | Other stimulant abuse with other stimulant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.222 | Other stimulant dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F15.222 | Other stimulant dependence with intoxication with perceptual disturbance |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.259 | Other stimulant dependence with stimulant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F15.259 | Other stimulant dependence with stimulant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.280 | Other stimulant dependence with stimulant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F15.280 | Other stimulant dependence with stimulant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.281 | Other stimulant dependence with stimulant-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F15.281 | Other stimulant dependence with stimulant-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.288 | Other stimulant dependence with other stimulant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F15.288 | Other stimulant dependence with other stimulant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.922 | Other stimulant use, unspecified with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.959 | Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.980 | Other stimulant use, unspecified with stimulant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.981 | Other stimulant use, unspecified with stimulant-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F15.988 | Other stimulant use, unspecified with other stimulant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.122 | Hallucinogen abuse with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.159 | Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.180 | Hallucinogen abuse with hallucinogen-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.183 | Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks) |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.188 | Hallucinogen abuse with other hallucinogen-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.259 | Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F16.259 | Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.280 | Hallucinogen dependence with hallucinogen-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F16.280 | Hallucinogen dependence with hallucinogen-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.283 | Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks) |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F16.283 | Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks) |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.288 | Hallucinogen dependence with other hallucinogen-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F16.288 | Hallucinogen dependence with other hallucinogen-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.959 | Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.980 | Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.983 | Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks) |
| 292.89 | Other specified drug-induced mental disorders | F Map | F16.988 | Hallucinogen use, unspecified with other hallucinogen-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F17.208 | Nicotine dependence, unspecified, with other nicotine-induced disorders |
| 292.89 | Other specified drug-induced mental disorders | F Map | F17.218 | Nicotine dependence, cigarettes, with other nicotine-induced disorders |
| 292.89 | Other specified drug-induced mental disorders | F Map | F17.228 | Nicotine dependence, chewing tobacco, with other nicotine-induced disorders |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 292.89 | Other specified drug-induced mental disorders | F Map | F17.298 | Nicotine dependence, other tobacco product, with other nicotine-induced disorders |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.159 | Inhalant abuse with inhalant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.180 | Inhalant abuse with inhalant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.188 | Inhalant abuse with other inhalant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.259 | Inhalant dependence with inhalant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F18.259 | Inhalant dependence with inhalant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.280 | Inhalant dependence with inhalant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F18.280 | Inhalant dependence with inhalant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.288 | Inhalant dependence with other inhalant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F18.288 | Inhalant dependence with other inhalant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.959 | Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.980 | Inhalant use, unspecified with inhalant-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F18.988 | Inhalant use, unspecified with other inhalant-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.122 | Other psychoactive substance abuse with intoxication with perceptual disturbances |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.159 | Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.180 | Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.181 | Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.188 | Other psychoactive substance abuse with other psychoactive substance-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.222 | Other psychoactive substance dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F19.222 | Other psychoactive substance dependence with intoxication with perceptual disturbance |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.259 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F19.259 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.280 | Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F19.280 | Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.281 | Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F19.281 | Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.288 | Other psychoactive substance dependence with other psychoactive substance-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | RB Map | F19.288 | Other psychoactive substance dependence with other psychoactive substance-induced disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.922 | Other psychoactive substance use, unspecified with intoxication with perceptual disturbance |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.959 | Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.980 | Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.981 | Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction |
| 292.89 | Other specified drug-induced mental disorders | F Map | F19.988 | Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F11.19 | Opioid abuse with unspecified opioid-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F11.29 | Opioid dependence with unspecified opioid-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F11.99 | Opioid use, unspecified with unspecified opioid-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F12.19 | Cannabis abuse with unspecified cannabis-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F12.29 | Cannabis dependence with unspecified cannabis-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F12.99 | Cannabis use, unspecified with unspecified cannabis-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F13.19 | Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F13.29 | Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F13.99 | Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F14.19 | Cocaine abuse with unspecified cocaine-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F14.29 | Cocaine dependence with unspecified cocaine-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F14.99 | Cocaine use, unspecified with unspecified cocaine-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F15.19 | Other stimulant abuse with unspecified stimulant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F15.29 | Other stimulant dependence with unspecified stimulant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F15.99 | Other stimulant use, unspecified with unspecified stimulant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F16.19 | Hallucinogen abuse with unspecified hallucinogen-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F16.29 | Hallucinogen dependence with unspecified hallucinogen-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F16.99 | Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F17.209 | Nicotine dependence, unspecified, with unspecified nicotine-induced disorders |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F17.219 | Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F17.229 | Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F17.299 | Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F18.19 | Inhalant abuse with unspecified inhalant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F18.29 | Inhalant dependence with unspecified inhalant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F18.99 | Inhalant use, unspecified with unspecified inhalant-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F19.19 | Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 292.9 | Unspecified drug-induced mental disorder | RB Map | F19.29 | Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder |
| 292.9 | Unspecified drug-induced mental disorder | F Map | F19.99 | Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder |
| 293.0 | Delirium due to conditions classified elsewhere | F Map | F05. | Delirium due to known physiological condition |
| 293.1 | Subacute delirium | F Map | F05. | Delirium due to known physiological condition |
| 293.81 | Psychotic disorder with delusions in conditions classified elsewhere | F Map | F06.2 | Psychotic disorder with delusions due to known physiological condition |
| 293.82 | Psychotic disorder with hallucinations in conditions classified elsewhere | F Map | F06.0 | Psychotic disorder with hallucinations due to known physiological condition |
| 293.83 | Mood disorder in conditions classified elsewhere | F Map | F06.30 | Mood disorder due to known physiological condition, unspecified |
| 293.83 | Mood disorder in conditions classified elsewhere | RB Map | F06.31 | Mood disorder due to known physiological condition with depressive features |
| 293.83 | Mood disorder in conditions classified elsewhere | RB Map | F06.32 | Mood disorder due to known physiological condition with major depressive-like episode |
| 293.83 | Mood disorder in conditions classified elsewhere | RB Map | F06.33 | Mood disorder due to known physiological condition with manic features |
| 293.83 | Mood disorder in conditions classified elsewhere | RB Map | F06.34 | Mood disorder due to known physiological condition with mixed features |
| 293.84 | Anxiety disorder in conditions classified elsewhere | F Map | F06.4 | Anxiety disorder due to known physiological condition |
| 293.89 | Other specified transient mental disorders due to conditions classified elsewhere, other | F Map | F06.1 | Catatonic disorder due to known physiological condition |
| 293.89 | Other specified transient mental disorders due to conditions classified elsewhere, other | F Map | F53. | Puerperal psychosis |
| 293.9 | Unspecified transient mental disorder in conditions classified elsewhere | F Map | F06.8 | Other specified mental disorders due to known physiological condition |
| 294.0 | Amnesic disorder in conditions classified elsewhere | F Map | F04. | Amnesic disorder due to known physiological condition |
| 294.10 | Dementia in conditions classified elsewhere without behavioral disturbance | F Map | F02.80 | Dementia in other diseases classified elsewhere without behavioral disturbance |
| 294.11 | Dementia in conditions classified elsewhere with behavioral disturbance | F Map | F02.81 | Dementia in other diseases classified elsewhere with behavioral disturbance |
| 294.20 | Dementia, unspecified, without behavioral disturbance | F Map | F03.90 | Unspecified dementia without behavioral disturbance |
| 294.21 | Dementia, unspecified, with behavioral disturbance | F Map | F03.91 | Unspecified dementia with behavioral disturbance |
| 294.8 | Other persistent mental disorders due to conditions classified elsewhere | F Map | F06.0 | Psychotic disorder with hallucinations due to known physiological condition |
| 294.8 | Other persistent mental disorders due to conditions classified elsewhere | RB Map | F06.1 | Catatonic disorder due to known physiological condition |
| 294.8 | Other persistent mental disorders due to conditions classified elsewhere | F Map | F06.8 | Other specified mental disorders due to known physiological condition |
| 294.9 | Unspecified persistent mental disorders due to conditions classified elsewhere | F Map | F06.8 | Other specified mental disorders due to known physiological condition |
| 295.00 | Simple type schizophrenia, unspecified | F Map | F20.89 | Other schizophrenia |
| 295.01 | Simple type schizophrenia, subchronic | F Map | F20.89 | Other schizophrenia |
| 295.02 | Simple type schizophrenia, chronic | F Map | F20.89 | Other schizophrenia |
| 295.03 | Simple type schizophrenia, subchronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|----------------------------|
| 295.04 | Simple type schizophrenia, chronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |
| 295.05 | Simple type schizophrenia, in remission | F Map | F20.89 | Other schizophrenia |
| 295.10 | Disorganized type schizophrenia, unspecified | F Map | F20.1 | Disorganized schizophrenia |
| 295.11 | Disorganized type schizophrenia, subchronic | F Map | F20.1 | Disorganized schizophrenia |
| 295.12 | Disorganized type schizophrenia, chronic | F Map | F20.1 | Disorganized schizophrenia |
| 295.13 | Disorganized type schizophrenia, subchronic with acute exacerbation | F Map | F20.1 | Disorganized schizophrenia |
| 295.14 | Disorganized type schizophrenia, chronic with acute exacerbation | F Map | F20.1 | Disorganized schizophrenia |
| 295.15 | Disorganized type schizophrenia, in remission | F Map | F20.1 | Disorganized schizophrenia |
| 295.20 | Catatonic type schizophrenia, unspecified | F Map | F20.2 | Catatonic schizophrenia |
| 295.21 | Catatonic type schizophrenia, subchronic | F Map | F20.2 | Catatonic schizophrenia |
| 295.22 | Catatonic type schizophrenia, chronic | F Map | F20.2 | Catatonic schizophrenia |
| 295.23 | Catatonic type schizophrenia, subchronic with acute exacerbation | F Map | F20.2 | Catatonic schizophrenia |
| 295.24 | Catatonic type schizophrenia, chronic with acute exacerbation | F Map | F20.2 | Catatonic schizophrenia |
| 295.25 | Catatonic type schizophrenia, in remission | F Map | F20.2 | Catatonic schizophrenia |
| 295.30 | Paranoid type schizophrenia, unspecified | F Map | F20.0 | Paranoid schizophrenia |
| 295.31 | Paranoid type schizophrenia, subchronic | F Map | F20.0 | Paranoid schizophrenia |
| 295.32 | Paranoid type schizophrenia, chronic | F Map | F20.0 | Paranoid schizophrenia |
| 295.33 | Paranoid type schizophrenia, subchronic with acute exacerbation | F Map | F20.0 | Paranoid schizophrenia |
| 295.34 | Paranoid type schizophrenia, chronic with acute exacerbation | F Map | F20.0 | Paranoid schizophrenia |
| 295.35 | Paranoid type schizophrenia, in remission | F Map | F20.0 | Paranoid schizophrenia |
| 295.40 | Schizophreniform disorder, unspecified | F Map | F20.81 | Schizophreniform disorder |
| 295.41 | Schizophreniform disorder, subchronic | F Map | F20.81 | Schizophreniform disorder |
| 295.42 | Schizophreniform disorder, chronic | F Map | F20.81 | Schizophreniform disorder |
| 295.43 | Schizophreniform disorder, subchronic with acute exacerbation | F Map | F20.81 | Schizophreniform disorder |
| 295.44 | Schizophreniform disorder, chronic with acute exacerbation | F Map | F20.81 | Schizophreniform disorder |
| 295.45 | Schizophreniform disorder, in remission | F Map | F20.81 | Schizophreniform disorder |
| 295.50 | Latent schizophrenia, unspecified | F Map | F20.89 | Other schizophrenia |
| 295.51 | Latent schizophrenia, subchronic | F Map | F20.89 | Other schizophrenia |
| 295.52 | Latent schizophrenia, chronic | F Map | F20.89 | Other schizophrenia |
| 295.53 | Latent schizophrenia, subchronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |
| 295.54 | Latent schizophrenia, chronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |
| 295.55 | Latent schizophrenia, in remission | F Map | F20.89 | Other schizophrenia |
| 295.60 | Schizophrenic disorders, residual type, unspecified | F Map | F20.5 | Residual schizophrenia |
| 295.61 | Schizophrenic disorders, residual type, subchronic | F Map | F20.5 | Residual schizophrenia |
| 295.62 | Schizophrenic disorders, residual type, chronic | F Map | F20.5 | Residual schizophrenia |
| 295.63 | Schizophrenic disorders, residual type, subchronic with acute exacerbation | F Map | F20.5 | Residual schizophrenia |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 295.64 | Schizophrenic disorders, residual type, chronic with acute exacerbation | F Map | F20.5 | Residual schizophrenia |
| 295.65 | Schizophrenic disorders, residual type, in remission | F Map | F20.5 | Residual schizophrenia |
| 295.70 | Schizoaffective disorder, unspecified | RB Map | F25.0 | Schizoaffective disorder, bipolar type |
| 295.70 | Schizoaffective disorder, unspecified | RB Map | F25.1 | Schizoaffective disorder, depressive type |
| 295.70 | Schizoaffective disorder, unspecified | RB Map | F25.8 | Other schizoaffective disorders |
| 295.70 | Schizoaffective disorder, unspecified | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.71 | Schizoaffective disorder, subchronic | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.72 | Schizoaffective disorder, chronic | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.73 | Schizoaffective disorder, subchronic with acute exacerbation | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.74 | Schizoaffective disorder, chronic with acute exacerbation | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.75 | Schizoaffective disorder, in remission | F Map | F25.9 | Schizoaffective disorder, unspecified |
| 295.80 | Other specified types of schizophrenia, unspecified | F Map | F20.89 | Other schizophrenia |
| 295.81 | Other specified types of schizophrenia, subchronic | F Map | F20.89 | Other schizophrenia |
| 295.82 | Other specified types of schizophrenia, chronic | F Map | F20.89 | Other schizophrenia |
| 295.83 | Other specified types of schizophrenia, subchronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |
| 295.84 | Other specified types of schizophrenia, chronic with acute exacerbation | F Map | F20.89 | Other schizophrenia |
| 295.85 | Other specified types of schizophrenia, in remission | F Map | F20.89 | Other schizophrenia |
| 295.90 | Unspecified schizophrenia, unspecified | RB Map | F20.3 | Undifferentiated schizophrenia |
| 295.90 | Unspecified schizophrenia, unspecified | F Map | F20.9 | Schizophrenia, unspecified |
| 295.91 | Unspecified schizophrenia, subchronic | F Map | F20.9 | Schizophrenia, unspecified |
| 295.92 | Unspecified schizophrenia, chronic | F Map | F20.9 | Schizophrenia, unspecified |
| 295.93 | Unspecified schizophrenia, subchronic with acute exacerbation | F Map | F20.9 | Schizophrenia, unspecified |
| 295.94 | Unspecified schizophrenia, chronic with acute exacerbation | F Map | F20.9 | Schizophrenia, unspecified |
| 295.95 | Unspecified schizophrenia, in remission | F Map | F20.9 | Schizophrenia, unspecified |
| 296.00 | Bipolar I disorder, single manic episode, unspecified | F Map | F30.10 | Manic episode without psychotic symptoms, unspecified |
| 296.00 | Bipolar I disorder, single manic episode, unspecified | RB Map | F30.9 | Manic episode, unspecified |
| 296.01 | Bipolar I disorder, single manic episode, mild | F Map | F30.11 | Manic episode without psychotic symptoms, mild |
| 296.02 | Bipolar I disorder, single manic episode, moderate | F Map | F30.12 | Manic episode without psychotic symptoms, moderate |
| 296.03 | Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior | F Map | F30.13 | Manic episode, severe, without psychotic symptoms |
| 296.04 | Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior | F Map | F30.2 | Manic episode, severe with psychotic symptoms |
| 296.05 | Bipolar I disorder, single manic episode, in partial or unspecified remission | F Map | F30.3 | Manic episode in partial remission |
| 296.06 | Bipolar I disorder, single manic episode, in full remission | F Map | F30.4 | Manic episode in full remission |
| 296.10 | Manic affective disorder, recurrent episode, unspecified | F Map | F30.10 | Manic episode without psychotic symptoms, unspecified |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 296.11 | Manic affective disorder, recurrent episode, mild | F Map | F30.11 | Manic episode without psychotic symptoms, mild |
| 296.12 | Manic affective disorder, recurrent episode, moderate | F Map | F30.12 | Manic episode without psychotic symptoms, moderate |
| 296.13 | Manic affective disorder, recurrent episode, severe, without mention of psychotic behavior | F Map | F30.13 | Manic episode, severe, without psychotic symptoms |
| 296.14 | Manic affective disorder, recurrent episode, severe, specified as with psychotic behavior | F Map | F30.2 | Manic episode, severe with psychotic symptoms |
| 296.15 | Manic affective disorder, recurrent episode, in partial or unspecified remission | F Map | F30.3 | Manic episode in partial remission |
| 296.16 | Manic affective disorder, recurrent episode, in full remission | F Map | F30.4 | Manic episode in full remission |
| 296.20 | Major depressive affective disorder, single episode, unspecified | F Map | F32.9 | Major depressive disorder, single episode, unspecified |
| 296.21 | Major depressive affective disorder, single episode, mild | F Map | F32.0 | Major depressive disorder, single episode, mild |
| 296.22 | Major depressive affective disorder, single episode, moderate | F Map | F32.1 | Major depressive disorder, single episode, moderate |
| 296.23 | Major depressive affective disorder, single episode, severe, without mention of psychotic behavior | F Map | F32.2 | Major depressive disorder, single episode, severe without psychotic features |
| 296.24 | Major depressive affective disorder, single episode, severe, specified as with psychotic behavior | F Map | F32.3 | Major depressive disorder, single episode, severe with psychotic features |
| 296.25 | Major depressive affective disorder, single episode, in partial or unspecified remission | F Map | F32.4 | Major depressive disorder, single episode, in partial remission |
| 296.26 | Major depressive affective disorder, single episode, in full remission | F Map | F32.5 | Major depressive disorder, single episode, in full remission |
| 296.30 | Major depressive affective disorder, recurrent episode, unspecified | RB Map | F33.40 | Major depressive disorder, recurrent, in remission, unspecified |
| 296.30 | Major depressive affective disorder, recurrent episode, unspecified | F Map | F33.9 | Major depressive disorder, recurrent, unspecified |
| 296.31 | Major depressive affective disorder, recurrent episode, mild | F Map | F33.0 | Major depressive disorder, recurrent, mild |
| 296.32 | Major depressive affective disorder, recurrent episode, moderate | F Map | F33.1 | Major depressive disorder, recurrent, moderate |
| 296.33 | Major depressive affective disorder, recurrent episode, severe, without mention of psychotic behavior | F Map | F33.2 | Major depressive disorder, recurrent severe without psychotic features |
| 296.34 | Major depressive affective disorder, recurrent episode, severe, specified as with psychotic behavior | F Map | F33.3 | Major depressive disorder, recurrent, severe with psychotic symptoms |
| 296.35 | Major depressive affective disorder, recurrent episode, in partial or unspecified remission | F Map | F33.41 | Major depressive disorder, recurrent, in partial remission |
| 296.36 | Major depressive affective disorder, recurrent episode, in full remission | F Map | F33.42 | Major depressive disorder, recurrent, in full remission |
| 296.40 | Bipolar I disorder, most recent episode (or current) manic, unspecified | RB Map | F31.0 | Bipolar disorder, current episode hypomanic |
| 296.40 | Bipolar I disorder, most recent episode (or current) manic, unspecified | F Map | F31.10 | Bipolar disorder, current episode manic without psychotic features, unspecified |
| 296.40 | Bipolar I disorder, most recent episode (or current) manic, unspecified | RB Map | F31.89 | Other bipolar disorder |
| 296.41 | Bipolar I disorder, most recent episode (or current) manic, mild | F Map | F31.11 | Bipolar disorder, current episode manic without psychotic features, mild |
| 296.42 | Bipolar I disorder, most recent episode (or current) manic, moderate | F Map | F31.12 | Bipolar disorder, current episode manic without psychotic features, moderate |
| 296.43 | Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior | F Map | F31.13 | Bipolar disorder, current episode manic without psychotic features, severe |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 296.44 | Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior | F Map | F31.2 | Bipolar disorder, current episode manic severe with psychotic features |
| 296.45 | Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission | F Map | F31.73 | Bipolar disorder, in partial remission, most recent episode manic |
| 296.46 | Bipolar I disorder, most recent episode (or current) manic, in full remission | F Map | F31.74 | Bipolar disorder, in full remission, most recent episode manic |
| 296.50 | Bipolar I disorder, most recent episode (or current) depressed, unspecified | F Map | F31.30 | Bipolar disorder, current episode depressed, mild or moderate severity, unspecified |
| 296.51 | Bipolar I disorder, most recent episode (or current) depressed, mild | F Map | F31.31 | Bipolar disorder, current episode depressed, mild |
| 296.52 | Bipolar I disorder, most recent episode (or current) depressed, moderate | F Map | F31.32 | Bipolar disorder, current episode depressed, moderate |
| 296.53 | Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior | F Map | F31.4 | Bipolar disorder, current episode depressed, severe, without psychotic features |
| 296.54 | Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior | F Map | F31.5 | Bipolar disorder, current episode depressed, severe, with psychotic features |
| 296.55 | Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission | F Map | F31.75 | Bipolar disorder, in partial remission, most recent episode depressed |
| 296.56 | Bipolar I disorder, most recent episode (or current) depressed, in full remission | F Map | F31.76 | Bipolar disorder, in full remission, most recent episode depressed |
| 296.60 | Bipolar I disorder, most recent episode (or current) mixed, unspecified | F Map | F31.60 | Bipolar disorder, current episode mixed, unspecified |
| 296.61 | Bipolar I disorder, most recent episode (or current) mixed, mild | F Map | F31.61 | Bipolar disorder, current episode mixed, mild |
| 296.62 | Bipolar I disorder, most recent episode (or current) mixed, moderate | F Map | F31.62 | Bipolar disorder, current episode mixed, moderate |
| 296.63 | Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior | F Map | F31.63 | Bipolar disorder, current episode mixed, severe, without psychotic features |
| 296.64 | Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior | F Map | F31.64 | Bipolar disorder, current episode mixed, severe, with psychotic features |
| 296.65 | Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission | F Map | F31.77 | Bipolar disorder, in partial remission, most recent episode mixed |
| 296.66 | Bipolar I disorder, most recent episode (or current) mixed, in full remission | F Map | F31.78 | Bipolar disorder, in full remission, most recent episode mixed |
| 296.7 | Bipolar I disorder, most recent episode (or current) unspecified | RB Map | F31.70 | Bipolar disorder, currently in remission, most recent episode unspecified |
| 296.7 | Bipolar I disorder, most recent episode (or current) unspecified | RB Map | F31.71 | Bipolar disorder, in partial remission, most recent episode hypomanic |
| 296.7 | Bipolar I disorder, most recent episode (or current) unspecified | RB Map | F31.72 | Bipolar disorder, in full remission, most recent episode hypomanic |
| 296.7 | Bipolar I disorder, most recent episode (or current) unspecified | F Map | F31.9 | Bipolar disorder, unspecified |
| 296.80 | Bipolar disorder, unspecified | F Map | F31.9 | Bipolar disorder, unspecified |
| 296.81 | Atypical manic disorder | F Map | F30.8 | Other manic episodes |
| 296.82 | Atypical depressive disorder | F Map | F32.89 | Other specified depressive episodes |
| 296.89 | Other bipolar disorders | F Map | F31.81 | Bipolar II disorder |
| 296.90 | Unspecified episodic mood disorder | F Map | F39. | Unspecified mood [affective] disorder |
| 296.99 | Other specified episodic mood disorder | RB Map | F33.8 | Other recurrent depressive disorders |
| 296.99 | Other specified episodic mood disorder | F Map | F34.81 | Disruptive mood dysregulation disorder |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 296.99 | Other specified episodic mood disorder | F Map | F34.89 | Other specified persistent mood disorders |
| 296.99 | Other specified episodic mood disorder | RB Map | F34.9 | Persistent mood [affective] disorder, unspecified |
| 297.0 | Paranoid state, simple | F Map | F22. | Delusional disorders |
| 297.1 | Delusional disorder | F Map | F22. | Delusional disorders |
| 297.2 | Paraphrenia | F Map | F22. | Delusional disorders |
| 297.3 | Shared psychotic disorder | F Map | F24. | Shared psychotic disorder |
| 297.8 | Other specified paranoid states | F Map | F22. | Delusional disorders |
| 297.9 | Unspecified paranoid state | F Map | F23. | Brief psychotic disorder |
| 298.0 | Depressive type psychosis | F Map | F32.3 | Major depressive disorder, single episode, severe with psychotic features |
| 298.0 | Depressive type psychosis | F Map | F33.3 | Major depressive disorder, recurrent, severe with psychotic symptoms |
| 298.1 | Excitative type psychosis | F Map | F28. | Other psychotic disorder not due to a substance or known physiological condition |
| 298.2 | Reactive confusion | F Map | F44.89 | Other dissociative and conversion disorders |
| 298.3 | Acute paranoid reaction | F Map | F23. | Brief psychotic disorder |
| 298.4 | Psychogenic paranoid psychosis | F Map | F23. | Brief psychotic disorder |
| 298.8 | Other and unspecified reactive psychosis | F Map | F23. | Brief psychotic disorder |
| 298.9 | Unspecified psychosis | RB Map | F28. | Other psychotic disorder not due to a substance or known physiological condition |
| 298.9 | Unspecified psychosis | F Map | F29. | Unspecified psychosis not due to a substance or known physiological condition |
| 299.00 | Autistic disorder, current or active state | F Map | F84.0 | Autistic disorder |
| 299.01 | Autistic disorder, residual state | F Map | F84.0 | Autistic disorder |
| 299.10 | Childhood disintegrative disorder, current or active state | F Map | F84.3 | Other childhood disintegrative disorder |
| 299.11 | Childhood disintegrative disorder, residual state | F Map | F84.3 | Other childhood disintegrative disorder |
| 299.80 | Other specified pervasive developmental disorders, current or active state | F Map | F84.5 | Asperger's syndrome |
| 299.80 | Other specified pervasive developmental disorders, current or active state | F Map | F84.8 | Other pervasive developmental disorders |
| 299.81 | Other specified pervasive developmental disorders, residual state | F Map | F84.5 | Asperger's syndrome |
| 299.81 | Other specified pervasive developmental disorders, residual state | F Map | F84.8 | Other pervasive developmental disorders |
| 299.90 | Unspecified pervasive developmental disorder, current or active state | F Map | F84.9 | Pervasive developmental disorder, unspecified |
| 299.91 | Unspecified pervasive developmental disorder, residual state | F Map | F84.9 | Pervasive developmental disorder, unspecified |
| 300.00 | Anxiety state, unspecified | F Map | F41.9 | Anxiety disorder, unspecified |
| 300.01 | Panic disorder without agoraphobia | F Map | F41.0 | Panic disorder [episodic paroxysmal anxiety] |
| 300.02 | Generalized anxiety disorder | F Map | F41.1 | Generalized anxiety disorder |
| 300.09 | Other anxiety states | RB Map | F41.3 | Other mixed anxiety disorders |
| 300.09 | Other anxiety states | F Map | F41.8 | Other specified anxiety disorders |
| 300.10 | Hysteria, unspecified | F Map | F44.9 | Dissociative and conversion disorder, unspecified |
| 300.11 | Conversion disorder | F Map | F44.4 | Conversion disorder with motor symptom or deficit |
| 300.11 | Conversion disorder | RB Map | F44.5 | Conversion disorder with seizures or convulsions |
| 300.11 | Conversion disorder | F Map | F44.6 | Conversion disorder with sensory symptom or deficit |
| 300.11 | Conversion disorder | RB Map | F44.7 | Conversion disorder with mixed symptom presentation |
| 300.12 | Dissociative amnesia | F Map | F44.0 | Dissociative amnesia |
| 300.13 | Dissociative fugue | F Map | F44.1 | Dissociative fugue |
| 300.14 | Dissociative identity disorder | F Map | F44.81 | Dissociative identity disorder |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 300.15 | Dissociative disorder or reaction, unspecified | F Map | F44.9 | Dissociative and conversion disorder, unspecified |
| 300.16 | Factitious disorder with predominantly psychological signs and symptoms | F Map | F44.89 | Other dissociative and conversion disorders |
| 300.16 | Factitious disorder with predominantly psychological signs and symptoms | F Map | F68.11 | Factitious disorder with predominantly psychological signs and symptoms |
| 300.16 | Factitious disorder with predominantly psychological signs and symptoms | RB Map | F68.13 | Factitious disorder with combined psychological and physical signs and symptoms |
| 300.19 | Other and unspecified factitious illness | RB Map | F44.2 | Dissociative stupor |
| 300.19 | Other and unspecified factitious illness | F Map | F68.8 | Other specified disorders of adult personality and behavior |
| 300.20 | Phobia, unspecified | F Map | F40.9 | Phobic anxiety disorder, unspecified |
| 300.21 | Agoraphobia with panic disorder | F Map | F40.01 | Agoraphobia with panic disorder |
| 300.22 | Agoraphobia without mention of panic attacks | RB Map | F40.00 | Agoraphobia, unspecified |
| 300.22 | Agoraphobia without mention of panic attacks | F Map | F40.02 | Agoraphobia without panic disorder |
| 300.23 | Social phobia | F Map | F40.10 | Social phobia, unspecified |
| 300.23 | Social phobia | RB Map | F40.11 | Social phobia, generalized |
| 300.29 | Other isolated or specific phobias | RB Map | F40.210 | Arachnophobia |
| 300.29 | Other isolated or specific phobias | F Map | F40.218 | Other animal type phobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.220 | Fear of thunderstorms |
| 300.29 | Other isolated or specific phobias | RB Map | F40.228 | Other natural environment type phobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.230 | Fear of blood |
| 300.29 | Other isolated or specific phobias | RB Map | F40.231 | Fear of injections and transfusions |
| 300.29 | Other isolated or specific phobias | RB Map | F40.232 | Fear of other medical care |
| 300.29 | Other isolated or specific phobias | RB Map | F40.233 | Fear of injury |
| 300.29 | Other isolated or specific phobias | F Map | F40.240 | Claustrophobia |
| 300.29 | Other isolated or specific phobias | F Map | F40.241 | Acrophobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.242 | Fear of bridges |
| 300.29 | Other isolated or specific phobias | RB Map | F40.243 | Fear of flying |
| 300.29 | Other isolated or specific phobias | RB Map | F40.248 | Other situational type phobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.290 | Androphobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.291 | Gynephobia |
| 300.29 | Other isolated or specific phobias | RB Map | F40.298 | Other specified phobia |
| 300.29 | Other isolated or specific phobias | F Map | F40.8 | Other phobic anxiety disorders |
| 300.3 | Obsessive-compulsive disorders | F Map | F42.2 | Mixed obsessional thoughts and acts |
| 300.3 | Obsessive-compulsive disorders | F Map | F42.3 | Hoarding disorder |
| 300.3 | Obsessive-compulsive disorders | F Map | F42.8 | Other obsessive-compulsive disorder |
| 300.3 | Obsessive-compulsive disorders | F Map | F42.9 | Obsessive-compulsive disorder, unspecified |
| 300.4 | Dysthymic disorder | F Map | F34.1 | Dysthymic disorder |
| 300.5 | Neurasthenia | F Map | F48.8 | Other specified nonpsychotic mental disorders |
| 300.6 | Depersonalization disorder | F Map | F48.1 | Depersonalization-derealization syndrome |
| 300.7 | Hypochondriasis | RB Map | F45.20 | Hypochondriacal disorder, unspecified |
| 300.7 | Hypochondriasis | F Map | F45.21 | Hypochondriasis |
| 300.7 | Hypochondriasis | F Map | F45.22 | Body dysmorphic disorder |
| 300.7 | Hypochondriasis | RB Map | F45.29 | Other hypochondriacal disorders |
| 300.81 | Somatization disorder | F Map | F45.0 | Somatization disorder |
| 300.82 | Undifferentiated somatoform disorder | F Map | F45.1 | Undifferentiated somatoform disorder |
| 300.82 | Undifferentiated somatoform disorder | F Map | F45.9 | Somatoform disorder, unspecified |
| 300.89 | Other somatoform disorders | F Map | F45.8 | Other somatoform disorders |
| 300.89 | Other somatoform disorders | F Map | F48.8 | Other specified nonpsychotic mental disorders |
| 300.9 | Unspecified nonpsychotic mental disorder | F Map | F48.9 | Nonpsychotic mental disorder, unspecified |
| 300.9 | Unspecified nonpsychotic mental disorder | F Map | F99. | Mental disorder, not otherwise specified |
| 300.9 | Unspecified nonpsychotic mental disorder | RB Map | R45.2 | Unhappiness |
| 300.9 | Unspecified nonpsychotic mental disorder | RB Map | R45.5 | Hostility |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 300.9 | Unspecified nonpsychotic mental disorder | RB Map | R45.6 | Violent behavior |
| 301.0 | Paranoid personality disorder | F Map | F60.0 | Paranoid personality disorder |
| 301.10 | Affective personality disorder, unspecified | F Map | F34.0 | Cyclothymic disorder |
| 301.11 | Chronic hypomanic personality disorder | F Map | F60.89 | Other specific personality disorders |
| 301.12 | Chronic depressive personality disorder | F Map | F34.1 | Dysthymic disorder |
| 301.13 | Cyclothymic disorder | F Map | F34.0 | Cyclothymic disorder |
| 301.20 | Schizoid personality disorder, unspecified | F Map | F60.1 | Schizoid personality disorder |
| 301.21 | Introverted personality | F Map | F60.1 | Schizoid personality disorder |
| 301.22 | Schizotypal personality disorder | F Map | F21. | Schizotypal disorder |
| 301.3 | Explosive personality disorder | F Map | F60.3 | Borderline personality disorder |
| 301.4 | Obsessive-compulsive personality disorder | F Map | F60.5 | Obsessive-compulsive personality disorder |
| 301.50 | Histrionic personality disorder, unspecified | F Map | F60.4 | Histrionic personality disorder |
| 301.51 | Chronic factitious illness with physical symptoms | RB Map | F68.10 | Factitious disorder, unspecified |
| 301.51 | Chronic factitious illness with physical symptoms | F Map | F68.12 | Factitious disorder with predominantly physical signs and symptoms |
| 301.51 | Chronic factitious illness with physical symptoms | RB Map | F68.13 | Factitious disorder with combined psychological and physical signs and symptoms |
| 301.59 | Other histrionic personality disorder | F Map | F60.4 | Histrionic personality disorder |
| 301.6 | Dependent personality disorder | F Map | F60.7 | Dependent personality disorder |
| 301.7 | Antisocial personality disorder | F Map | F60.2 | Antisocial personality disorder |
| 301.82 | Avoidant personality disorder | F Map | F60.6 | Avoidant personality disorder |
| 301.83 | Borderline personality disorder | F Map | F60.3 | Borderline personality disorder |
| 301.84 | Passive-aggressive personality | F Map | F60.89 | Other specific personality disorders |
| 301.89 | Other personality disorders | F Map | F60.89 | Other specific personality disorders |
| 301.9 | Unspecified personality disorder | F Map | F60.9 | Personality disorder, unspecified |
| 301.9 | Unspecified personality disorder | RB Map | F69. | Unspecified disorder of adult personality and behavior |
| 302.0 | Ego-dystonic sexual orientation | F Map | F66. | Other sexual disorders |
| 302.1 | Zoophilia | F Map | F65.89 | Other paraphilias |
| 302.2 | Pedophilia | F Map | F65.4 | Pedophilia |
| 302.3 | Transvestic fetishism | F Map | F65.1 | Transvestic fetishism |
| 302.4 | Exhibitionism | F Map | F65.2 | Exhibitionism |
| 302.50 | Trans-sexualism with unspecified sexual history | F Map | F64.0 | Transsexualism |
| 302.50 | Trans-sexualism with unspecified sexual history | F Map | Z87.890 | Personal history of sex reassignment |
| 302.51 | Trans-sexualism with asexual history | F Map | F64.0 | Transsexualism |
| 302.52 | Trans-sexualism with homosexual history | F Map | F64.0 | Transsexualism |
| 302.53 | Trans-sexualism with heterosexual history | F Map | F64.0 | Transsexualism |
| 302.6 | Gender identity disorder in children | F Map | F64.2 | Gender identity disorder of childhood |
| 302.6 | Gender identity disorder in children | RB Map | F64.8 | Other gender identity disorders |
| 302.6 | Gender identity disorder in children | RB Map | F64.9 | Gender identity disorder, unspecified |
| 302.70 | Psychosexual dysfunction, unspecified | RB Map | F52.9 | Unspecified sexual dysfunction not due to a substance or known physiological condition |
| 302.70 | Psychosexual dysfunction, unspecified | F Map | R37. | Sexual dysfunction, unspecified |
| 302.71 | Hypoactive sexual desire disorder | F Map | F52.0 | Hypoactive sexual desire disorder |
| 302.72 | Psychosexual dysfunction with inhibited sexual excitement | F Map | F52.21 | Male erectile disorder |
| 302.72 | Psychosexual dysfunction with inhibited sexual excitement | RB Map | F52.22 | Female sexual arousal disorder |
| 302.72 | Psychosexual dysfunction with inhibited sexual excitement | F Map | F52.8 | Other sexual dysfunction not due to a substance or known physiological condition |
| 302.73 | Female orgasmic disorder | F Map | F52.31 | Female orgasmic disorder |
| 302.74 | Male orgasmic disorder | F Map | F52.32 | Male orgasmic disorder |
| 302.75 | Premature ejaculation | F Map | F52.4 | Premature ejaculation |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 302.76 | Dyspareunia, psychogenic | F Map | F52.6 | Dyspareunia not due to a substance or known physiological condition |
| 302.79 | Psychosexual dysfunction with other specified psychosexual dysfunctions | F Map | F52.1 | Sexual aversion disorder |
| 302.79 | Psychosexual dysfunction with other specified psychosexual dysfunctions | F Map | F52.8 | Other sexual dysfunction not due to a substance or known physiological condition |
| 302.81 | Fetishism | F Map | F65.0 | Fetishism |
| 302.82 | Voyeurism | F Map | F65.3 | Voyeurism |
| 302.83 | Sexual masochism | F Map | F65.51 | Sexual masochism |
| 302.84 | Sexual sadism | RB Map | F65.50 | Sadomasochism, unspecified |
| 302.84 | Sexual sadism | F Map | F65.52 | Sexual sadism |
| 302.85 | Gender identity disorder in adolescents or adults | F Map | F64.1 | Dual role transvestism |
| 302.89 | Other specified psychosexual disorders | F Map | F65.81 | Frotteurism |
| 302.89 | Other specified psychosexual disorders | F Map | F65.89 | Other paraphilias |
| 302.89 | Other specified psychosexual disorders | F Map | F66. | Other sexual disorders |
| 302.9 | Unspecified psychosexual disorder | F Map | F65.9 | Paraphilia, unspecified |
| 303.00 | Acute alcoholic intoxication in alcoholism, unspecified | RB Map | F10.220 | Alcohol dependence with intoxication, uncomplicated |
| 303.00 | Acute alcoholic intoxication in alcoholism, unspecified | F Map | F10.229 | Alcohol dependence with intoxication, unspecified |
| 303.01 | Acute alcoholic intoxication in alcoholism, continuous | RB Map | F10.220 | Alcohol dependence with intoxication, uncomplicated |
| 303.01 | Acute alcoholic intoxication in alcoholism, continuous | F Map | F10.229 | Alcohol dependence with intoxication, unspecified |
| 303.02 | Acute alcoholic intoxication in alcoholism, episodic | RB Map | F10.220 | Alcohol dependence with intoxication, uncomplicated |
| 303.02 | Acute alcoholic intoxication in alcoholism, episodic | F Map | F10.229 | Alcohol dependence with intoxication, unspecified |
| 303.03 | Acute alcoholic intoxication in alcoholism, in remission | RB Map | F10.220 | Alcohol dependence with intoxication, uncomplicated |
| 303.03 | Acute alcoholic intoxication in alcoholism, in remission | F Map | F10.229 | Alcohol dependence with intoxication, unspecified |
| 303.90 | Other and unspecified alcohol dependence, unspecified | F Map | F10.20 | Alcohol dependence, uncomplicated |
| 303.91 | Other and unspecified alcohol dependence, continuous | F Map | F10.20 | Alcohol dependence, uncomplicated |
| 303.92 | Other and unspecified alcohol dependence, episodic | F Map | F10.20 | Alcohol dependence, uncomplicated |
| 303.93 | Other and unspecified alcohol dependence, in remission | F Map | F10.21 | Alcohol dependence, in remission |
| 304.00 | Opioid type dependence, unspecified | F Map | F11.20 | Opioid dependence, uncomplicated |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.220 | Opioid dependence with intoxication, uncomplicated |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.221 | Opioid dependence with intoxication delirium |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.222 | Opioid dependence with intoxication with perceptual disturbance |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.229 | Opioid dependence with intoxication, unspecified |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.23 | Opioid dependence with withdrawal |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.24 | Opioid dependence with opioid-induced mood disorder |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.250 | Opioid dependence with opioid-induced psychotic disorder with delusions |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.251 | Opioid dependence with opioid-induced psychotic disorder with hallucinations |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.259 | Opioid dependence with opioid-induced psychotic disorder, unspecified |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.281 | Opioid dependence with opioid-induced sexual dysfunction |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.282 | Opioid dependence with opioid-induced sleep disorder |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.288 | Opioid dependence with other opioid-induced disorder |
| 304.00 | Opioid type dependence, unspecified | RB Map | F11.29 | Opioid dependence with unspecified opioid-induced disorder |
| 304.01 | Opioid type dependence, continuous | F Map | F11.20 | Opioid dependence, uncomplicated |
| 304.02 | Opioid type dependence, episodic | F Map | F11.20 | Opioid dependence, uncomplicated |
| 304.03 | Opioid type dependence, in remission | F Map | F11.21 | Opioid dependence, in remission |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | F Map | F13.20 | Sedative, hypnotic or anxiolytic dependence, uncomplicated |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.220 | Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.221 | Sedative, hypnotic or anxiolytic dependence with intoxication delirium |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.229 | Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.230 | Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.231 | Sedative, hypnotic or anxiolytic dependence with withdrawal delirium |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.232 | Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.239 | Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.24 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.250 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.251 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.259 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.26 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.27 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.280 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.281 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.282 | Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.288 | Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder |
| 304.10 | Sedative, hypnotic or anxiolytic dependence, unspecified | RB Map | F13.29 | Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder |
| 304.11 | Sedative, hypnotic or anxiolytic dependence, continuous | F Map | F13.20 | Sedative, hypnotic or anxiolytic dependence, uncomplicated |
| 304.12 | Sedative, hypnotic or anxiolytic dependence, episodic | F Map | F13.20 | Sedative, hypnotic or anxiolytic dependence, uncomplicated |
| 304.13 | Sedative, hypnotic or anxiolytic dependence, in remission | F Map | F13.21 | Sedative, hypnotic or anxiolytic dependence, in remission |
| 304.20 | Cocaine dependence, unspecified | F Map | F14.20 | Cocaine dependence, uncomplicated |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.220 | Cocaine dependence with intoxication, uncomplicated |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.221 | Cocaine dependence with intoxication delirium |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.222 | Cocaine dependence with intoxication with perceptual disturbance |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.229 | Cocaine dependence with intoxication, unspecified |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.23 | Cocaine dependence with withdrawal |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.24 | Cocaine dependence with cocaine-induced mood disorder |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.250 | Cocaine dependence with cocaine-induced psychotic disorder with delusions |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.251 | Cocaine dependence with cocaine-induced psychotic disorder with hallucinations |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.259 | Cocaine dependence with cocaine-induced psychotic disorder, unspecified |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.280 | Cocaine dependence with cocaine-induced anxiety disorder |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.281 | Cocaine dependence with cocaine-induced sexual dysfunction |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.282 | Cocaine dependence with cocaine-induced sleep disorder |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.288 | Cocaine dependence with other cocaine-induced disorder |
| 304.20 | Cocaine dependence, unspecified | RB Map | F14.29 | Cocaine dependence with unspecified cocaine-induced disorder |
| 304.21 | Cocaine dependence, continuous | F Map | F14.20 | Cocaine dependence, uncomplicated |
| 304.22 | Cocaine dependence, episodic | F Map | F14.20 | Cocaine dependence, uncomplicated |
| 304.23 | Cocaine dependence, in remission | F Map | F14.21 | Cocaine dependence, in remission |
| 304.30 | Cannabis dependence, unspecified | F Map | F12.20 | Cannabis dependence, uncomplicated |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.220 | Cannabis dependence with intoxication, uncomplicated |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.221 | Cannabis dependence with intoxication delirium |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.222 | Cannabis dependence with intoxication with perceptual disturbance |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.229 | Cannabis dependence with intoxication, unspecified |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.250 | Cannabis dependence with psychotic disorder with delusions |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.251 | Cannabis dependence with psychotic disorder with hallucinations |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.259 | Cannabis dependence with psychotic disorder, unspecified |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.280 | Cannabis dependence with cannabis-induced anxiety disorder |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.288 | Cannabis dependence with other cannabis-induced disorder |
| 304.30 | Cannabis dependence, unspecified | RB Map | F12.29 | Cannabis dependence with unspecified cannabis-induced disorder |
| 304.31 | Cannabis dependence, continuous | F Map | F12.20 | Cannabis dependence, uncomplicated |
| 304.32 | Cannabis dependence, episodic | F Map | F12.20 | Cannabis dependence, uncomplicated |
| 304.33 | Cannabis dependence, in remission | F Map | F12.21 | Cannabis dependence, in remission |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | F Map | F15.20 | Other stimulant dependence, uncomplicated |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.220 | Other stimulant dependence with intoxication, uncomplicated |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.221 | Other stimulant dependence with intoxication delirium |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.222 | Other stimulant dependence with intoxication with perceptual disturbance |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.229 | Other stimulant dependence with intoxication, unspecified |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.23 | Other stimulant dependence with withdrawal |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.24 | Other stimulant dependence with stimulant-induced mood disorder |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.250 | Other stimulant dependence with stimulant-induced psychotic disorder with delusions |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.251 | Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.259 | Other stimulant dependence with stimulant-induced psychotic disorder, unspecified |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.280 | Other stimulant dependence with stimulant-induced anxiety disorder |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.281 | Other stimulant dependence with stimulant-induced sexual dysfunction |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.282 | Other stimulant dependence with stimulant-induced sleep disorder |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.288 | Other stimulant dependence with other stimulant-induced disorder |
| 304.40 | Amphetamine and other psychostimulant dependence, unspecified | RB Map | F15.29 | Other stimulant dependence with unspecified stimulant-induced disorder |
| 304.41 | Amphetamine and other psychostimulant dependence, continuous | F Map | F15.20 | Other stimulant dependence, uncomplicated |
| 304.42 | Amphetamine and other psychostimulant dependence, episodic | F Map | F15.20 | Other stimulant dependence, uncomplicated |
| 304.43 | Amphetamine and other psychostimulant dependence, in remission | F Map | F15.21 | Other stimulant dependence, in remission |
| 304.50 | Hallucinogen dependence, unspecified | F Map | F16.20 | Hallucinogen dependence, uncomplicated |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.220 | Hallucinogen dependence with intoxication, uncomplicated |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.221 | Hallucinogen dependence with intoxication with delirium |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.229 | Hallucinogen dependence with intoxication, unspecified |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.24 | Hallucinogen dependence with hallucinogen-induced mood disorder |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.250 | Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.251 | Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.259 | Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.280 | Hallucinogen dependence with hallucinogen-induced anxiety disorder |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.283 | Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks) |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.288 | Hallucinogen dependence with other hallucinogen-induced disorder |
| 304.50 | Hallucinogen dependence, unspecified | RB Map | F16.29 | Hallucinogen dependence with unspecified hallucinogen-induced disorder |
| 304.51 | Hallucinogen dependence, continuous | F Map | F16.20 | Hallucinogen dependence, uncomplicated |
| 304.52 | Hallucinogen dependence, episodic | F Map | F16.20 | Hallucinogen dependence, uncomplicated |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 304.53 | Hallucinogen dependence, in remission | F Map | F16.21 | Hallucinogen dependence, in remission |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.20 | Inhalant dependence, uncomplicated |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.220 | Inhalant dependence with intoxication, uncomplicated |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.221 | Inhalant dependence with intoxication delirium |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.229 | Inhalant dependence with intoxication, unspecified |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.24 | Inhalant dependence with inhalant-induced mood disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.250 | Inhalant dependence with inhalant-induced psychotic disorder with delusions |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.251 | Inhalant dependence with inhalant-induced psychotic disorder with hallucinations |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.259 | Inhalant dependence with inhalant-induced psychotic disorder, unspecified |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.27 | Inhalant dependence with inhalant-induced dementia |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.280 | Inhalant dependence with inhalant-induced anxiety disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.288 | Inhalant dependence with other inhalant-induced disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F18.29 | Inhalant dependence with unspecified inhalant-induced disorder |
| 304.60 | Other specified drug dependence, unspecified | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.220 | Other psychoactive substance dependence with intoxication, uncomplicated |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.221 | Other psychoactive substance dependence with intoxication delirium |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.222 | Other psychoactive substance dependence with intoxication with perceptual disturbance |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.229 | Other psychoactive substance dependence with intoxication, unspecified |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.230 | Other psychoactive substance dependence with withdrawal, uncomplicated |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.231 | Other psychoactive substance dependence with withdrawal delirium |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.232 | Other psychoactive substance dependence with withdrawal with perceptual disturbance |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.239 | Other psychoactive substance dependence with withdrawal, unspecified |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.24 | Other psychoactive substance dependence with psychoactive substance-induced mood disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.250 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.251 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.259 | Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.26 | Other psychoactive substance dependence with psychoactive substance-induced persisting amnesic disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.27 | Other psychoactive substance dependence with psychoactive substance-induced persisting dementia |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.280 | Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.281 | Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.282 | Other psychoactive substance dependence with psychoactive substance-induced sleep disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.288 | Other psychoactive substance dependence with other psychoactive substance-induced disorder |
| 304.60 | Other specified drug dependence, unspecified | RB Map | F19.29 | Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder |
| 304.61 | Other specified drug dependence, continuous | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.62 | Other specified drug dependence, episodic | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.63 | Other specified drug dependence, in remission | RB Map | F18.21 | Inhalant dependence, in remission |
| 304.63 | Other specified drug dependence, in remission | F Map | F19.21 | Other psychoactive substance dependence, in remission |
| 304.70 | Combinations of opioid type drug with any other drug dependence, unspecified | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.71 | Combinations of opioid type drug with any other drug dependence, continuous | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.72 | Combinations of opioid type drug with any other drug dependence, episodic | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.73 | Combinations of opioid type drug with any other drug dependence, in remission | F Map | F19.21 | Other psychoactive substance dependence, in remission |
| 304.80 | Combinations of drug dependence excluding opioid type drug, unspecified | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.81 | Combinations of drug dependence excluding opioid type drug, continuous | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.82 | Combinations of drug dependence excluding opioid type drug, episodic | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.83 | Combinations of drug dependence excluding opioid type drug, in remission | F Map | F19.21 | Other psychoactive substance dependence, in remission |
| 304.90 | Unspecified drug dependence, unspecified | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.91 | Unspecified drug dependence, continuous | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.92 | Unspecified drug dependence, episodic | F Map | F19.20 | Other psychoactive substance dependence, uncomplicated |
| 304.93 | Unspecified drug dependence, in remission | F Map | F19.21 | Other psychoactive substance dependence, in remission |
| 305.00 | Alcohol abuse, unspecified | F Map | F10.10 | Alcohol abuse, uncomplicated |
| 305.00 | Alcohol abuse, unspecified | RB Map | F10.120 | Alcohol abuse with intoxication, uncomplicated |
| 305.00 | Alcohol abuse, unspecified | RB Map | F10.129 | Alcohol abuse with intoxication, unspecified |
| 305.01 | Alcohol abuse, continuous | F Map | F10.10 | Alcohol abuse, uncomplicated |
| 305.01 | Alcohol abuse, continuous | RB Map | F10.120 | Alcohol abuse with intoxication, uncomplicated |
| 305.01 | Alcohol abuse, continuous | RB Map | F10.129 | Alcohol abuse with intoxication, unspecified |
| 305.02 | Alcohol abuse, episodic | F Map | F10.10 | Alcohol abuse, uncomplicated |
| 305.02 | Alcohol abuse, episodic | RB Map | F10.120 | Alcohol abuse with intoxication, uncomplicated |
| 305.02 | Alcohol abuse, episodic | RB Map | F10.129 | Alcohol abuse with intoxication, unspecified |
| 305.03 | Alcohol abuse, in remission | F Map | F10.11 | Alcohol abuse, in remission |
| 305.1 | Tobacco use disorder | F Map | F17.200 | Nicotine dependence, unspecified, uncomplicated |
| 305.1 | Tobacco use disorder | RB Map | F17.201 | Nicotine dependence, unspecified, in remission |
| 305.1 | Tobacco use disorder | RB Map | F17.210 | Nicotine dependence, cigarettes, uncomplicated |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|---|
| 305.1 | Tobacco use disorder | RB Map | F17.211 | Nicotine dependence, cigarettes, in remission |
| 305.1 | Tobacco use disorder | RB Map | F17.220 | Nicotine dependence, chewing tobacco, uncomplicated |
| 305.1 | Tobacco use disorder | RB Map | F17.221 | Nicotine dependence, chewing tobacco, in remission |
| 305.1 | Tobacco use disorder | RB Map | F17.290 | Nicotine dependence, other tobacco product, uncomplicated |
| 305.1 | Tobacco use disorder | RB Map | F17.291 | Nicotine dependence, other tobacco product, in remission |
| 305.20 | Cannabis abuse, unspecified | F Map | F12.10 | Cannabis abuse, uncomplicated |
| 305.20 | Cannabis abuse, unspecified | RB Map | F12.90 | Cannabis use, unspecified, uncomplicated |
| 305.21 | Cannabis abuse, continuous | F Map | F12.10 | Cannabis abuse, uncomplicated |
| 305.21 | Cannabis abuse, continuous | F Map | F12.90 | Cannabis use, unspecified, uncomplicated |
| 305.22 | Cannabis abuse, episodic | F Map | F12.10 | Cannabis abuse, uncomplicated |
| 305.22 | Cannabis abuse, episodic | F Map | F12.90 | Cannabis use, unspecified, uncomplicated |
| 305.23 | Cannabis abuse, in remission | F Map | F12.11 | Cannabis abuse, in remission |
| 305.30 | Hallucinogen abuse, unspecified | F Map | F16.10 | Hallucinogen abuse, uncomplicated |
| 305.30 | Hallucinogen abuse, unspecified | RB Map | F16.120 | Hallucinogen abuse with intoxication, uncomplicated |
| 305.30 | Hallucinogen abuse, unspecified | RB Map | F16.90 | Hallucinogen use, unspecified, uncomplicated |
| 305.31 | Hallucinogen abuse, continuous | F Map | F16.10 | Hallucinogen abuse, uncomplicated |
| 305.31 | Hallucinogen abuse, continuous | RB Map | F16.120 | Hallucinogen abuse with intoxication, uncomplicated |
| 305.32 | Hallucinogen abuse, episodic | F Map | F16.10 | Hallucinogen abuse, uncomplicated |
| 305.32 | Hallucinogen abuse, episodic | RB Map | F16.120 | Hallucinogen abuse with intoxication, uncomplicated |
| 305.33 | Hallucinogen abuse, in remission | F Map | F16.11 | Hallucinogen abuse, in remission |
| 305.40 | Sedative, hypnotic or anxiolytic abuse, unspecified | F Map | F13.10 | Sedative, hypnotic or anxiolytic abuse, uncomplicated |
| 305.40 | Sedative, hypnotic or anxiolytic abuse, unspecified | RB Map | F13.120 | Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated |
| 305.40 | Sedative, hypnotic or anxiolytic abuse, unspecified | RB Map | F13.90 | Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated |
| 305.41 | Sedative, hypnotic or anxiolytic abuse, continuous | F Map | F13.10 | Sedative, hypnotic or anxiolytic abuse, uncomplicated |
| 305.41 | Sedative, hypnotic or anxiolytic abuse, continuous | RB Map | F13.120 | Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated |
| 305.42 | Sedative, hypnotic or anxiolytic abuse, episodic | F Map | F13.10 | Sedative, hypnotic or anxiolytic abuse, uncomplicated |
| 305.42 | Sedative, hypnotic or anxiolytic abuse, episodic | RB Map | F13.120 | Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated |
| 305.43 | Sedative, hypnotic or anxiolytic abuse, in remission | F Map | F13.11 | Sedative, hypnotic or anxiolytic abuse, in remission |
| 305.50 | Opioid abuse, unspecified | F Map | F11.10 | Opioid abuse, uncomplicated |
| 305.50 | Opioid abuse, unspecified | RB Map | F11.120 | Opioid abuse with intoxication, uncomplicated |
| 305.50 | Opioid abuse, unspecified | RB Map | F11.129 | Opioid abuse with intoxication, unspecified |
| 305.50 | Opioid abuse, unspecified | RB Map | F11.90 | Opioid use, unspecified, uncomplicated |
| 305.51 | Opioid abuse, continuous | F Map | F11.10 | Opioid abuse, uncomplicated |
| 305.51 | Opioid abuse, continuous | RB Map | F11.120 | Opioid abuse with intoxication, uncomplicated |
| 305.51 | Opioid abuse, continuous | RB Map | F11.129 | Opioid abuse with intoxication, unspecified |
| 305.52 | Opioid abuse, episodic | F Map | F11.10 | Opioid abuse, uncomplicated |
| 305.52 | Opioid abuse, episodic | RB Map | F11.120 | Opioid abuse with intoxication, uncomplicated |
| 305.52 | Opioid abuse, episodic | RB Map | F11.129 | Opioid abuse with intoxication, unspecified |
| 305.53 | Opioid abuse, in remission | F Map | F11.11 | Opioid abuse, in remission |
| 305.60 | Cocaine abuse, unspecified | F Map | F14.10 | Cocaine abuse, uncomplicated |
| 305.60 | Cocaine abuse, unspecified | RB Map | F14.120 | Cocaine abuse with intoxication, uncomplicated |
| 305.60 | Cocaine abuse, unspecified | RB Map | F14.90 | Cocaine use, unspecified, uncomplicated |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 305.61 | Cocaine abuse, continuous | F Map | F14.10 | Cocaine abuse, uncomplicated |
| 305.61 | Cocaine abuse, continuous | RB Map | F14.120 | Cocaine abuse with intoxication, uncomplicated |
| 305.62 | Cocaine abuse, episodic | F Map | F14.10 | Cocaine abuse, uncomplicated |
| 305.62 | Cocaine abuse, episodic | RB Map | F14.120 | Cocaine abuse with intoxication, uncomplicated |
| 305.63 | Cocaine abuse, in remission | F Map | F14.11 | Cocaine abuse, in remission |
| 305.7 | Amphetamine or related acting sympathomimetic abuse, unspecified | RB Map | F15.120 | Other stimulant abuse with intoxication, uncomplicated |
| 305.70 | Amphetamine or related acting sympathomimetic abuse, unspecified | F Map | F15.10 | Other stimulant abuse, uncomplicated |
| 305.70 | Amphetamine or related acting sympathomimetic abuse, unspecified | RB Map | F15.90 | Other stimulant use, unspecified, uncomplicated |
| 305.71 | Amphetamine or related acting sympathomimetic abuse, continuous | F Map | F15.10 | Other stimulant abuse, uncomplicated |
| 305.71 | Amphetamine or related acting sympathomimetic abuse, continuous | RB Map | F15.120 | Other stimulant abuse with intoxication, uncomplicated |
| 305.72 | Amphetamine or related acting sympathomimetic abuse, episodic | F Map | F15.10 | Other stimulant abuse, uncomplicated |
| 305.72 | Amphetamine or related acting sympathomimetic abuse, episodic | RB Map | F15.120 | Other stimulant abuse with intoxication, uncomplicated |
| 305.73 | Amphetamine or related acting sympathomimetic abuse, in remission | F Map | F15.11 | Other stimulant abuse, in remission |
| 305.80 | Antidepressant type abuse, unspecified | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.80 | Antidepressant type abuse, unspecified | RB Map | F19.120 | Other psychoactive substance abuse with intoxication, uncomplicated |
| 305.80 | Antidepressant type abuse, unspecified | RB Map | F19.90 | Other psychoactive substance use, unspecified, uncomplicated |
| 305.81 | Antidepressant type abuse, continuous | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.81 | Antidepressant type abuse, continuous | RB Map | F19.120 | Other psychoactive substance abuse with intoxication, uncomplicated |
| 305.82 | Antidepressant type abuse, episodic | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.82 | Antidepressant type abuse, episodic | RB Map | F19.120 | Other psychoactive substance abuse with intoxication, uncomplicated |
| 305.83 | Antidepressant type abuse, in remission | F Map | F19.11 | Other psychoactive substance abuse, in remission |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | F Map | F18.10 | Inhalant abuse, uncomplicated |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F18.120 | Inhalant abuse with intoxication, uncomplicated |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F18.90 | Inhalant use, unspecified, uncomplicated |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.0 | Abuse of antacids |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.1 | Abuse of herbal or folk remedies |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.2 | Abuse of laxatives |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.3 | Abuse of steroids or hormones |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.4 | Abuse of vitamins |
| 305.90 | Other, mixed, or unspecified drug abuse, unspecified | RB Map | F55.8 | Abuse of other non-psychoactive substances |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | F Map | F18.10 | Inhalant abuse, uncomplicated |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F18.120 | Inhalant abuse with intoxication, uncomplicated |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.0 | Abuse of antacids |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.1 | Abuse of herbal or folk remedies |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.2 | Abuse of laxatives |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.3 | Abuse of steroids or hormones |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.4 | Abuse of vitamins |
| 305.91 | Other, mixed, or unspecified drug abuse, continuous | RB Map | F55.8 | Abuse of other non-psychoactive substances |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | F Map | F18.10 | Inhalant abuse, uncomplicated |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F18.120 | Inhalant abuse with intoxication, uncomplicated |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | F Map | F19.10 | Other psychoactive substance abuse, uncomplicated |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.0 | Abuse of antacids |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.1 | Abuse of herbal or folk remedies |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.2 | Abuse of laxatives |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.3 | Abuse of steroids or hormones |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.4 | Abuse of vitamins |
| 305.92 | Other, mixed, or unspecified drug abuse, episodic | RB Map | F55.8 | Abuse of other non-psychoactive substances |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | F Map | F18.11 | Inhalant abuse, in remission |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | F Map | F19.11 | Other psychoactive substance abuse, in remission |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.0 | Abuse of antacids |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.1 | Abuse of herbal or folk remedies |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.2 | Abuse of laxatives |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.3 | Abuse of steroids or hormones |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.4 | Abuse of vitamins |
| 305.93 | Other, mixed, or unspecified drug abuse, in remission | RB Map | F55.8 | Abuse of other non-psychoactive substances |
| 306.0 | Musculoskeletal malfunction arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.1 | Respiratory malfunction arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.2 | Cardiovascular malfunction arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.3 | Skin disorder arising from mental factors | F Map | F42.4 | Excoriation (skin-picking) disorder |
| 306.3 | Skin disorder arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.4 | Gastrointestinal malfunction arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.50 | Psychogenic genitourinary malfunction, unspecified | F Map | F45.8 | Other somatoform disorders |
| 306.51 | Psychogenic vaginismus | F Map | F52.5 | Vaginismus not due to a substance or known physiological condition |
| 306.52 | Psychogenic dysmenorrhea | F Map | F45.8 | Other somatoform disorders |
| 306.53 | Psychogenic dysuria | F Map | F45.8 | Other somatoform disorders |
| 306.59 | Other genitourinary malfunction arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.6 | Endocrine disorder arising from mental factors | F Map | F45.8 | Other somatoform disorders |
| 306.7 | Disorder of organs of special sense arising from mental factors | F Map | F45.8 | Other somatoform disorders |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|--|----------|-------------|--|
| 306.8 | Other specified psychophysiological malfunction | F Map | F45.8 | Other somatoform disorders |
| 306.8 | Other specified psychophysiological malfunction | F Map | F59. | Unspecified behavioral syndromes associated with physiological disturbances and physical factors |
| 306.9 | Unspecified psychophysiological malfunction | F Map | F45.9 | Somatoform disorder, unspecified |
| 307.0 | Adult onset fluency disorder | F Map | F98.5 | Adult onset fluency disorder |
| 307.1 | Anorexia nervosa | F Map | F50.00 | Anorexia nervosa, unspecified |
| 307.1 | Anorexia nervosa | RB Map | F50.01 | Anorexia nervosa, restricting type |
| 307.1 | Anorexia nervosa | RB Map | F50.02 | Anorexia nervosa, binge eating/purging type |
| 307.20 | Tic disorder, unspecified | RB Map | F95.8 | Other tic disorders |
| 307.20 | Tic disorder, unspecified | F Map | F95.9 | Tic disorder, unspecified |
| 307.21 | Transient tic disorder | F Map | F95.0 | Transient tic disorder |
| 307.22 | Chronic motor or vocal tic disorder | F Map | F95.1 | Chronic motor or vocal tic disorder |
| 307.23 | Tourette's disorder | F Map | F95.2 | Tourette's disorder |
| 307.3 | Stereotypic movement disorder | F Map | F98.4 | Stereotyped movement disorders |
| 307.40 | Nonorganic sleep disorder, unspecified | F Map | F51.9 | Sleep disorder not due to a substance or known physiological condition, unspecified |
| 307.41 | Transient disorder of initiating or maintaining sleep | F Map | F51.02 | Adjustment insomnia |
| 307.41 | Transient disorder of initiating or maintaining sleep | F Map | F51.09 | Other insomnia not due to a substance or known physiological condition |
| 307.42 | Persistent disorder of initiating or maintaining sleep | F Map | F51.01 | Primary insomnia |
| 307.42 | Persistent disorder of initiating or maintaining sleep | F Map | F51.03 | Paradoxical insomnia |
| 307.42 | Persistent disorder of initiating or maintaining sleep | F Map | F51.09 | Other insomnia not due to a substance or known physiological condition |
| 307.43 | Transient disorder of initiating or maintaining wakefulness | F Map | F51.19 | Other hypersomnia not due to a substance or known physiological condition |
| 307.44 | Persistent disorder of initiating or maintaining wakefulness | F Map | F51.11 | Primary hypersomnia |
| 307.44 | Persistent disorder of initiating or maintaining wakefulness | F Map | F51.12 | Insufficient sleep syndrome |
| 307.44 | Persistent disorder of initiating or maintaining wakefulness | F Map | F51.19 | Other hypersomnia not due to a substance or known physiological condition |
| 307.45 | Circadian rhythm sleep disorder of nonorganic origin | F Map | F51.8 | Other sleep disorders not due to a substance or known physiological condition |
| 307.46 | Sleep arousal disorder | F Map | F51.3 | Sleepwalking [somnambulism] |
| 307.46 | Sleep arousal disorder | RB Map | F51.4 | Sleep terrors [night terrors] |
| 307.47 | Other dysfunctions of sleep stages or arousal from sleep | RB Map | F51.5 | Nightmare disorder |
| 307.47 | Other dysfunctions of sleep stages or arousal from sleep | F Map | F51.8 | Other sleep disorders not due to a substance or known physiological condition |
| 307.48 | Repetitive intrusions of sleep | F Map | F51.8 | Other sleep disorders not due to a substance or known physiological condition |
| 307.49 | Other specific disorders of sleep of nonorganic origin | F Map | F51.8 | Other sleep disorders not due to a substance or known physiological condition |
| 307.50 | Eating disorder, unspecified | F Map | F50.9 | Eating disorder, unspecified |
| 307.51 | Bulimia nervosa | F Map | F50.2 | Bulimia nervosa |
| 307.52 | Pica | F Map | F98.3 | Pica of infancy and childhood |
| 307.53 | Rumination disorder | F Map | F98.21 | Rumination disorder of infancy |
| 307.54 | Psychogenic vomiting | F Map | F50.89 | Other specified eating disorder |
| 307.59 | Other disorders of eating | F Map | F50.81 | Binge eating disorder |
| 307.59 | Other disorders of eating | F Map | F50.82 | Avoidant/restrictive food intake disorder |
| 307.59 | Other disorders of eating | F Map | F50.89 | Other specified eating disorder |
| 307.59 | Other disorders of eating | F Map | F98.29 | Other feeding disorders of infancy and early childhood |
| 307.6 | Enuresis | F Map | F98.0 | Enuresis not due to a substance or known physiological condition |
| 307.7 | Encopresis | F Map | F98.1 | Encopresis not due to a substance or known physiological condition |
| 307.80 | Psychogenic pain, site unspecified | F Map | F45.41 | Pain disorder exclusively related to psychological factors |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|---|
| 307.81 | Tension headache | F Map | G44.209 | Tension-type headache, unspecified, not intractable |
| 307.89 | Other pain disorders related to psychological factors | F Map | F45.42 | Pain disorder with related psychological factors |
| 307.9 | Other and unspecified special symptoms or syndromes, not elsewhere classified | F Map | F63.3 | Trichotillomania |
| 307.9 | Other and unspecified special symptoms or syndromes, not elsewhere classified | F Map | R45.1 | Restlessness and agitation |
| 307.9 | Other and unspecified special symptoms or syndromes, not elsewhere classified | RB Map | R45.81 | Low self-esteem |
| 307.9 | Other and unspecified special symptoms or syndromes, not elsewhere classified | RB Map | R45.82 | Worries |
| 308.0 | Predominant disturbance of emotions | F Map | F43.0 | Acute stress reaction |
| 308.1 | Predominant disturbance of consciousness | F Map | F43.0 | Acute stress reaction |
| 308.2 | Predominant psychomotor disturbance | F Map | F43.0 | Acute stress reaction |
| 308.3 | Other acute reactions to stress | F Map | F43.0 | Acute stress reaction |
| 308.4 | Mixed disorders as reaction to stress | F Map | F43.0 | Acute stress reaction |
| 308.9 | Unspecified acute reaction to stress | F Map | F43.0 | Acute stress reaction |
| 308.9 | Unspecified acute reaction to stress | F Map | R45.7 | State of emotional shock and stress, unspecified |
| 309.0 | Adjustment disorder with depressed mood | F Map | F43.21 | Adjustment disorder with depressed mood |
| 309.1 | Prolonged depressive reaction | F Map | F43.21 | Adjustment disorder with depressed mood |
| 309.21 | Separation anxiety disorder | F Map | F93.0 | Separation anxiety disorder of childhood |
| 309.22 | Emancipation disorder of adolescence and early adult life | F Map | F94.8 | Other childhood disorders of social functioning |
| 309.23 | Specific academic or work inhibition | F Map | F94.8 | Other childhood disorders of social functioning |
| 309.24 | Adjustment disorder with anxiety | F Map | F43.22 | Adjustment disorder with anxiety |
| 309.28 | Adjustment disorder with mixed anxiety and depressed mood | F Map | F43.23 | Adjustment disorder with mixed anxiety and depressed mood |
| 309.29 | Other adjustment reactions with predominant disturbance of other emotions | F Map | F43.29 | Adjustment disorder with other symptoms |
| 309.29 | Other adjustment reactions with predominant disturbance of other emotions | F Map | F94.8 | Other childhood disorders of social functioning |
| 309.3 | Adjustment disorder with disturbance of conduct | F Map | F43.24 | Adjustment disorder with disturbance of conduct |
| 309.4 | Adjustment disorder with mixed disturbance of emotions and conduct | F Map | F43.25 | Adjustment disorder with mixed disturbance of emotions and conduct |
| 309.81 | Posttraumatic stress disorder | F Map | F43.10 | Post-traumatic stress disorder, unspecified |
| 309.81 | Posttraumatic stress disorder | RB Map | F43.11 | Post-traumatic stress disorder, acute |
| 309.81 | Posttraumatic stress disorder | F Map | F43.12 | Post-traumatic stress disorder, chronic |
| 309.82 | Adjustment reaction with physical symptoms | F Map | F43.8 | Other reactions to severe stress |
| 309.83 | Adjustment reaction with withdrawal | F Map | F43.8 | Other reactions to severe stress |
| 309.89 | Other specified adjustment reactions | F Map | F43.8 | Other reactions to severe stress |
| 309.9 | Unspecified adjustment reaction | F Map | F43.20 | Adjustment disorder, unspecified |
| 309.9 | Unspecified adjustment reaction | RB Map | F43.9 | Reaction to severe stress, unspecified |
| 310.0 | Frontal lobe syndrome | F Map | F07.0 | Personality change due to known physiological condition |
| 310.1 | Personality change due to conditions classified elsewhere | F Map | F07.0 | Personality change due to known physiological condition |
| 310.2 | Postconcussion syndrome | F Map | F07.81 | Postconcussional syndrome |
| 310.81 | Pseudobulbar affect | F Map | F48.2 | Pseudobulbar affect |
| 310.89 | Other specified nonpsychotic mental disorders following organic brain damage | F Map | F07.89 | Other personality and behavioral disorders due to known physiological condition |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 310.9 | Unspecified nonpsychotic mental disorder following organic brain damage | RB Map | F07.9 | Unspecified personality and behavioral disorder due to known physiological condition |
| 310.9 | Unspecified nonpsychotic mental disorder following organic brain damage | F Map | F09. | Unspecified mental disorder due to known physiological condition |
| 311. | Depressive disorder, not elsewhere classified | F Map | F32.9 | Major depressive disorder, single episode, unspecified |
| 312.00 | Undersocialized conduct disorder, aggressive type, unspecified | F Map | F91.1 | Conduct disorder, childhood-onset type |
| 312.01 | Undersocialized conduct disorder, aggressive type, mild | F Map | F91.1 | Conduct disorder, childhood-onset type |
| 312.02 | Undersocialized conduct disorder, aggressive type, moderate | F Map | F91.1 | Conduct disorder, childhood-onset type |
| 312.03 | Undersocialized conduct disorder, aggressive type, severe | F Map | F91.1 | Conduct disorder, childhood-onset type |
| 312.10 | Undersocialized conduct disorder, unaggressive type, unspecified | F Map | F91.8 | Other conduct disorders |
| 312.11 | Undersocialized conduct disorder, unaggressive type, mild | F Map | F91.8 | Other conduct disorders |
| 312.12 | Undersocialized conduct disorder, unaggressive type, moderate | F Map | F91.8 | Other conduct disorders |
| 312.13 | Undersocialized conduct disorder, unaggressive type, severe | F Map | F91.8 | Other conduct disorders |
| 312.20 | Socialized conduct disorder, unspecified | F Map | F91.2 | Conduct disorder, adolescent-onset type |
| 312.21 | Socialized conduct disorder, mild | F Map | F91.2 | Conduct disorder, adolescent-onset type |
| 312.22 | Socialized conduct disorder, moderate | F Map | F91.2 | Conduct disorder, adolescent-onset type |
| 312.23 | Socialized conduct disorder, severe | F Map | F91.2 | Conduct disorder, adolescent-onset type |
| 312.30 | Impulse control disorder, unspecified | F Map | F63.9 | Impulse disorder, unspecified |
| 312.31 | Pathological gambling | F Map | F63.0 | Pathological gambling |
| 312.32 | Kleptomania | F Map | F63.2 | Kleptomania |
| 312.33 | Pyromania | F Map | F63.1 | Pyromania |
| 312.34 | Intermittent explosive disorder | F Map | F63.81 | Intermittent explosive disorder |
| 312.35 | Isolated explosive disorder | F Map | F63.81 | Intermittent explosive disorder |
| 312.39 | Other disorders of impulse control | F Map | F63.3 | Trichotillomania |
| 312.39 | Other disorders of impulse control | F Map | F63.89 | Other impulse disorders |
| 312.4 | Mixed disturbance of conduct and emotions | F Map | F91.8 | Other conduct disorders |
| 312.81 | Conduct disorder, childhood onset type | F Map | F91.1 | Conduct disorder, childhood-onset type |
| 312.82 | Conduct disorder, adolescent onset type | F Map | F91.2 | Conduct disorder, adolescent-onset type |
| 312.89 | Other conduct disorder | RB Map | F91.0 | Conduct disorder confined to family context |
| 312.89 | Other conduct disorder | F Map | F91.8 | Other conduct disorders |
| 312.9 | Unspecified disturbance of conduct | F Map | F91.9 | Conduct disorder, unspecified |
| 313.0 | Overanxious disorder specific to childhood and adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.1 | Misery and unhappiness disorder specific to childhood and adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.21 | Shyness disorder of childhood | F Map | F93.8 | Other childhood emotional disorders |
| 313.22 | Introverted disorder of childhood | F Map | F93.8 | Other childhood emotional disorders |
| 313.23 | Selective mutism | F Map | F94.0 | Selective mutism |
| 313.3 | Relationship problems specific to childhood and adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.81 | Oppositional defiant disorder | F Map | F91.3 | Oppositional defiant disorder |
| 313.82 | Identity disorder of childhood or adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.83 | Academic underachievement disorder of childhood or adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.89 | Other emotional disturbances of childhood or adolescence | F Map | F93.8 | Other childhood emotional disorders |
| 313.89 | Other emotional disturbances of childhood or adolescence | F Map | F94.1 | Reactive attachment disorder of childhood |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|------------|---|----------|-------------|--|
| 313.89 | Other emotional disturbances of childhood or adolescence | RB Map | F94.2 | Disinhibited attachment disorder of childhood |
| 313.89 | Other emotional disturbances of childhood or adolescence | RB Map | F94.9 | Childhood disorder of social functioning, unspecified |
| 313.89 | Other emotional disturbances of childhood or adolescence | F Map | F98.8 | Other specified behavioral and emotional disorders with onset usually occurring in childhood and adolescence |
| 313.9 | Unspecified emotional disturbance of childhood or adolescence | F Map | F93.9 | Childhood emotional disorder, unspecified |
| 313.9 | Unspecified emotional disturbance of childhood or adolescence | F Map | F94.8 | Other childhood disorders of social functioning |
| 313.9 | Unspecified emotional disturbance of childhood or adolescence | F Map | F98.9 | Unspecified behavioral and emotional disorders with onset usually occurring in childhood and adolescence |
| 314.00 | Attention deficit disorder without mention of hyperactivity | F Map | F90.0 | Attention-deficit hyperactivity disorder, predominantly inattentive type |
| 314.00 | Attention deficit disorder without mention of hyperactivity | F Map | F90.9 | Attention-deficit hyperactivity disorder, unspecified type |
| 314.01 | Attention deficit disorder with hyperactivity | F Map | F90.1 | Attention-deficit hyperactivity disorder, predominantly hyperactive type |
| 314.01 | Attention deficit disorder with hyperactivity | F Map | F90.2 | Attention-deficit hyperactivity disorder, combined type |
| 314.01 | Attention deficit disorder with hyperactivity | RB Map | F90.8 | Attention-deficit hyperactivity disorder, other type |
| 314.01 | Attention deficit disorder with hyperactivity | F Map | F90.9 | Attention-deficit hyperactivity disorder, unspecified type |
| 314.1 | Hyperkinesis with developmental delay | F Map | F90.8 | Attention-deficit hyperactivity disorder, other type |
| 314.2 | Hyperkinetic conduct disorder | F Map | F90.8 | Attention-deficit hyperactivity disorder, other type |
| 314.8 | Other specified manifestations of hyperkinetic syndrome | F Map | F90.8 | Attention-deficit hyperactivity disorder, other type |
| 314.9 | Unspecified hyperkinetic syndrome | F Map | F90.9 | Attention-deficit hyperactivity disorder, unspecified type |
| 315.00 | Developmental reading disorder, unspecified | F Map | F81.0 | Specific reading disorder |
| 315.01 | Alexia | F Map | R48.0 | Dyslexia and alexia |
| 315.02 | Developmental dyslexia | F Map | F81.0 | Specific reading disorder |
| 315.09 | Other specific developmental reading disorder | F Map | F81.81 | Disorder of written expression |
| 315.1 | Mathematics disorder | F Map | F81.2 | Mathematics disorder |
| 315.2 | Other specific developmental learning difficulties | F Map | F81.81 | Disorder of written expression |
| 315.2 | Other specific developmental learning difficulties | F Map | F81.89 | Other developmental disorders of scholastic skills |
| 315.31 | Expressive language disorder | F Map | F80.1 | Expressive language disorder |
| 315.32 | Mixed receptive-expressive language disorder | F Map | F80.2 | Mixed receptive-expressive language disorder |
| 315.32 | Mixed receptive-expressive language disorder | F Map | H93.25 | Central auditory processing disorder |
| 315.34 | Speech and language developmental delay due to hearing loss | F Map | F80.4 | Speech and language development delay due to hearing loss |
| 315.35 | Childhood onset fluency disorder | F Map | F80.81 | Childhood onset fluency disorder |
| 315.39 | Other developmental speech or language disorder | F Map | F80.0 | Phonological disorder |
| 315.39 | Other developmental speech or language disorder | F Map | F80.82 | Social pragmatic communication disorder |
| 315.39 | Other developmental speech or language disorder | F Map | F80.89 | Other developmental disorders of speech and language |
| 315.39 | Other developmental speech or language disorder | RB Map | F80.9 | Developmental disorder of speech and language, unspecified |
| 315.4 | Developmental coordination disorder | F Map | F82. | Specific developmental disorder of motor function |
| 315.5 | Mixed development disorder | F Map | F82. | Specific developmental disorder of motor function |
| 315.8 | Other specified delays in development | F Map | F88. | Other disorders of psychological development |
| 315.9 | Unspecified delay in development | F Map | F81.9 | Developmental disorder of scholastic skills, unspecified |

| ICD-9 Code | ICD-9 Description | Map Type | ICD-10 Code | ICD-10 Description |
|-------------------|---|-----------------|--------------------|---|
| 315.9 | Unspecified delay in development | F Map | F89. | Unspecified disorder of psychological development |
| 316. | Psychic factors associated with diseases classified elsewhere | F Map | F54. | Psychological and behavioral factors associated with disorders or diseases classified elsewhere |
| 317. | Mild intellectual disabilities | F Map | F70. | Mild intellectual disabilities |
| 318.0 | Moderate intellectual disabilities | F Map | F71. | Moderate intellectual disabilities |
| 318.1 | Severe intellectual disabilities | F Map | F72. | Severe intellectual disabilities |
| 318.2 | Profound intellectual disabilities | F Map | F73. | Profound intellectual disabilities |
| 319. | Unspecified intellectual disabilities | RB Map | F78. | Other intellectual disabilities |
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Table 1
Summary of Emergency Department Visits

| ED Visits for All Ages | Pre-ACA | | Post-ACA | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2009 | 2011 | 2012 | 2013 |
| | N=28,861,047 | N=28,788,399 | N=31,091,020 | N=29,581,718 |
| | n (%) | n (%) | n (%) | n (%) |
| ED Visits with at least one Diagnosis | 28,857,685 (99.99) | 28,778,945 (99.97) | 31,081,397 (99.97) | 29,566,546 (99.95) |
| ED Visits with no Diagnosis | 3,362 (0.01) | 9,454 (0.03) | 9,623 (0.03) | 15,172 (0.05) |
| ED Visits for adults ages of 18 to 64 | 17,647,987 (61.1) | 17,851,375 (62.0) | 19,332,543 (62.2) | 18,422,747 (62.3) |
| Change from Pre-ACA in number of ED visits for all ages | N/A | -72,648 | 2,229,973 | 720,671 |
| Change from Pre-ACA in number of ED visits for adults ages 18 to 64 | N/A | 203,388 | 1,684,556 | 774,760 |
| Change from Pre-ACA in Percent of ED visits for adults ages 18 to 64 | N/A | 0.9% | 1.0% | 1.1% |

Note: Percentages are based on total visits, N.

Table 1 (Continued)
Summary of Emergency Department Visits

| ED Visits for All Ages | Pre-ACA | | Post-ACA | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2009 | 2014 | 2015 | 2016 |
| | N=28,861,047 | N=31,026,417 | N=30,542,691 | N=32,680,232 |
| | n (%) | n (%) | n (%) | n (%) |
| ED Visits with at least one Diagnosis | 28,857,685 (99.99) | 31,018,357 (99.97) | 30,517,883 (99.92) | 32,673,763 (99.98) |
| ED Visits with no Diagnosis | 3,362 (0.01) | 8,060 (0.03) | 24808 (0.08) | 6,469 (0.02) |
| ED Visits for adults ages of 18 to 64 | 17,647,987 (61.1) | 19,504,512 (62.9) | 18,755,893 (61.4) | 20,077,331 (61.4) |
| Change from Pre-ACA in number of ED visits for all ages | N/A | 2,165,370 | 1,681,644 | 3,819,185 |
| Change from Pre-ACA in number of ED visits for adults ages 18 to 64 | N/A | 1,856,525 | 1,107,906 | 2,429,344 |
| Change from Pre-ACA in Percent of ED visits for adults ages 18 to 64 | N/A | 1.7% | 0.3% | 0.3% |

Note: Percentages are based on total visits, N.

Table 2
Summary of Emergency Department Visits for Adults Aged 18 to 64

| All ED Visits for Adults 18≤ age ≤64 | Pre-ACA | Post-ACA | | |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2009 | 2011 | 2012 | 2013 |
| | N=17,647,987 | N=17,851,375 | N=19,332,543 | N=18,422,747 |
| | n (%) | n (%) | n (%) | n (%) |
| ED Visits with at least one Diagnosis | 17,645,539 (99.99) | 17,845,772 (99.97) | 19,325,068 (99.96) | 18,412,805 (99.95) |
| ED visits with no Diagnosis | 2,448 (0.01) | 5,603 (0.03) | 7,475 (0.04) | 9,942 (0.05) |

Note: Percentages are based on total visits, N.

Table 2 (Continued)
Summary of Emergency Department Visits for Adults Aged 18 to 64

| All ED Visits for Adults 18≤ age ≤64 | Pre-ACA | Post-ACA | | |
|---------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2009 | 2014 | 2015 | 2016 |
| | N=17,647,987 | N=19,504,512 | N=18,755,893 | N=20,077,331 |
| | n (%) | n (%) | n (%) | n (%) |
| ED Visits with at least one Diagnosis | 17,645,539 (99.99) | 19,498,007 (99.97) | 18,738,803 (99.91) | 20,073,238 (99.98) |
| ED visits with no Diagnosis | 2,448 (0.01) | 6,505 (0.03) | 17,090 (0.09) | 4,093 (0.02) |

Note: Percentages are based on total visits, N.

Table 3
Summary of Psychiatric-Related Emergency Department Visits

| All ED Visits with At Least One Diagnosis for Adults 18≤ age ≤64 | Pre-ACA | Post-ACA | | |
|---|----------------------|----------------------|----------------------|----------------------|
| | 2009 | 2011 | 2012 | 2013 |
| | N=17,645,539 | N=17,845,772 | N=19,325,068 | N=18,412,805 |
| | n (%) | n (%) | n (%) | n (%) |
| ED visits with at least one Psychiatric Diagnosis | 4,253,110 (24.1) | 4,717,856 (26.4) | 5,267,941 (27.3) | 5,261,875 (28.6) |
| ED visits with No Psychiatric Diagnosis | 13,392,429 (75.9) | 13,127,916 (73.6) | 14,057,127 (72.7) | 13,150,930 (71.4) |
| Change from Pre-ACA in number of psychiatric-related ED visits | N/A | 464,746 | 1,014,831 | 1,008,765 |
| Change from Pre-ACA in percentage of psychiatric-related ED visits | N/A | 2.3% | 3.2% | 4.5% |

Note: Percentages are based on total visits, N.

Table 3 (Continued)
Summary of Psychiatric-Related Emergency Department Visits

| All ED Visits with At Least One Diagnosis for Adults 18≤ age ≤64 | Pre-ACA | Post-ACA | | |
|---|----------------------|----------------------|----------------------|----------------------|
| | 2009 | 2014 | 2015 | 2016 |
| | N=17,645,539 | N=19,498,007 | N=18,738,803 | N=20,073,238 |
| | n (%) | n (%) | n (%) | n (%) |
| ED visits with at least one Psychiatric Diagnosis | 4,253,110 (24.1) | 5,832,444 (29.9) | 5,857,686 (31.3) | 5,986,274 (29.8) |
| ED visits with No Psychiatric Diagnosis | 13,392,429 (75.9) | 13,665,563 (70.1) | 12,881,117 (68.7) | 14,086,964 (70.2) |
| Change from Pre-ACA in number of psychiatric-related ED visits | N/A | 1,579,334 | 1,604,576 | 1,733,164 |
| Change from Pre-ACA in percentage of psychiatric-related ED visits | N/A | 5.8% | 7.2% | 5.7% |

Note: Percentages are based on total visits, N.

Table 4
Summary of Patient Characteristics for Psychiatric-Related Emergency Department Visits

| Psychiatric-Related ED Visits | | Pre-ACA | Post-ACA | | |
|-------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| | | 2009 | 2011 | 2012 | 2013 |
| | | N=4,253,110 n (%) | N=4,717,856 n (%) | N=5,267,941 n (%) | N=5,261,875 n (%) |
| Age | 18 ≤ age ≤ 25 | 749,855 (17.6) | 823,081 (17.4) | 899,050 (17.1) | 874,206 (16.6) |
| | Change from Pre-ACA | N/A | 73,226 (-0.2) | 149,195 (-0.6) | 124,351 (-1.0) |
| | 26 ≤ age ≤ 49 | 2,363,199 (55.6) | 2,560,003 (54.3) | 2,839,605 (53.9) | 2,820,459 (53.6) |
| | Change from Pre-ACA | N/A | 196,804 (-1.3) | 476,406 (-1.7) | 457,260 (-2.0) |
| | 50 ≤ age ≤ 64 | 1,140,056 (26.8) | 1,334,772 (28.3) | 1,529,286 (29.0) | 1,567,210 (29.8) |
| Change from Pre-ACA | N/A | 194,716 (1.5) | 389,230 (2.2) | 427,154 (3.0) | |
| Sex | Male | 2,048,915 (48.2) | 2,267,410 (48.1) | 2,536,702 (48.2) | 2,553,582 (48.5) |
| | Change from Pre-ACA | N/A | 218,495 (-0.1) | 487,787 (-0.02) | 504,667 (0.4) |
| | Female | 2,201,833 (51.8) | 2,449,362 (51.9) | 2,731,029 (51.8) | 2,708,100 (51.5) |
| | Change from Pre-ACA | N/A | 247,529 (0.1) | 529,196 (0.1) | 506,267 (-0.3) |
| | Missing | 2,362 (0.1) | 1,084 (0.02) | 210 (0.004) | 193 (0.004) |
| Change from Pre-ACA | N/A | -1,278 (-0.03) | -2,152 (-0.1) | -2,169 (-0.1) | |
| Payer | Medicare | 594,888 (14.0) | 696,800 (14.8) | 798,249 (15.2) | 798,598 (15.2) |
| | Change from Pre-ACA | N/A | 101,912 (0.8) | 203,361 (1.2) | 203,710 (1.2) |
| | Medicaid | 1,080,543 (25.4) | 1,310,278 (27.8) | 1,466,945 (27.8) | 1,445,845 (27.5) |
| | Change from Pre-ACA | N/A | 229,735 (2.4) | 386,402 (2.4) | 365,302 (2.1) |
| | Private | 1,161,704 (27.3) | 1,188,336 (25.2) | 1,250,220 (23.7) | 1,240,697 (23.6) |
| | Change from Pre-ACA | N/A | 26,632 (-2.1) | 88,516 (-3.6) | 78,993 (-3.7) |
| | Uninsured | 1,397,543 (32.9) | 1,503,730 (31.9) | 1,743,569 (33.1) | 1,765,480 (33.6) |
| | Change from Pre-ACA | N/A | 106,187 (-1.0) | 346,026 (0.2) | 367,937 (0.7) |
| | Missing | 18,432 (0.4) | 18,712 (0.4) | 8,958 (0.2) | 11,255 (0.2) |
| Change from Pre-ACA | N/A | 280 (-0.04) | -9,474 (-0.3) | -7,177 (-0.2) | |
| Region | Urban | 4,041,282 (95.0) | 4,503,377 (95.4) | 5,043,931 (95.7) | 5,010,535 (95.2) |
| | Change from Pre-ACA | N/A | 462,095 (0.4) | 1,002,649 (0.7) | 969,253 (0.2) |
| | Rural | 211,828 (5.0) | 214,479 (4.6) | 224,010 (4.3) | 251,340 (4.8) |
| Change from Pre-ACA | N/A | 2,651 (-0.4) | 12,182 (-0.7) | 39,512 (-0.2) | |

Note: Percentages are based on total visits, N.

Table 4 (Continued)
Summary of Patient Characteristics for Psychiatric-Related Emergency Department Visits

| Psychiatric-Related ED Visits | | Pre-ACA | Post-ACA | | |
|-------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| | | 2009 | 2014 | 2015 | 2016 |
| | | N=4,253,110 n (%) | N=5,832,444 n (%) | N=5,267,686 n (%) | N=5,986,274 n (%) |
| Age | 18 ≤ age ≤ 25 | 749,855 (17.6) | 945,765 (16.2) | 920,502 (15.7) | 910,796 (15.2) |
| | Change from Pre-ACA | N/A | 195,910 (-1.4) | 170,647 (-1.9) | 160,941 (-2.4) |
| | 26 ≤ age ≤ 49 | 2,363,199 (55.6) | 3,107,914 (53.3) | 3,135,229 (53.5) | 3,211,163 (53.6) |
| | Change from Pre-ACA | N/A | 744,715 (-2.3) | 772,030 (-2.0) | 847,964 (-1.9) |
| | 50 ≤ age ≤ 64 | 1,140,056 (26.8) | 1,778,765 (30.5) | 1,801,955 (30.8) | 1,864,315 (31.1) |
| Change from Pre-ACA | N/A | 638,709 (3.7) | 661,899 (4.0) | 724,259 (4.3) | |
| Sex | Male | 2,048,915 (48.2) | 2,858,608 (49.0) | 2,884,558 (49.2) | 2,939,018 (49.1) |
| | Change from Pre-ACA | N/A | 809,693 (0.8) | 835,643 (1.1) | 890,103 (0.9) |
| | Female | 2,201,833 (51.8) | 2,973,647 (51.0) | 2,972,285 (50.7) | 3,046,072 (50.9) |
| | Change from Pre-ACA | N/A | 771,814 (-0.8) | 770,452 (-1.0) | 844,239 (-0.9) |
| | Missing | 2,362 (0.1) | 189 (0.003) | 843 (0.01) | 1,184 (0.02) |
| Change from Pre-ACA | N/A | -2,173 (-0.1) | -1,519 (-0.04) | -1,178 (-0.04) | |
| Payer | Medicare | 594,888 (14.0) | 893,412 (15.3) | 880,447 (15.0) | 900,217 (15.0) |
| | Change from Pre-ACA | N/A | 298,524 (1.3) | 285,559 (1.0) | 305,329 (1.1) |
| | Medicaid | 1,080,543 (25.4) | 2,001,397 (34.3) | 2,076,044 (35.4) | 2,163,754 (36.1) |
| | Change from Pre-ACA | N/A | 920,854 (8.9) | 995,501 (10.0) | 1,083,211 (10.7) |
| | Private | 1,161,704 (27.3) | 1,407,246 (24.1) | 1,508,765 (25.8) | 1,551,449 (25.9) |
| | Change from Pre-ACA | N/A | 245,542 (-3.2) | 347,061 (-1.6) | 389,745 (-1.4) |
| | Uninsured | 1,397,543 (32.9) | 1,519,300 (26.0) | 1,383,423 (23.6) | 1,362,548 (22.8) |
| | Change from Pre-ACA | N/A | 121,757 (-6.8) | -14,120 (-9.2) | -34,995 (-10.1) |
| | Missing | 18,432 (0.4) | 11,089 (0.2) | 9,007 (0.2) | 8,306 (0.1) |
| Change from Pre-ACA | N/A | -7,343 (-0.2) | -9,425 (-0.3) | -10,126 (-0.3) | |
| Region | Urban | 4,041,282 (95.0) | 5,562,407 (95.4) | 5,639,622 (96.3) | 5,626,675 (94.0) |
| | Change from Pre-ACA | N/A | 1,521,125 (0.4) | 1,598,340 (1.3) | 1,585,393 (-1.0) |
| | Rural | 211,828 (5.0) | 270,037 (4.6) | 218,064 (3.7) | 359,599 (6.0) |
| Change from Pre-ACA | N/A | 58,209 (-0.4) | 6,236 (-1.3) | 147,771 (1.0) | |

Note: Percentages are based on total visits, N.

Table 5
Summary of Psychiatric-Related Emergency Department Visit Disposition

| Psychiatric-Related ED Visits Disposition | Pre-ACA | Post-ACA | | |
|---|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=4,253,110 | 2011 N=4,717,856 | 2012 N=5,267,941 | 2013 N=5,261,875 |
| | n (%) | n (%) | n (%) | n (%) |
| Treated and Released | 3,120,641 (73.4) | 3,570,582 (75.7) | 4,040,346 (76.7) | 4,077,050 (77.5) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,134,480 (24.0) | 1,217,517 (23.1) | 1,173,982 (22.3) |
| Other | 11,878 (0.3) | 12,794 (0.3) | 10,078 (0.2) | 10,843 (0.2) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 5 (Continued)
Summary of Psychiatric-Related Emergency Department Visit Disposition

| Psychiatric-Related ED Visits Disposition | Pre-ACA | Post-ACA | | |
|---|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=4,253,110 | 2014 N=5,832,444 | 2015 N=5,857,686 | 2016 N=5,986,274 |
| | n (%) | n (%) | n (%) | n (%) |
| Treated and Released | 3,120,641 (73.4) | 4,529,512 (77.7) | 4,248,209 (72.5) | 4,725,090 (78.9) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,290,870 (22.1) | 1,203,119 (20.5) | 1,248,895 (20.9) |
| Other | 11,878 (0.3) | 12,062 (0.2) | 406,358 (6.9) | 12,289 (0.2) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 6
Summary of Psychiatric-Related Emergency Department Visit Disposition by Age

| Number of Psychiatric-Related ED Visits Disposition/Age | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2011 N=4,717,856 | 2012 N=5,267,941 | 2013 N=5,261,875 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 3,570,582 (75.7) | 4,040,346 (76.7) | 4,077,050 (77.5) |
| 18 ≤ age ≤ 25 | 647,925 (15.2) | 720,246 (15.3) | 790,934 (15.0) | 770,081 (14.6) |
| 26 ≤ age ≤ 49 | 1,819,787 (42.8) | 2,038,355 (43.2) | 2,289,659 (43.5) | 2,300,526 (43.7) |
| 50 ≤ age ≤ 64 | 652,929 (15.4) | 811,981 (17.2) | 959,753 (18.2) | 1,006,443 (19.1) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,134,480 (24.0) | 1,217,517 (23.1) | 1,173,982 (22.3) |
| 18 ≤ age ≤ 25 | 100,155 (2.4) | 100,871 (2.1) | 106,592 (2.0) | 102,563 (1.9) |
| 26 ≤ age ≤ 49 | 536,677 (12.6) | 515,028 (10.9) | 544,773 (10.3) | 514,489 (9.8) |
| 50 ≤ age ≤ 64 | 483,759 (11.4) | 518,581 (11.0) | 566,152 (10.7) | 556,930 (10.6) |
| Other | 11,878 (0.3) | 12,794 (0.3) | 10,078 (0.2) | 10,843 (0.2) |
| 18 ≤ age ≤ 25 | 1,775 (0.04) | 1,964 (0.04) | 1,524 (0.03) | 1,562 (0.03) |
| 26 ≤ age ≤ 49 | 6,735 (0.2) | 6,620 (0.1) | 5,173 (0.1) | 5,444 (0.1) |
| 50 ≤ age ≤ 64 | 3,368 (0.1) | 4,210 (0.1) | 3,381 (0.1) | 3,837 (0.1) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 6 (Continued)
Summary of Psychiatric-Related Emergency Department Visit Disposition by Age

| Number of Psychiatric-Related ED Visits Disposition/Age | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2014 N=5,832,444 | 2015 N=5,857,686 | 2016 N=5,986,274 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 4,529,512 (77.7) | 4,248,209 (72.5) | 4,725,090 (78.9) |
| 18 ≤ age ≤ 25 | 647,925 (15.2) | 832,045 (14.3) | 756,474 (12.9) | 805,708 (13.5) |
| 26 ≤ age ≤ 49 | 1,819,787 (42.8) | 2,546,771 (43.7) | 2,384,777 (40.7) | 2,673,535 (44.7) |
| 50 ≤ age ≤ 64 | 652,929 (15.4) | 1,150,696 (19.7) | 1,106,958 (18.9) | 1,245,847 (20.8) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,290,870 (22.1) | 1,203,119 (20.5) | 1,248,895 (20.9) |
| 18 ≤ age ≤ 25 | 100,155 (2.4) | 112,034 (1.9) | 98,264 (1.7) | 103,733 (1.7) |
| 26 ≤ age ≤ 49 | 536,677 (12.6) | 554,711 (9.5) | 510,675 (8.7) | 531,499 (8.9) |
| 50 ≤ age ≤ 64 | 483,759 (11.4) | 624,125 (10.7) | 594,180 (10.1) | 613,663 (10.3) |
| Other | 11,878 (0.3) | 12,062 (0.2) | 406,358 (6.9) | 12,289 (0.2) |
| 18 ≤ age ≤ 25 | 1,775 (0.04) | 1,686 (0.03) | 65,764 (1.1) | 1,355 (0.02) |
| 26 ≤ age ≤ 49 | 6,735 (0.2) | 6,432 (0.1) | 239,777 (4.1) | 6,129 (0.1) |
| 50 ≤ age ≤ 64 | 3,368 (0.1) | 3,944 (0.1) | 100,817 (1.7) | 4,805 (0.1) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 7
Summary of Psychiatric-Related Emergency Department Visit Disposition by Sex

| ED Disposition/Sex | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2011 N=4,717,856 | 2012 N=5,267,941 | 2013 N=5,261,875 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 3,570,582 (75.7) | 4,040,346 (76.7) | 4,077,050 (77.5) |
| Male, | 1,453,275 (34.2) | 1,666,246 (35.3) | 1,891,558 (35.9) | 1,927,126 (36.6) |
| Female | 1,665,061 (39.1) | 1,903,275 (40.3) | 2,148,601 (40.8) | 2,149,765 (40.9) |
| Missing | 2,305 (0.1) | 1,061 (0.02) | 187 (<0.01) | 159 (<0.01) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,134,480 (24.0) | 1,217,517 (23.1) | 1,173,982 (22.3) |
| Male | 588,467 (13.8) | 594,089 (12.6) | 639,650 (12.1) | 620,074 (11.8) |
| Female | 532,070 (12.5) | 540,373 (11.5) | 577,844 (11.0) | 553,875 (10.5) |
| Missing | 54 (<0.01) | 18 (<0.01) | 23 (<0.01) | 33 (<0.01) |
| Other | 11,878 (0.3) | 12,794 (0.3) | 10,078 (0.2) | 10,843 (0.2) |
| Male | 7,173 (0.2) | 7,075 (0.1) | 5,494 (0.1) | 6,382 (0.1) |
| Female | 4,702 (0.1) | 5,714 (0.1) | 4,584 (0.1) | 4,460 (0.1) |
| Missing | 3 (<0.01) | 5 (<0.01) | 0 | 1 (<0.01) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 7 (Continued)
Summary of Psychiatric-Related Emergency Department Visit Disposition by Sex

| ED Disposition/Sex | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2014 N=5,832,444 | 2015 N=5,857,686 | 2016 N=5,986,274 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 4,529,512 (77.7) | 4,248,209 (72.5) | 4,725,090 (78.9) |
| Male, | 1,453,275 (34.2) | 2,163,413 (37.1) | 2,049,294 (35.0) | 2,265,127 (37.8) |
| Female | 1,665,061 (39.1) | 2,365,947 (40.6) | 2,198,276 (37.5) | 2,459,367 (41.1) |
| Missing | 2,305 (0.1) | 152 (<0.01) | 639 (0.01) | 596 (0.01) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,290,870 (22.1) | 1,203,119 (20.5) | 1,248,895 (20.9) |
| Male | 588,467 (13.8) | 687,737 (11.8) | 642,354 (11.0) | 666,674 (11.1) |
| Female | 532,070 (12.5) | 603,097 (10.3) | 560,586 (9.6) | 581,635 (9.7) |
| Missing | 54 (<0.01) | 36 (<0.01) | 179 (<0.01) | 586 (0.01) |
| Other | 11,878 (0.3) | 12,062 (0.2) | 406,358 (6.9) | 12,289 (0.2) |
| Male | 7,173 (0.2) | 7,458 (0.1) | 192,910 (3.3) | 7,217 (0.1) |
| Female | 4,702 (0.1) | 4,603 (0.1) | 213,423 (3.6) | 5,070 (0.1) |
| Missing | 3 (<0.01) | 1 (<0.01) | 25 (<0.01) | 2 (<0.01) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 8
Summary of Psychiatric-Related Emergency Department Visit Disposition by Payer

| ED Disposition/ Payer | Pre-ACA | | Post-ACA | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2011 N=4,717,856 | 2012 N=5,267,941 | 2013 N=5,261,875 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 3,570,582 (75.7) | 4,040,346 (76.7) | 4,077,050 (77.5) |
| Medicare | 351,324 (8.3) | 432,162 (9.2) | 512,171 (9.7) | 518,063 (9.8) |
| Medicaid | 783,742 (18.4) | 995,946 (21.1) | 1,126,702 (21.4) | 1,122,671 (21.3) |
| Private | 825,506 (19.4) | 871,169 (18.5) | 936,465 (17.8) | 937,727 (17.8) |
| Uninsured | 1,144,261 (26.9) | 1,254,633 (26.6) | 1,458,301 (27.7) | 1,490,029 (28.3) |
| Missing | 15,808 (0.4) | 16,672 (0.4) | 6,707 (0.1) | 8,560 (0.2) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,134,480 (24.0) | 1,217,517 (23.1) | 1,173,982 (22.3) |
| Medicare | 241,779 (5.7) | 262,678 (5.6) | 284,643 (5.4) | 278,930 (5.3) |
| Medicaid | 293,575 (6.9) | 311,178 (6.6) | 337,994 (6.4) | 320,683 (6.1) |
| Private | 333,773 (7.8) | 312,722 (6.6) | 310,319 (5.9) | 300,202 (5.7) |
| Uninsured | 249,015 (5.9) | 246,136 (5.2) | 282,822 (5.4) | 272,168 (5.2) |
| Missing | 2,449 (0.1) | 1,766 (0.04) | 1,739 (0.03) | 1,999 (0.04) |
| Other | 11,878 (0.3) | 12,794 (0.3) | 10,078 (0.2) | 10,843 (0.2) |
| Medicare | 1,785 (0.04) | 1,960 (0.04) | 1,435 (0.03) | 1,605 (0.03) |
| Medicaid | 3,226 (0.1) | 3,154 (0.07) | 2,249 (0.04) | 2,491 (0.05) |
| Private | 2,425 (0.1) | 4,445 (0.09) | 3,436 (0.1) | 2,768 (0.05) |
| Uninsured | 4,267 (0.1) | 2,961 (0.06) | 2,446 (0.05) | 3,283 (0.1) |
| Missing | 175 (<0.01) | 274 (0.01) | 512 (0.01) | 696 (0.01) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 8 (Continued)
Summary of Psychiatric-Related Emergency Department Visit Disposition by Payer

| ED Disposition/ Payer | Pre-ACA | | Post-ACA | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2014 N=5,832,444 | 2015 N=5,857,686 | 2016 N=5,986,274 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 4,529,512 (77.7) | 4,248,209 (72.5) | 4,725,090 (78.9) |
| Medicare | 351,324 (8.3) | 579,706 (9.9) | 544,704 (9.3) | 598,452 (10.0) |
| Medicaid | 783,742 (18.4) | 1,550,734 (26.6) | 1,601,960 (27.3) | 1,732,707 (28.9) |
| Private | 825,506 (19.4) | 1,083,661 (18.6) | 1,066,226 (18.2) | 1,212,889 (20.3) |
| Uninsured | 1,144,261 (26.9) | 1,306,336 (22.4) | 1,030,704 (17.6) | 1,174,400 (19.6) |
| Missing | 15,808 (0.4) | 9,075 (0.2) | 4,615 (0.1) | 6,642 (0.1) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,290,870 (22.1) | 1,203,119 (20.5) | 1,248,895 (20.9) |
| Medicare | 241,779 (5.7) | 311,959 (5.3) | 288,479 (4.9) | 299,567 (5.0) |
| Medicaid | 293,575 (6.9) | 446,848 (7.7) | 414,834 (7.1) | 426,046 (7.1) |
| Private | 333,773 (7.8) | 321,427 (5.5) | 321,219 (5.5) | 335,750 (5.6) |
| Uninsured | 249,015 (5.9) | 209,171 (3.6) | 177,476 (3.0) | 186,315 (3.1) |
| Missing | 2,449 (0.1) | 1,465 (0.03) | 1,111 (0.02) | 1,217 (0.02) |
| Other | 11,878 (0.3) | 12,062 (0.2) | 406,358 (6.9) | 12,289 (0.2) |
| Medicare | 1,785 (0.04) | 1,747 (0.03) | 47,264 (0.8) | 2,198 (0.04) |
| Medicaid | 3,226 (0.1) | 3,815 (0.1) | 59,250 (1.0) | 5,001 (0.1) |
| Private | 2,425 (0.1) | 2,158 (0.04) | 121,320 (2.1) | 2,810 (0.05) |
| Uninsured | 4,267 (0.1) | 3,793 (0.1) | 175,243 (3.0) | 1,833 (0.03) |
| Missing | 175 (<0.01) | 549 (0.01) | 3,281 (0.1) | 447 (0.01) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 9
Psychiatric-Related Emergency Department Visit Disposition by Hospital Region

| ED Disposition/ Hospital Region | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2011 N=4,717,856 | 2012 N=5,267,941 | 2013 N=5,261,875 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 3,570,582 (75.7) | 4,040,346 (76.7) | 4,077,050 (77.5) |
| Urban | 2,952,057 (69.4) | 3,396,252 (72.0) | 3,852,943 (73.1) | 3,864,871 (73.5) |
| Rural | 168,584 (4.0) | 174,330 (3.7) | 187,403 (3.6) | 212,179 (4.0) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,134,480 (24.0) | 1,217,517 (23.1) | 1,173,982 (22.3) |
| Urban | 1,077,638 (25.3) | 1,096,376 (23.2) | 1,182,808 (22.4) | 1,136,435 (21.6) |
| Rural | 42,953 (1.0) | 38,104 (0.8) | 34,709 (0.7) | 37,547 (0.7) |
| Other | 11,878 (0.3) | 12,794 (0.3) | 10,078 (0.2) | 10,843 (0.2) |
| Urban | 11,587 (0.3) | 10,749 (0.2) | 8,180 (0.2) | 9,229 (0.2) |
| Rural | 291 (0.01) | 2,045 (0.04) | 1,898 (0.04) | 1,614 (0.03) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 9 (Continued)
Psychiatric-Related Emergency Department Visit Disposition by Hospital Region

| ED Disposition/ Hospital Region | Pre-ACA | Post-ACA | | |
|---|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=4,253,110 | 2014 N=5,832,444 | 2015 N=5,857,686 | 2016 N=5,986,274 |
| | n (%) | n (%) | n (%) | n (%) |
| Treat-and-Release | 3,120,641 (73.4) | 4,529,512 (77.7) | 4,248,209 (72.5) | 4,725,090 (78.9) |
| Urban | 2,952,057 (69.4) | 4,303,446 (73.8) | 4,075,031 (69.6) | 4,420,683 (73.8) |
| Rural | 168,584 (4.0) | 226,066 (3.9) | 173,178 (3.0) | 304,407 (5.1) |
| Admitted/Transferred to Hospital | 1,120,591 (26.3) | 1,290,870 (22.1) | 1,203,119 (20.5) | 1,248,895 (20.9) |
| Urban | 1,077,638 (25.3) | 1,247,642 (21.4) | 1,174,909 (20.1) | 1,194,690 (20.0) |
| Rural | 42,953 (1.0) | 43,228 (0.7) | 28,210 (0.5) | 54,205 (0.9) |
| Other | 11,878 (0.3) | 12,062 (0.2) | 406,358 (6.9) | 12,289 (0.2) |
| Urban | 11,587 (0.3) | 11,319 (0.2) | 389,682 (6.7) | 11,302 (0.2) |
| Rural | 291 (0.01) | 743 (0.01) | 16,676 (0.3) | 987 (0.02) |

Note: ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 10
Summary of Psychiatric-Related Emergency Department Visit with Treat-and-Release
Disposition By Patient Characteristics

| Number of Psychiatric-Related ED Visits with Treat-and-Release Disposition by | | Pre-ACA | | Post-ACA | |
|---|---------------|----------------------|----------------------|----------------------|----------------------|
| | | 2009 | 2011 | 2012 | 2013 |
| | | N=3,120,641 n (%) | N=3,570,582 n (%) | N=4,040,346 n (%) | N=4,077,050 n (%) |
| Age | 18 ≤ age ≤ 25 | 647,925 (20.8) | 720,246 (20.2) | 790,934 (19.6) | 770,081 (18.9) |
| | 26 ≤ age ≤ 49 | 1,819,787 (58.3) | 2,038,355 (57.1) | 2,289,659 (56.7) | 2,300,526 (56.4) |
| | 50 ≤ age ≤ 64 | 652,929 (20.9) | 811,981 (22.7) | 959,753 (23.8) | 1,006,443 (24.7) |
| Sex | Male | 1,453,275 (46.6) | 1,666,246 (46.7) | 1,891,558 (46.8) | 1,927,126 (47.3) |
| | Female | 1,665,061 (53.4) | 1,903,275 (53.3) | 2,148,601 (53.2) | 2,149,765 (52.7) |
| | Missing | 2,305 (0.1) | 1,061 (0.03) | 187 (0.01) | 159 (<0.01) |
| Payer | Medicare | 351,324 (11.3) | 432,162 (12.1) | 512,171 (12.7) | 518,063 (12.7) |
| | Medicaid | 783,742 (25.1) | 995,946 (27.9) | 1,126,702 (27.9) | 1,122,671 (27.5) |
| | Private | 825,506 (26.5) | 871,169 (24.4) | 936,465 (23.2) | 937,727 (23.0) |
| | Uninsured | 1,144,261 (36.7) | 1,254,633 (35.1) | 1,458,301 (36.1) | 1,490,029 (36.5) |
| | Missing | 15,808 (0.5) | 16,672 (0.5) | 6,707 (0.2) | 8,560 (0.2) |
| Region | Urban | 2,952,057 (94.6) | 3,396,252 (95.1) | 3,852,943 (95.4) | 3,864,871 (94.8) |
| | Rural | 168,584 (5.4) | 174,330 (4.9) | 187,403 (4.6) | 212,179 (5.2) |

Note: The total number of psychiatric-related ED visits are all ED visits with disposition of Treat-and-Release. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 10 (Continued)
Summary of Psychiatric-Related Emergency Department Visit with Treat-and-Release
Disposition By Patient Characteristics

| Number of Psychiatric-Related ED Visits with Treat-and-Release Disposition by | | Pre-ACA | | Post-ACA | |
|---|---------------|----------------------|----------------------|----------------------|----------------------|
| | | 2009 | 2014 | 2015 | 2016 |
| | | N=3,120,641 n (%) | N=4,529,512 n (%) | N=4,248,209 n (%) | N=4,725,090 n (%) |
| Age | 18 ≤ age ≤ 25 | 647,925 (20.8) | 832,045 (18.4) | 756,474 (17.8) | 805,708 (17.1) |
| | 26 ≤ age ≤ 49 | 1,819,787 (58.3) | 2,546,771 (56.2) | 2,384,777 (56.1) | 2,673,535 (56.6) |
| | 50 ≤ age ≤ 64 | 652,929 (20.9) | 1,150,696 (25.4) | 1,106,958 (26.1) | 1,245,847 (26.4) |
| Sex | Male | 1,453,275 (46.6) | 2,163,413 (47.8) | 2,049,294 (48.2) | 2,265,127 (47.9) |
| | Female | 1,665,061 (53.4) | 2,365,947 (52.2) | 2,198,276 (51.7) | 2,459,367 (52.0) |
| | Missing | 2,305 (0.1) | 152 (<0.01) | 639 (0.02) | 596 (0.01) |
| Payer | Medicare | 351,324 (11.3) | 579,706 (12.8) | 544,704 (12.8) | 598,452 (12.7) |
| | Medicaid | 783,742 (25.1) | 1,550,734 (34.2) | 1,601,960 (37.7) | 1,732,707 (36.7) |
| | Private | 825,506 (26.5) | 1,083,661 (23.9) | 1,066,226 (25.1) | 1,212,889 (25.7) |
| | Uninsured | 1,144,261 (36.7) | 1,306,336 (28.8) | 1,030,704 (24.3) | 1,174,400 (24.9) |
| | Missing | 15,808 (0.5) | 9,075 (0.2) | 4,615 (0.1) | 6,642 (0.1) |
| Region | Urban | 2,952,057 (94.6) | 4,303,446 (95.0) | 4,075,031 (95.9) | 4,420,683 (93.6) |
| | Rural | 168,584 (5.4) | 226,066 (5.0) | 173,178 (4.1) | 304,407 (6.4) |

Note: The total number of psychiatric-related ED visits are all ED visits with disposition of Treat-and-Release. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total visits, N.

Table 11
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2011 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2011) | Pre-ACA (2009) |
|-------------------------------|----------------------|----------------------|
| | N = 17,845,772 | N = 17,645,539 |
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 4,717,856 (26.4) | 4,253,110 (24.1) |
| No | 13,127,916 (73.6) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.132 (1.130, 1.133) | <0.0001 |
| Model 2 | | |
| ACA | 1.127 (1.125, 1.129) | <0.0001 |
| Age | 0.816 (0.815, 0.817) | <0.0001 |
| Model 3 | | |
| ACA | 1.132 (1.130, 1.134) | <0.0001 |
| Sex | 1.338 (1.336, 1.340) | <0.0001 |
| Model 4 | | |
| ACA | 1.121 (1.120, 1.123) | <0.0001 |
| Payer | 1.168 (1.167, 1.169) | <0.0001 |
| Model 5 | | |
| ACA | 1.131 (1.129, 1.133) | < 0.0001 |
| Region | 1.479 (1.474, 1.484) | < 0.0001 |
| Model 6 | | |
| ACA | 1.117 (1.116, 1.119) | < 0.0001 |
| Age | 0.853 (0.852, 0.854) | < 0.0001 |
| Sex | 1.365 (1.363, 1.368) | < 0.0001 |
| Payer | 1.171 (1.170, 1.172) | < 0.0001 |
| Region | 1.509 (1.503, 1.514) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 12
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2012 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2012) | Pre-ACA (2009) |
|-------------------------------|----------------------|----------------------|
| | N = 19,325,068 | N = 17,645,539 |
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,267,941 (27.3) | 4,253,110 (24.1) |
| No | 14,057,127 (72.7) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.180 (1.178, 1.182) | <0.0001 |
| Model 2 | | |
| ACA | 1.173 (1.172, 1.175) | <0.0001 |
| Age | 0.811 (0.810, 0.812) | <0.0001 |
| Model 3 | | |
| ACA | 1.181 (1.179, 1.183) | <0.0001 |
| Sex | 1.350 (1.348, 1.352) | <0.0001 |
| Model 4 | | |
| ACA | 1.170 (1.168, 1.171) | <0.0001 |
| Payer | 1.165 (1.164, 1.166) | <0.0001 |
| Model 5 | | |
| ACA | 1.177 (1.175, 1.178) | < 0.0001 |
| Region | 1.425 (1.420, 1.430) | < 0.0001 |
| Model 6 | | |
| ACA | 1.162 (1.160, 1.164) | < 0.0001 |
| Age | 0.849 (0.848, 0.850) | < 0.0001 |
| Sex | 1.377 (1.375, 1.379) | < 0.0001 |
| Payer | 1.167 (1.166, 1.168) | < 0.0001 |
| Region | 1.451 (1.446, 1.456) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 13
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2013 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2013) N = 18,412,805 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,261,875 (28.6) | 4,253,110 (24.1) |
| No | 13,150,930 (71.4) | 13,392,429 (75.9) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.260 (1.258, 1.262) | <0.0001 |
| Model 2 | | |
| ACA | 1.250 (1.248, 1.252) | <0.0001 |
| Age | 0.809 (0.808, 0.809) | <0.0001 |
| Model 3 | | |
| ACA | 1.261 (1.259, 1.263) | <0.0001 |
| Sex | 1.365 (1.363, 1.367) | <0.0001 |
| Model 4 | | |
| ACA | 1.248 (1.246, 1.250) | <0.0001 |
| Payer | 1.150 (1.149, 1.151) | <0.0001 |
| Model 5 | | |
| ACA | 1.258 (1.256, 1.260) | < 0.0001 |
| Region | 1.368 (1.363, 1.372) | < 0.0001 |
| Model 6 | | |
| ACA | 1.239 (1.237, 1.241) | < 0.0001 |
| Age | 0.845 (0.844, 0.846) | < 0.0001 |
| Sex | 1.386 (1.384, 1.388) | < 0.0001 |
| Payer | 1.152 (1.151, 1.153) | < 0.0001 |
| Region | 1.390 (1.386, 1.395) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 14
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2014 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2014) N = 19,498,007 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,832,444 (29.9) | 4,253,110 (24.1) |
| No | 13,665,563 (70.1) | 13,392,429 (75.9) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.344 (1.342, 1.346) | <0.0001 |
| Model 2 | | |
| ACA | 1.330 (1.328, 1.332) | <0.0001 |
| Age | 0.808 (0.807, 0.809) | <0.0001 |
| Model 3 | | |
| ACA | 1.346 (1.344, 1.348) | <0.0001 |
| Sex | 1.390 (1.388, 1.392) | <0.0001 |
| Model 4 | | |
| ACA | 1.304 (1.302, 1.306) | <0.0001 |
| Payer | 1.181 (1.180, 1.182) | <0.0001 |
| Model 5 | | |
| ACA | 1.340 (1.339, 1.342) | < 0.0001 |
| Region | 1.329 (1.325, 1.334) | < 0.0001 |
| Model 6 | | |
| ACA | 1.291 (1.289, 1.293) | < 0.0001 |
| Age | 0.849 (0.849, 0.850) | < 0.0001 |
| Sex | 1.416 (1.413, 1.418) | < 0.0001 |
| Payer | 1.183 (1.182, 1.184) | < 0.0001 |
| Region | 1.351 (1.347, 1.356) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 15
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2015 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2015) N = 18,738,803 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,857,686 (31.3) | 4,253,110 (24.1) |
| No | 12,881,117 (68.7) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.432 (1.430, 1.434) | <0.0001 |
| Model 2 | | |
| ACA | 1.414 (1.412, 1.416) | <0.0001 |
| Age | 0.812 (0.812, 0.813) | <0.0001 |
| Model 3 | | |
| ACA | 1.433 (1.431, 1.435) | <0.0001 |
| Sex | 1.393 (1.391, 1.395) | <0.0001 |
| Model 4 | | |
| ACA | 1.381 (1.379, 1.383) | <0.0001 |
| Payer | 1.189 (1.188, 1.189) | <0.0001 |
| Model 5 | | |
| ACA | 1.424 (1.422, 1.426) | < 0.0001 |
| Region | 1.388 (1.383, 1.393) | < 0.0001 |
| Model 6 | | |
| ACA | 1.361 (1.359, 1.363) | < 0.0001 |
| Age | 0.854 (0.853, 0.855) | < 0.0001 |
| Sex | 1.419 (1.417, 1.421) | < 0.0001 |
| Payer | 1.191 (1.190, 1.192) | < 0.0001 |
| Region | 1.417 (1.412, 1.422) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 16
Analysis of Proportion of Psychiatric-Related Emergency Department Visits
2016 vs 2009

| Psychiatric-Related ED Visits | Post-ACA (2016) N = 20,073,238 | Pre-ACA (2009) N = 17,645,539 |
|-------------------------------|-----------------------------------|----------------------------------|
| | n (%) | n (%) |
| Psychiatric-Related ED Visits | | |
| Yes | 5,986,274 (29.8) | 4,253,110 (24.1) |
| No | 14,086,964 (70.2) | 13,392,429 (75.9) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.338 (1.336, 1.340) | <0.0001 |
| Model 2 | | |
| ACA | 1.320 (1.318, 1.322) | <0.0001 |
| Age | 0.808 (0.807, 0.809) | <0.0001 |
| Model 3 | | |
| ACA | 1.340 (1.338, 1.342) | <0.0001 |
| Sex | 1.396 (1.394, 1.398) | <0.0001 |
| Model 4 | | |
| ACA | 1.287 (1.285, 1.289) | <0.0001 |
| Payer | 1.200 (1.199, 1.201) | <0.0001 |
| Model 5 | | |
| ACA | 1.338 (1.336, 1.340) | < 0.0001 |
| Region | 1.212 (1.208, 1.215) | < 0.0001 |
| Model 6 | | |
| ACA | 1.275 (1.273, 1.276) | < 0.0001 |
| Age | 0.852 (0.851, 0.853) | < 0.0001 |
| Sex | 1.421 (1.419, 1.424) | < 0.0001 |
| Payer | 1.201 (1.200, 1.202) | < 0.0001 |
| Region | 1.231 (1.227, 1.235) | < 0.0001 |

¹ Model 1: Psychiatric-Related ED Visits = ACA; Model 2: Psychiatric-Related ED Visits = ACA Age;

Model 3: Psychiatric-Related ED Visits = ACA Sex; Model 4: Psychiatric-Related ED Visits = ACA Payer;

Model 5: Psychiatric-Related ED Visits = ACA Region; Model 6: Psychiatric-Related ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 17
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2011 vs 2009

| Patient Characteristics | | Post-ACA (2011) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 4,717,856 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 823,081 (17.4) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 2,560,003 (54.3) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,334,772 (28.3) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,267,410 (48.1) | 2,048,915 (48.2) | <0.0001 |
| | Female | 2,449,362 (51.9) | 2,201,833 (51.8) | <0.0001 |
| Payer | Medicare | 696,800 (14.8) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 1,310,278 (27.9) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,188,336 (25.3) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,503,730 (32.0) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 4,503,377 (95.4) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 214,479 (4.6) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 18
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2012 vs 2009

| Patient Characteristics | | Post-ACA (2012) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 5,267,941 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 899,050 (17.1) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 2,839,605 (53.9) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,529,286 (29.0) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,536,702 (48.2) | 2,048,915 (48.2) | 0.1599 |
| | Female | 2,731,029 (51.8) | 2,201,833 (51.8) | 0.1599 |
| Payer | Medicare | 798,249 (15.2) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 1,466,945 (27.9) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,250,220 (23.8) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,743,569 (33.1) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 5,043,931 (95.7) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 224,010 (4.3) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 19
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2013 vs 2009

| Patient Characteristics | | Post-ACA (2013) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 5,261,875 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 874,206 (16.6) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 2,820,459 (53.6) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,567,210 (29.8) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,553,582 (48.5) | 2,048,915 (48.2) | <0.0001 |
| | Female | 2,708,100 (51.5) | 2,201,833 (51.8) | <0.0001 |
| Payer | Medicare | 798,598 (15.2) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 1,445,845 (27.5) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,240,697 (23.6) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,765,480 (33.6) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 5,010,535 (95.2) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 251,340 (4.8) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 20
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2014 vs 2009

| Patient Characteristics | | Post-ACA (2014) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 5,832,444 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 945,765 (16.2) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 3,107,914 (53.3) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,778,765 (30.5) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,858,608 (49.0) | 2,048,915 (48.2) | <0.0001 |
| | Female | 2,973,647 (51.0) | 2,201,833 (51.8) | <0.0001 |
| Payer | Medicare | 893,412 (15.3) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 2,001,397 (34.4) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,407,246 (24.2) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,519,300 (26.1) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 5,562,407 (95.4) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 270,037 (4.6) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 21
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2015 vs 2009

| Patient Characteristics | | Post-ACA (2015) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 5,857,686 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 920,502 (15.7) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 3,135,229 (53.5) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,801,955 (30.8) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,884,558 (49.2) | 2,048,915 (48.2) | <0.0001 |
| | Female | 2,972,285 (50.8) | 2,201,833 (51.8) | <0.0001 |
| Payer | Medicare | 880,447 (15.0) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 2,076,044 (35.5) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,508,765 (25.8) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,383,423 (23.6) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 5,639,622 (96.3) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 218,064 (3.7) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 22
Analysis of Patient Characteristics for Psychiatric-Related ED Visits
2016 vs 2009

| Patient Characteristics | | Post-ACA (2016) | Pre-ACA (2009) | P-value ¹ |
|-------------------------|---------------|------------------------|------------------------|----------------------|
| | | N = 5,986,274 n (%) | N = 4,253,110 n (%) | |
| Age | 18 ≤ age ≤ 25 | 910,796 (15.2) | 749,855 (17.6) | <0.0001 |
| | 26 ≤ age ≤ 49 | 3,211,163 (53.6) | 2,363,199 (55.6) | <0.0001 |
| | 50 ≤ age ≤ 64 | 1,864,315 (31.1) | 1,140,056 (26.8) | <0.0001 |
| Sex | Male | 2,939,018 (49.1) | 2,048,915 (48.2) | <0.0001 |
| | Female | 3,046,072 (50.9) | 2,201,833 (51.8) | <0.0001 |
| Payer | Medicare | 900,217 (15.1) | 594,888 (14.0) | <0.0001 |
| | Medicaid | 2,163,754 (36.2) | 1,080,543 (25.5) | <0.0001 |
| | Private | 1,551,449 (25.9) | 1,161,704 (27.4) | <0.0001 |
| | Uninsured | 1,362,548 (22.8) | 1,397,543 (33.0) | <0.0001 |
| Region | Urban | 5,626,675 (94.0) | 4,041,282 (95.0) | <0.0001 |
| | Rural | 359,599 (6.0) | 211,828 (5.0) | <0.0001 |

¹P-value using Chi-Square test

Table 23
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2011 vs 2009

| Psychiatric-Related ED Visits with Treat-and-Release Disposition | Post-ACA (2011) | Pre-ACA (2009) |
|---|----------------------|----------------------|
| | N = 4,717,856 | N = 4,253,110 |
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 3,570,582 (75.7) | 3,120,641 (73.4) |
| No | 1,147,274 (24.3) | 1,132,469 (26.6) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.129 (1.126, 1.133) | <0.0001 |
| Model 2 | | |
| ACA | 1.154 (1.151, 1.158) | <0.0001 |
| Age | 2.267 (2.261, 2.273) | <0.0001 |
| Model 3 | | |
| ACA | 1.130 (1.126, 1.133) | <0.0001 |
| Sex | 0.791 (0.789, 0.793) | <0.0001 |
| Model 4 | | |
| ACA | 1.151 (1.147, 1.154) | <0.0001 |
| Payer | 0.729 (0.728, 0.730) | <0.0001 |
| Model 5 | | |
| ACA | 1.131 (1.128, 1.135) | < 0.0001 |
| Region | 0.701 (0.695, 0.706) | < 0.0001 |
| Model 6 | | |
| ACA | 1.172 (1.168, 1.176) | < 0.0001 |
| Age | 2.100 (2.095, 2.105) | < 0.0001 |
| Sex | 0.767 (0.764, 0.769) | < 0.0001 |
| Payer | 0.778 (0.777, 0.779) | < 0.0001 |
| Region | 0.666 (0.661, 0.672) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 24
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2012 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2012) | Pre-ACA (2009) |
|---|----------------------|----------------------|
| | N = 5,267,941 | N = 4,253,110 |
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,040,346 (76.7) | 3,120,641 (73.4) |
| No | 1,227,595 (23.3) | 1,132,469 (26.6) |
| Model ¹ | Odds Ratio (95% CI) | P-Value ² |
| Model 1 | | |
| ACA | 1.194 (1.191, 1.198) | <0.0001 |
| Model 2 | | |
| ACA | 1.235 (1.232, 1.239) | <0.0001 |
| Age | 2.247 (2.241, 2.252) | <0.0001 |
| Model 3 | | |
| ACA | 1.196 (1.192, 1.199) | <0.0001 |
| Sex | 0.791 (0.789, 0.793) | <0.0001 |
| Model 4 | | |
| ACA | 1.221 (1.217, 1.224) | <0.0001 |
| Payer | 0.735 (0.734, 0.736) | <0.0001 |
| Model 5 | | |
| ACA | 1.198 (1.194, 1.201) | < 0.0001 |
| Region | 0.664 (0.659, 0.670) | < 0.0001 |
| Model 6 | | |
| ACA | 1.259 (1.255, 1.263) | < 0.0001 |
| Age | 2.083 (2.078, 2.088) | < 0.0001 |
| Sex | 0.768 (0.766, 0.771) | < 0.0001 |
| Payer | 0.785 (0.784, 0.787) | < 0.0001 |
| Region | 0.634 (0.629, 0.640) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 25
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2013 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2013) N = 5,261,875 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,077,050 (77.5) | 3,120,641 (73.4) |
| No | 1,184,825 (22.5) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.249 (1.245, 1.252) | <0.0001 |
| Model 2 | | |
| ACA | 1.306 (1.302, 1.310) | <0.0001 |
| Age | 2.229 (2.223, 2.234) | <0.0001 |
| Model 3 | | |
| ACA | 1.251 (1.248, 1.255) | <0.0001 |
| Sex | 0.793 (0.791, 0.795) | <0.0001 |
| Model 4 | | |
| ACA | 1.275 (1.271, 1.279) | <0.0001 |
| Payer | 0.732 (0.731, 0.733) | <0.0001 |
| Model 5 | | |
| ACA | 1.250 (1.246, 1.254) | < 0.0001 |
| Region | 0.658 (0.653, 0.663) | < 0.0001 |
| Model 6 | | |
| ACA | 1.328 (1.324, 1.333) | < 0.0001 |
| Age | 2.059 (2.054, 2.064) | < 0.0001 |
| Sex | 0.771 (0.768, 0.773) | < 0.0001 |
| Payer | 0.783 (0.782, 0.785) | < 0.0001 |
| Region | 0.629 (0.624, 0.634) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 26
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2014 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2014) N = 5,832,444 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,529,512 (77.7) | 3,120,641 (73.4) |
| No | 1,302,932 (22.3) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.262 (1.258, 1.265) | <0.0001 |
| Model 2 | | |
| ACA | 1.332 (1.328, 1.336) | <0.0001 |
| Age | 2.219 (2.213, 2.224) | <0.0001 |
| Model 3 | | |
| ACA | 1.266 (1.262, 1.269) | <0.0001 |
| Sex | 0.794 (0.791, 0.796) | <0.0001 |
| Model 4 | | |
| ACA | 1.350 (1.346, 1.354) | <0.0001 |
| Payer | 0.718 (0.717, 0.719) | <0.0001 |
| Model 5 | | |
| ACA | 1.263 (1.260, 1.267) | < 0.0001 |
| Region | 0.680 (0.674, 0.685) | < 0.0001 |
| Model 6 | | |
| ACA | 1.407 (1.403, 1.411) | < 0.0001 |
| Age | 2.045 (2.040, 2.050) | < 0.0001 |
| Sex | 0.772 (0.769, 0.774) | < 0.0001 |
| Payer | 0.769 (0.768, 0.770) | < 0.0001 |
| Region | 0.656 (0.651, 0.661) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 27
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2015 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2015) N = 5,857,686 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,248,209 (72.5) | 3,120,641 (73.4) |
| No | 1,609,477 (27.5) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 0.958 (0.955, 0.961) | <0.0001 |
| Model 2 | | |
| ACA | 0.996 (0.993, 0.999) | 0.0091 |
| Age | 1.975 (1.971, 1.980) | <0.0001 |
| Model 3 | | |
| ACA | 0.960 (0.958, 0.963) | <0.0001 |
| Sex | 0.831 (0.829, 0.833) | <0.0001 |
| Model 4 | | |
| ACA | 1.003 (1.000, 1.006) | 0.0545 |
| Payer | 0.820 (0.819, 0.821) | <0.0001 |
| Model 5 | | |
| ACA | 0.962 (0.959, 0.965) | < 0.0001 |
| Region | 0.685 (0.680, 0.690) | < 0.0001 |
| Model 6 | | |
| ACA | 1.034 (1.031, 1.037) | < 0.0001 |
| Age | 1.895 (1.890, 1.899) | < 0.0001 |
| Sex | 0.827 (0.824, 0.829) | < 0.0001 |
| Payer | 0.876 (0.875, 0.877) | < 0.0001 |
| Region | 0.671 (0.665, 0.676) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 28
Analysis of Proportion of Psychiatric-Related Emergency Department Disposition
of Treat-and-Release, 2016 vs 2009

| Psychiatric-Related ED Visits Disposition of Treat-and-Release | Post-ACA (2016) N = 5,986,274 | Pre-ACA (2009) N = 4,253,110 |
|---|----------------------------------|---------------------------------|
| | n (%) | n (%) |
| Treat-and-Release ED Visits | | |
| Yes | 4,725,090 (78.9) | 3,120,641 (73.4) |
| No | 1,261,184 (21.1) | 1,132,469 (26.6) |
| Model¹ | Odds Ratio (95% CI) | P-Value² |
| Model 1 | | |
| ACA | 1.360 (1.356, 1.364) | <0.0001 |
| Model 2 | | |
| ACA | 1.456 (1.452, 1.460) | <0.0001 |
| Age | 2.207 (2.202, 2.212) | <0.0001 |
| Model 3 | | |
| ACA | 1.365 (1.361, 1.369) | <0.0001 |
| Sex | 0.795 (0.793, 0.797) | <0.0001 |
| Model 4 | | |
| ACA | 1.470 (1.466, 1.475) | <0.0001 |
| Payer | 0.730 (0.729, 0.731) | <0.0001 |
| Model 5 | | |
| ACA | 1.355 (1.351, 1.359) | < 0.0001 |
| Region | 0.678 (0.673, 0.683) | < 0.0001 |
| Model 6 | | |
| ACA | 1.541 (1.536, 1.545) | < 0.0001 |
| Age | 2.046 (2.041, 2.051) | < 0.0001 |
| Sex | 0.778 (0.776, 0.781) | < 0.0001 |
| Payer | 0.785 (0.783, 0.786) | < 0.0001 |
| Region | 0.655 (0.651, 0.660) | < 0.0001 |

¹ Model 1: Treat-and-Release ED Visits = ACA; Model 2: Treat-and-Release ED Visits = ACA Age;

Model 3: Treat-and-Release ED Visits = ACA Sex; Model 4: Treat-and-Release ED Visits = ACA Payer;

Model 5: Treat-and-Release ED Visits = ACA Region; Model 6: Treat-and-Release ED Visits = ACA Age Sex Payer Region

² P-value using χ^2 test

Table 29
Summary of Psychiatric Diagnosis

| Psychiatric Diagnosis | Pre-ACA | Post-ACA | | |
|--|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=5,625,083 | 2011 N=6,289,383 | 2012 N=7,205,783 | 2013 N=7,329,616 |
| | n (%) | n (%) | n (%) | n (%) |
| Dementia/Delusional/Transient/Persistent | 46,134 (0.8) | 46,828 (0.7) | 50,797 (0.7) | 51,286 (0.7) |
| Drug and Alcohol Dependence | 3,300,614 (58.7) | 3,673,871 (58.4) | 4,138,853 (57.4) | 4,187,794 (57.1) |
| Schizophrenic and Other Psychoses | 240,212 (4.3) | 253,665 (4.0) | 290,191 (4.0) | 293,221 (4.0) |
| Depressive and Episodic Mood | 929,717 (16.5) | 1,018,793 (16.2) | 1,247,230 (17.3) | 1,274,297 (17.4) |
| Anxiety, dissociative and somatoform | 763,539 (13.6) | 907,779 (14.4) | 1,041,649 (14.5) | 1,079,079 (14.7) |
| Acute and Adjustment Reaction to Stress | 101,583 (1.8) | 122,254 (1.9) | 139,164 (1.9) | 143,488 (2.0) |
| Other | 243,284 (4.3) | 266,193 (4.2) | 297,899 (4.1) | 300,451 (4.1) |

Note: Each diagnosis category represents all psychiatric-related ED visits, Treated/Released, Admitted/Transferred and Other. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 29 (Continued)
Summary of Psychiatric Diagnosis

| Psychiatric Diagnosis | Pre-ACA | Post-ACA | | |
|--|---------------------|----------------------|---------------------|----------------------|
| | 2009 N=5,625,083 | 2014 N= 8,197,762 | 2015 N=8,313,408 | 2016 N= 8,835,667 |
| | n (%) | n (%) | n (%) | n (%) |
| Dementia/Delusional/Transient/Persistent | 46,134 (0.8) | 60,002 (0.7) | 59,351 (0.7) | 62,013 (0.7) |
| Drug and Alcohol Dependence | 3,300,614 (58.7) | 4,682,324 (57.1) | 4,863,755 (58.5) | 5,322,806 (60.2) |
| Schizophrenic and Other Psychoses | 240,212 (4.3) | 342,126 (4.2) | 309,408 (3.7) | 313,438 (3.5) |
| Depressive and Episodic Mood | 929,717 (16.5) | 1,397,360 (17.0) | 1,355,229 (16.3) | 1,354,876 (15.3) |
| Anxiety, dissociative and somatoform | 763,539 (13.6) | 1,215,822 (14.8) | 1,239,372 (14.9) | 1,322,450 (15.0) |
| Acute and Adjustment Reaction to Stress | 101,583 (1.8) | 164,162 (2.0) | 166,743 (2.0) | 184,628 (2.1) |
| Other | 243,284 (4.3) | 335,966 (4.1) | 319,550 (3.8) | 275,456 (3.1) |

Note: Each diagnosis category represents all psychiatric-related ED visits, Treated/Released, Admitted/Transferred and Other. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition:
Treated/Released

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 2009 N=5,625,083 | 2011 N=6,289,383 | 2012 N=7,205,783 | 2013 N=7,329,616 |
| | n (%) | n (%) | n (%) | n (%) |
| Treated/Released | 3,779,138 (67.2) | 4,402,230 (70.0) | 5,115,447 (71.0) | 5,248,833 (71.6) |
| Dementia/Delusional/Transient/Persistent | 16,680 (0.3) | 18,820 (0.3) | 21,548 (0.3) | 22,162 (0.3) |
| Drug and Alcohol Dependence | 2,349,758 (41.8) | 2,712,319 (43.1) | 3,092,459 (42.9) | 3,161,741 (43.1) |
| Schizophrenic and Other Psychoses | 127,707 (2.3) | 143,347 (2.3) | 171,496 (2.4) | 175,353 (2.4) |
| Depressive and Episodic Mood | 548,946 (9.8) | 630,444 (10.0) | 791,672 (11.0) | 815,228 (11.1) |
| Anxiety, dissociative and somatoform | 536,656 (9.5) | 653,982 (10.4) | 756,593 (10.5) | 785,344 (10.7) |
| Acute and Adjustment Reaction to Stress | 59,025 (1.0) | 76,600 (1.2) | 89,836 (1.2) | 93,805 (1.3) |
| Other | 140,366 (2.5) | 166,718 (2.6) | 191,843 (2.7) | 195,200 (2.7) |

Note: Each diagnosis category represents all psychiatric-related ED visits for the Treated/Released visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30 (Continued)
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition:
Treated/Released

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 2009 N=5,625,083 | 2014 N=8,197,762 | 2015 N=8,313,408 | 2016 N=8,835,667 |
| | n (%) | n (%) | n (%) | n (%) |
| Treated/Released | 3,779,138 (67.2) | 5,845,570 (71.3) | 5,566,915 (67.0) | 6,361,258 (72.0) |
| Dementia/Delusional/Transient/Persistent | 16,680 (0.3) | 25,304 (0.3) | 24,458 (0.3) | 29,627 (0.3) |
| Drug and Alcohol Dependence | 2,349,758 (41.8) | 3,543,056 (43.2) | 3,431,770 (41.3) | 4,041,312 (45.7) |
| Schizophrenic and Other Psychoses | 127,707 (2.3) | 200,217 (2.4) | 180,326 (2.2) | 196,329 (2.2) |
| Depressive and Episodic Mood | 548,946 (9.8) | 878,067 (10.7) | 806,453 (9.7) | 859,288 (9.7) |
| Anxiety, dissociative and somatoform | 536,656 (9.5) | 876,447 (10.7) | 828,418 (10.0) | 947,087 (10.7) |
| Acute and Adjustment Reaction to Stress | 59,025 (1.0) | 105,689 (1.3) | 101,845 (1.2) | 117,057 (1.3) |
| Other | 140,366 (2.5) | 216,790 (2.6) | 193,645 (2.3) | 170,558 (1.9) |

Note: Each diagnosis category represents all psychiatric-related ED visits for the Treated/Released visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30.1
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition:
Admitted/Transferred

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 2009 N=5,625,083 | 2011 N=6,289,383 | 2012 N=7,205,783 | 2013 N=7,329,616 |
| | n (%) | n (%) | n (%) | n (%) |
| Admitted/Transferred | 1,830,779 (32.5) | 1,869,278 (29.7) | 2,076,738 (28.8) | 2,065,590 (28.2) |
| Dementia/Delusional/Transient/Persistent | 29,229 (0.5) | 27,830 (0.4) | 29,124 (0.4) | 28,953 (0.4) |
| Drug and Alcohol Dependence | 944,080 (16.8) | 952,435 (15.1) | 1,039,393 (14.4) | 1,018,377 (13.9) |
| Schizophrenic and Other Psychoses | 110,865 (2.0) | 109,398 (1.7) | 117,961 (1.6) | 116,928 (1.6) |
| Depressive and Episodic Mood | 377,459 (6.7) | 384,601 (6.1) | 452,645 (6.3) | 455,794 (6.2) |
| Anxiety, dissociative and somatoform | 224,655 (4.0) | 251,035 (4.0) | 282,975 (3.9) | 291,589 (4.0) |
| Acute and Adjustment Reaction to Stress | 42,280 (0.7) | 45,373 (0.7) | 49,126 (0.7) | 49,380 (0.7) |
| Other | 102,211 (1.8) | 98,606 (1.6) | 105,514 (1.5) | 104,569 (1.4) |

Note: Each diagnosis category represents all psychiatric-related ED visits for the Admitted/Transferred visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30.1 (Continued)
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition:
Admitted/Transferred

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | 2009 N=5,625,083 | 2014 N=8,197,762 | 2015 N=8,313,408 | 2016 N=8,835,667 |
| | n (%) | n (%) | n (%) | n (%) |
| Admitted/Transferred | 1,830,779 (32.5) | 2,334,585 (28.5) | 2,227,188 (26.8) | 2,455,808 (27.8) |
| Dementia/Delusional/Transient/Persistent | 29,229 (0.5) | 34,491 (0.4) | 32,213 (0.4) | 32,217 (0.4) |
| Drug and Alcohol Dependence | 944,080 (16.8) | 1,129,769 (13.8) | 1,109,603 (13.3) | 1,270,905 (14.4) |
| Schizophrenic and Other Psychoses | 110,865 (2.0) | 140,278 (1.7) | 111,439 (1.3) | 116,351 (1.3) |
| Depressive and Episodic Mood | 377,459 (6.7) | 515,928 (6.3) | 472,523 (5.7) | 492,389 (5.6) |
| Anxiety, dissociative and somatoform | 224,655 (4.0) | 337,582 (4.1) | 337,834 (4.1) | 372,471 (4.2) |
| Acute and Adjustment Reaction to Stress | 42,280 (0.7) | 58,128 (0.7) | 55,717 (0.7) | 67,223 (0.8) |
| Other | 102,211 (1.8) | 118,409 (1.4) | 107,859 (1.3) | 104,252 (1.2) |

Note: Each diagnosis category represents all psychiatric-related ED visits for the Admitted/Transferred visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30.2
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition: Other

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=5,625,083 | 2011 N=6,289,383 | 2012 N=7,205,783 | 2013 N=7,329,616 |
| | n (%) | n (%) | n (%) | n (%) |
| Other | 15,166 (0.3) | 17,875 (0.3) | 13,598 (0.2) | 15,193 (0.2) |
| Dementia/Delusional/Transient/Persistent | 225 (<0.01) | 178 (<0.01) | 125 (<0.01) | 171 (<0.01) |
| Drug and Alcohol Dependence | 6,776 (0.1) | 9,117 (0.1) | 7,001 (0.1) | 7,676 (0.1) |
| Schizophrenic and Other Psychoses | 1,640 (0.03) | 920 (0.01) | 734 (0.01) | 940 (0.01) |
| Depressive and Episodic Mood | 3,312 (0.06) | 3,748 (0.1) | 2,913 (0.04) | 3,275 (0.04) |
| Anxiety, dissociative and somatoform | 2,228 (0.04) | 2,762 (0.04) | 2,081 (0.03) | 2,146 (0.03) |
| Acute and Adjustment Reaction to Stress | 278 (<0.01) | 281 (<0.01) | 202 (<0.01) | 303 (<0.01) |
| Other | 707 (0.01) | 869 (0.01) | 542 (0.01) | 682 (0.01) |

Note: Each diagnosis category represents all psychiatric-related ED visits for the Other visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 30.2 (Continued)
Summary of Psychiatric Diagnosis by Emergency Department Visit Disposition: Other

| Psychiatric Diagnosis for Psychiatric-Related ED Visits | Pre-ACA | Post-ACA | | |
|--|---------------------|---------------------|----------------------|---------------------|
| | 2009 N=5,625,083 | 2014 N=8,197,762 | 2015 N=8,313,408 | 2016 N=8,835,667 |
| | n (%) | n (%) | n (%) | n (%) |
| Other | 15,166 (0.3) | 17,607 (0.2) | 519,305 (6.2) | 18,601 (0.2) |
| Dementia/Delusional/Transient/Persistent | 225 (<0.01) | 207 (<0.01) | 2,680 (0.03) | 169 (<0.01) |
| Drug and Alcohol Dependence | 6,776 (0.1) | 9,499 (0.1) | 322,382 (3.9) | 10,589 (0.1) |
| Schizophrenic and Other Psychoses | 1,640 (0.03) | 1,631 (0.02) | 17,643 (0.2) | 758 (0.01) |
| Depressive and Episodic Mood | 3,312 (0.06) | 3,365 (0.04) | 76,253 (0.9) | 3,199 (0.04) |
| Anxiety, dissociative and somatoform | 2,228 (0.04) | 1,793 (0.02) | 73,120 (0.9) | 2,892 (0.03) |
| Acute and Adjustment Reaction to Stress | 278 (<0.01) | 345 (<0.01) | 9,181 (0.1) | 348 (<0.01) |
| Other | 707 (0.01) | 767 (0.01) | 18,046 (0.2) | 646 (0.01) |

Note: : Each diagnosis category represents all psychiatric-related ED visits for the Other visits. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for psychiatric-related visits, N.

Table 31
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=3,779,138 | 2011 N=4,402,230 | 2012 N=5,115,447 | 2013 N=5,248,833 |
| | n (%) | n (%) | n (%) | n (%) |
| Dementia/Delusional/Transient/Persistent | 16,680 (0.4) | 18,820 (0.4) | 21,548 (0.4) | 22,162 (0.4) |
| Drug and Alcohol Dependence | 2,349,758 (62.2) | 2,712,319 (61.6) | 3,092,459 (60.4) | 3,161,741 (60.2) |
| Schizophrenic and Other Psychoses | 127,707 (3.4) | 143,347 (3.3) | 171,496 (3.3) | 175,353 (3.3) |
| Depressive and Episodic Mood | 548,946 (14.5) | 630,444 (14.3) | 791,672 (15.5) | 815,228 (15.5) |
| Anxiety, dissociative and somatoform | 536,656 (14.2) | 653,982 (14.9) | 756,593 (14.8) | 785,344 (15.0) |
| Acute and Adjustment Reaction to Stress | 59,025 (1.6) | 76,600 (1.7) | 89,836 (1.8) | 93,805 (1.8) |
| Other | 140,366 (3.7) | 166,718 (3.8) | 191,843 (3.7) | 195,200 (3.7) |

Note: Percentages are based on total diagnoses for the Treat-and-Release ED visits, N.

Table 31 (Continued)
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|---------------------|---------------------|---------------------|---------------------|
| | 2009 N=3,779,138 | 2014 N=5,845,570 | 2015 N=5,566,915 | 2016 N=6,361,258 |
| | n (%) | n (%) | n (%) | n (%) |
| Dementia/Delusional/Transient/Persistent | 16,680 (0.4) | 25,304 (0.4) | 24,458 (0.4) | 29,627 (0.5) |
| Drug and Alcohol Dependence | 2,349,758 (62.2) | 3,543,056 (60.6) | 3,431,770 (61.7) | 4,041,312 (63.5) |
| Schizophrenic and Other Psychoses | 127,707 (3.4) | 200,217 (3.4) | 180,326 (3.2) | 196,329 (3.1) |
| Depressive and Episodic Mood | 548,946 (14.5) | 878,067 (15.0) | 806,453 (14.5) | 859,288 (13.5) |
| Anxiety, dissociative and somatoform | 536,656 (14.2) | 876,447 (15.0) | 828,418 (14.9) | 947,087 (14.9) |
| Acute and Adjustment Reaction to Stress | 59,025 (1.6) | 105,689 (1.8) | 101,845 (1.8) | 117,057 (1.8) |
| Other | 140,366 (3.7) | 216,790 (3.7) | 193,645 (3.5) | 170,558 (2.7) |

Note: Percentages are based on total diagnoses for the Treat-and-Release ED visits, N.

Table 32
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Age

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,779,138 | 2011 N=4,402,230 | 2012 N=5,115,447 | 2013 N=5,248,833 |
| | n (%) | n (%) | n (%) | n (%) |
| 18≤ age ≤25 | 765,907 (20.3) | 868,254 (19.7) | 976,610 (19.1) | 960,705 (18.3) |
| Dementia/Delusional/Transient/Persistent | 1,658 (0.04) | 1,845 (0.04) | 2,137 (0.04) | 2,215 (0.04) |
| Drug and Alcohol Dependence | 499,687 (13.2) | 558,429 (12.7) | 614,476 (12.0) | 601,638 (11.5) |
| Schizophrenic and Other Psychoses | 17,534 (0.5) | 20,239 (0.5) | 24,749 (0.5) | 24,508 (0.5) |
| Depressive and Episodic Mood | 93,085 (2.5) | 104,369 (2.4) | 125,375 (2.4) | 123,033 (2.3) |
| Anxiety, dissociative and somatoform | 96,777 (2.6) | 112,386 (2.5) | 127,664 (2.5) | 125,974 (2.4) |
| Acute and Adjustment Reaction to Stress | 12,831 (0.3) | 16,049 (0.4) | 18,255 (0.4) | 18,555 (0.3) |
| Other | 44,335 (1.2) | 54,937 (1.2) | 63,954 (1.2) | 64,782 (1.2) |
| 26≤ age ≤49 | 2,220,954 (58.8) | 2,528,582 (57.4) | 2,914,474 (57.0) | 2,981,107 (56.8) |
| Dementia/Delusional/Transient/Persistent | 6,060 (0.2) | 6,419 (0.1) | 7,381 (0.1) | 7,666 (0.1) |
| Drug and Alcohol Dependence | 1,395,014 (36.9) | 1,577,290 (35.8) | 1,784,441 (34.9) | 1,818,358 (34.6) |
| Schizophrenic and Other Psychoses | 73,162 (1.9) | 78,912 (1.8) | 93,729 (1.8) | 96,105 (1.8) |
| Depressive and Episodic Mood | 324,508 (8.6) | 358,186 (8.1) | 445,475 (8.7) | 455,742 (8.7) |
| Anxiety, dissociative and somatoform | 316,475 (8.4) | 381,079 (8.7) | 437,441 (8.5) | 452,681 (8.6) |
| Acute and Adjustment Reaction to Stress | 34,172 (0.9) | 44,116 (1.0) | 51,884 (1.0) | 54,572 (1.0) |
| Other | 71,563 (1.9) | 82,580 (1.9) | 94,123 (1.8) | 95,983 (1.8) |
| 50≤ age ≤64 | 792,277 (21.0) | 1,005,394 (22.8) | 1,224,363 (23.9) | 1,307,021 (24.9) |
| Dementia/Delusional/Transient/Persistent | 8,962 (0.2) | 10,556 (0.2) | 12,030 (0.2) | 12,281 (0.2) |
| Drug and Alcohol Dependence | 455,057 (12.0) | 576,600 (13.1) | 693,542 (13.6) | 741,745 (14.1) |
| Schizophrenic and Other Psychoses | 37,011 (1.0) | 44,196 (1.0) | 53,018 (1.0) | 54,740 (1.0) |
| Depressive and Episodic Mood | 131,353 (3.5) | 167,889 (3.8) | 220,822 (4.3) | 236,453 (4.5) |
| Anxiety, dissociative and somatoform | 123,404 (3.3) | 160,517 (3.6) | 191,488 (3.7) | 206,689 (3.9) |
| Acute and Adjustment Reaction to Stress | 12,022 (0.3) | 16,435 (0.4) | 19,697 (0.4) | 20,678 (0.4) |
| Other | 24,468 (0.6) | 29,201 (0.7) | 33,766 (0.7) | 34,435 (0.7) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each age category. ED Visits may have more than one psychiatric diagnosis. Percentages are based total diagnoses for Treat-and-Release visits, N.

Table 32 (Continued)
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Age

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,779,138 | 2014 N=5,845,570 | 2015 N=5,566,915 | 2016 N=6,361,258 |
| | n (%) | n (%) | n (%) | n (%) |
| 18≤ age ≤25 | 765,907 (20.3) | 1,044,234 (17.9) | 964,829 (17.3) | 1,067,243 (16.8) |
| Dementia/Delusional/Transient/Persistent | 1,658 (0.04) | 2,470 (0.04) | 2,491 (0.04) | 2,987 (0.05) |
| Drug and Alcohol Dependence | 499,687 (13.2) | 647,380 (11.1) | 603,182 (10.8) | 682,021 (10.7) |
| Schizophrenic and Other Psychoses | 17,534 (0.5) | 27,891 (0.5) | 24,733 (0.4) | 26,123 (0.4) |
| Depressive and Episodic Mood | 93,085 (2.5) | 133,276 (2.3) | 120,988 (2.2) | 127,978 (2.0) |
| Anxiety, dissociative and somatoform | 96,777 (2.6) | 142,033 (2.4) | 132,197 (2.4) | 148,752 (2.3) |
| Acute and Adjustment Reaction to Stress | 12,831 (0.3) | 19,761 (0.3) | 18,148 (0.3) | 21,280 (0.3) |
| Other | 44,335 (1.2) | 71,423 (1.2) | 63,090 (1.1) | 58,102 (0.9) |
| 26≤ age ≤49 | 2,220,954 (58.8) | 3,301,552 (56.5) | 3,139,916 (56.4) | 3,614,700 (56.8) |
| Dementia/Delusional/Transient/Persistent | 6,060 (0.2) | 8,767 (0.1) | 9,010 (0.2) | 10,985 (0.2) |
| Drug and Alcohol Dependence | 1,395,014 (36.9) | 2,032,257 (34.8) | 1,970,248 (35.4) | 2,342,948 (36.8) |
| Schizophrenic and Other Psychoses | 73,162 (1.9) | 109,394 (1.9) | 99,092 (1.8) | 111,204 (1.7) |
| Depressive and Episodic Mood | 324,508 (8.6) | 482,936 (8.3) | 437,681 (7.9) | 462,448 (7.3) |
| Anxiety, dissociative and somatoform | 316,475 (8.4) | 499,319 (8.5) | 467,566 (8.4) | 535,033 (8.4) |
| Acute and Adjustment Reaction to Stress | 34,172 (0.9) | 62,216 (1.1) | 60,377 (1.1) | 69,181 (1.1) |
| Other | 71,563 (1.9) | 106,663 (1.8) | 95,942 (1.7) | 82,901 (1.3) |
| 50≤ age ≤64 | 792,277 (21.0) | 1,499,784 (25.7) | 1,462,170 (26.3) | 1,679,315 (26.4) |
| Dementia/Delusional/Transient/Persistent | 8,962 (0.2) | 14,067 (0.2) | 12,957 (0.2) | 15,655 (0.2) |
| Drug and Alcohol Dependence | 455,057 (12.0) | 863,419 (14.8) | 858,340 (15.4) | 1,016,343 (16.0) |
| Schizophrenic and Other Psychoses | 37,011 (1.0) | 62,932 (1.1) | 56,501 (1.0) | 59,002 (0.9) |
| Depressive and Episodic Mood | 131,353 (3.5) | 261,855 (4.5) | 247,784 (4.4) | 268,862 (4.2) |
| Anxiety, dissociative and somatoform | 123,404 (3.3) | 235,095 (4.0) | 228,655 (4.1) | 263,302 (4.1) |
| Acute and Adjustment Reaction to Stress | 12,022 (0.3) | 23,712 (0.4) | 23,320 (0.4) | 26,596 (0.4) |
| Other | 24,468 (0.6) | 38,704 (0.7) | 34,613 (0.6) | 29,555 (0.5) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each age category. ED Visits may have more than one psychiatric diagnosis. Percentages are based total diagnoses for Treat-and-Release visits, N.

Table 33
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Sex

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | 2009 N=3,776,405 | 2011 N=4,400,917 | 2012 N=5,115,222 | 2013 N=5,248,636 |
| | n (%) | n (%) | n (%) | n (%) |
| Male | 1,758,370 (46.6) | 2,044,619 (46.5) | 2,374,026 (46.4) | 2,452,647 (46.7) |
| Dementia/Delusional/Transient/Persistent | 8,832 (0.2) | 9,765 (0.2) | 11,408 (0.2) | 11,767 (0.2) |
| Drug and Alcohol Dependence | 1,201,755 (31.8) | 1,389,529 (31.6) | 1,593,601 (31.1) | 1,641,073 (31.3) |
| Schizophrenic and Other Psychoses | 75,197 (2.0) | 84,991 (1.9) | 101,499 (2.0) | 105,382 (2.0) |
| Depressive and Episodic Mood | 200,713 (5.3) | 228,231 (5.2) | 284,908 (5.6) | 295,035 (5.6) |
| Anxiety, dissociative and somatoform | 181,252 (4.8) | 220,974 (5.0) | 254,139 (5.0) | 266,302 (5.1) |
| Acute and Adjustment Reaction to Stress | 23,036 (0.6) | 30,358 (0.7) | 35,471 (0.7) | 37,223 (0.7) |
| Other | 67,585 (1.8) | 80,771 (1.8) | 93,000 (1.8) | 95,865 (1.8) |
| Female | 2,018,035 (53.4) | 2,356,298 (53.5) | 2,741,196 (53.6) | 2,795,989 (53.3) |
| Dementia/Delusional/Transient/Persistent | 7,837 (0.2) | 9,053 (0.2) | 10,137 (0.2) | 10,395 (0.2) |
| Drug and Alcohol Dependence | 1,146,710 (30.4) | 1,321,810 (30.0) | 1,498,730 (29.3) | 1,520,542 (29.0) |
| Schizophrenic and Other Psychoses | 52,435 (1.4) | 58,323 (1.3) | 69,986 (1.4) | 69,963 (1.3) |
| Depressive and Episodic Mood | 347,571 (9.2) | 402,089 (9.1) | 506,735 (9.9) | 520,170 (9.9) |
| Anxiety, dissociative and somatoform | 354,914 (9.4) | 432,876 (9.8) | 502,419 (9.8) | 519,029 (9.9) |
| Acute and Adjustment Reaction to Stress | 35,957 (0.9) | 46,230 (1.0) | 54,363 (1.1) | 56,574 (1.1) |
| Other | 72,611 (1.9) | 85,917 (1.9) | 98,826 (1.9) | 99,316 (1.9) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each sex category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N. The number of ED psychiatric diagnosis with missing sex information were 2,733 in 2009, 1,313 in 2011, 225 in 2012, 197 in 2013, 189 in 2014, 803 in 2015, and 908 in 2016.

Table 33 (Continued)
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Sex

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | 2009 N=3,776,405 | 2014 N=5,845,381 | 2015 N=5,566,112 | 2016 N=6,360,350 |
| | n (%) | n (%) | n (%) | n (%) |
| Male | 1,758,370 (46.6) | 2,758,977 (47.2) | 2,662,431 (47.8) | 3,065,654 (48.2) |
| Dementia/Delusional/Transient/Persistent | 8,832 (0.2) | 13,604 (0.2) | 13,028 (0.2) | 15,532 (0.2) |
| Drug and Alcohol Dependence | 1,201,755 (31.8) | 1,854,899 (31.7) | 1,822,675 (32.7) | 2,162,087 (34.0) |
| Schizophrenic and Other Psychoses | 75,197 (2.0) | 121,795 (2.1) | 109,277 (2.0) | 119,816 (1.9) |
| Depressive and Episodic Mood | 200,713 (5.3) | 321,236 (5.5) | 295,337 (5.3) | 313,755 (4.9) |
| Anxiety, dissociative and somatoform | 181,252 (4.8) | 298,312 (5.1) | 284,740 (5.1) | 321,140 (5.0) |
| Acute and Adjustment Reaction to Stress | 23,036 (0.6) | 42,226 (0.7) | 40,520 (0.7) | 46,537 (0.7) |
| Other | 67,585 (1.8) | 106,905 (1.8) | 96,854 (1.7) | 86,787 (1.4) |
| Female | 2,018,035 (53.4) | 3,086,404 (52.8) | 2,903,681 (52.2) | 3,294,696 (51.8) |
| Dementia/Delusional/Transient/Persistent | 7,837 (0.2) | 11,698 (0.2) | 11,429 (0.2) | 14,092 (0.2) |
| Drug and Alcohol Dependence | 1,146,710 (30.4) | 1,688,053 (28.9) | 1,608,553 (28.9) | 1,878,858 (29.5) |
| Schizophrenic and Other Psychoses | 52,435 (1.4) | 78,412 (1.3) | 71,034 (1.3) | 76,496 (1.2) |
| Depressive and Episodic Mood | 347,571 (9.2) | 556,808 (9.5) | 511,025 (9.2) | 545,307 (8.6) |
| Anxiety, dissociative and somatoform | 354,914 (9.4) | 578,110 (9.9) | 543,593 (9.8) | 625,710 (9.8) |
| Acute and Adjustment Reaction to Stress | 35,957 (0.9) | 63,457 (1.1) | 61,309 (1.1) | 70,496 (1.1) |
| Other | 72,611 (1.9) | 109,866 (1.9) | 96,738 (1.7) | 83,737 (1.3) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each sex category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N. The number of ED psychiatric diagnosis with missing sex information were 2,733 in 2009, 1,313 in 2011, 225 in 2012, 197 in 2013, 189 in 2014, 803 in 2015, and 908 in 2016.

Table 34
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Payer

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,759,300 | 2011 N=4,382,064 | 2012 N=5,107,171 | 2013 N=5,238,086 |
| | n (%) | n (%) | n (%) | n (%) |
| Medicare | 465,408 (12.4) | 585,468 (13.4) | 717,651 (14.0) | 743,614 (14.2) |
| Dementia/Delusional/Transient/Persistent | 5,501 (0.1) | 6,534 (0.1) | 7,584 (0.1) | 7,688 (0.1) |
| Drug and Alcohol Dependence | 214,393 (5.7) | 271,413 (6.2) | 329,500 (6.4) | 335,700 (6.4) |
| Schizophrenic and Other Psychoses | 40,924 (1.1) | 47,963 (1.1) | 56,055 (1.1) | 56,535 (1.1) |
| Depressive and Episodic Mood | 99,955 (2.7) | 123,010 (2.8) | 160,341 (3.1) | 168,769 (3.2) |
| Anxiety, dissociative and somatoform | 67,662 (1.8) | 90,888 (2.1) | 110,528 (2.2) | 120,591 (2.3) |
| Acute and Adjustment Reaction to Stress | 7,482 (0.2) | 11,332 (0.3) | 14,100 (0.3) | 14,590 (0.3) |
| Other | 29,491 (0.8) | 34,328 (0.8) | 39,543 (0.8) | 39,741 (0.8) |
| Medicaid | 978,679 (26.0) | 1,264,268 (28.8) | 1,472,047 (28.8) | 1,493,767 (28.5) |
| Dementia/Delusional/Transient/Persistent | 4,159 (0.1) | 4,708 (0.1) | 5,524 (0.1) | 5,644 (0.1) |
| Drug and Alcohol Dependence | 583,770 (15.5) | 759,557 (17.3) | 862,370 (16.9) | 868,925 (16.6) |
| Schizophrenic and Other Psychoses | 42,266 (1.1) | 51,486 (1.2) | 61,476 (1.2) | 62,339 (1.2) |
| Depressive and Episodic Mood | 157,195 (4.2) | 193,351 (4.4) | 244,912 (4.8) | 251,003 (4.8) |
| Anxiety, dissociative and somatoform | 136,444 (3.6) | 181,049 (4.1) | 212,014 (4.1) | 218,147 (4.2) |
| Acute and Adjustment Reaction to Stress | 14,546 (0.4) | 21,810 (0.5) | 25,690 (0.5) | 27,408 (0.5) |
| Other | 40,299 (1.1) | 52,307 (1.2) | 60,061 (1.2) | 60,301 (1.1) |
| Private | 969,559 (25.8) | 1,040,495 (23.7) | 1,149,792 (22.5) | 1,166,154 (22.3) |
| Dementia/Delusional/Transient/Persistent | 3,681 (0.1) | 3,855 (0.1) | 4,011 (0.1) | 4,228 (0.1) |
| Drug and Alcohol Dependence | 559,625 (14.9) | 589,633 (13.5) | 637,636 (12.5) | 643,614 (12.3) |
| Schizophrenic and Other Psychoses | 15,856 (0.4) | 15,296 (0.3) | 16,580 (0.3) | 18,600 (0.4) |
| Depressive and Episodic Mood | 149,123 (4.0) | 159,303 (3.6) | 189,001 (3.7) | 192,213 (3.7) |
| Anxiety, dissociative and somatoform | 183,515 (4.9) | 207,086 (4.7) | 229,484 (4.5) | 233,284 (4.4) |
| Acute and Adjustment Reaction to Stress | 18,437 (0.5) | 20,546 (0.5) | 23,029 (0.4) | 23,355 (0.4) |
| Other | 39,322 (1.0) | 44,776 (1.0) | 50,051 (1.0) | 50,860 (1.0) |
| Uninsured | 1,345,654 (35.8) | 1,491,833 (34.0) | 1,767,681 (34.6) | 1,834,551 (35.0) |
| Dementia/Delusional/Transient/Persistent | 3,240 (0.1) | 3,677 (0.1) | 4,395 (0.1) | 4,555 (0.1) |
| Drug and Alcohol Dependence | 980,540 (26.1) | 1,077,961 (24.6) | 1,257,507 (24.6) | 1,306,439 (24.9) |
| Schizophrenic and Other Psychoses | 28,201 (0.7) | 28,234 (0.6) | 37,211 (0.7) | 37,633 (0.7) |
| Depressive and Episodic Mood | 139,189 (3.7) | 152,317 (3.5) | 196,377 (3.8) | 201,704 (3.8) |
| Anxiety, dissociative and somatoform | 145,822 (3.9) | 172,362 (3.9) | 203,440 (4.0) | 211,839 (4.0) |
| Acute and Adjustment Reaction to Stress | 18,166 (0.5) | 22,576 (0.5) | 26,834 (0.5) | 28,309 (0.5) |
| Other | 30,496 (0.8) | 34,706 (0.8) | 41,917 (0.8) | 44,072 (0.8) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each payer category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N. The number of ED psychiatric diagnosis with missing payer information were 19,838 in 2009, 20,166 in 2011, 8,276 in 2012, 10,747 in 2013, 11,067 in 2014, 5,926 in 2015, and 8,392 in 2016.

Table 34 (Continued)
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Payer

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | Post-ACA | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,759,300 | 2014 N=5,834,503 | 2015 N= 5,560,989 | 2016 N=6,352,866 |
| | n (%) | n (%) | n (%) | n (%) |
| Medicare | 465,408 (12.4) | 835,986 (14.3) | 797,682 (14.3) | 885,152 (13.9) |
| Dementia/Delusional/Transient/Persistent | 5,501 (0.1) | 8,836 (0.1) | 8,217 (0.1) | 9,590 (0.1) |
| Drug and Alcohol Dependence | 214,393 (5.7) | 388,081 (6.6) | 378,548 (6.8) | 437,114 (6.9) |
| Schizophrenic and Other Psychoses | 40,924 (1.1) | 62,039 (1.1) | 55,397 (1.0) | 60,871 (1.0) |
| Depressive and Episodic Mood | 99,955 (2.7) | 181,178 (3.1) | 168,996 (3.0) | 177,161 (2.8) |
| Anxiety, dissociative and somatoform | 67,662 (1.8) | 135,258 (2.3) | 129,339 (2.3) | 143,989 (2.3) |
| Acute and Adjustment Reaction to Stress | 7,482 (0.2) | 17,270 (0.3) | 17,218 (0.3) | 18,979 (0.3) |
| Other | 29,491 (0.8) | 43,324 (0.7) | 39,967 (0.7) | 37,448 (0.6) |
| Medicaid | 978,679 (26.0) | 2,055,663 (35.2) | 2,156,079 (38.8) | 2,412,289 (38.0) |
| Dementia/Delusional/Transient/Persistent | 4,159 (0.1) | 7,514 (0.1) | 7,773 (0.1) | 9,629 (0.1) |
| Drug and Alcohol Dependence | 583,770 (15.5) | 1,236,440 (21.2) | 1,337,460 (24.0) | 1,541,362 (24.3) |
| Schizophrenic and Other Psychoses | 42,266 (1.1) | 79,924 (1.4) | 80,028 (1.4) | 84,632 (1.3) |
| Depressive and Episodic Mood | 157,195 (4.2) | 322,697 (5.5) | 316,631 (5.7) | 331,740 (5.2) |
| Anxiety, dissociative and somatoform | 136,444 (3.6) | 296,047 (5.1) | 301,169 (5.4) | 337,258 (5.3) |
| Acute and Adjustment Reaction to Stress | 14,546 (0.4) | 35,924 (0.6) | 39,427 (0.7) | 44,439 (0.7) |
| Other | 40,299 (1.1) | 77,117 (1.3) | 73,591 (1.3) | 63,229 (1.0) |
| Private | 969,559 (25.8) | 1,354,023 (23.2) | 1,340,866 (24.1) | 1,556,916 (24.5) |
| Dementia/Delusional/Transient/Persistent | 3,681 (0.1) | 4,621 (0.1) | 4,702 (0.1) | 5,770 (0.1) |
| Drug and Alcohol Dependence | 559,625 (14.9) | 758,021 (13.0) | 773,186 (13.9) | 920,046 (14.5) |
| Schizophrenic and Other Psychoses | 15,856 (0.4) | 23,213 (0.4) | 19,365 (0.3) | 22,395 (0.3) |
| Depressive and Episodic Mood | 149,123 (4.0) | 214,536 (3.7) | 204,064 (3.7) | 224,315 (3.5) |
| Anxiety, dissociative and somatoform | 183,515 (4.9) | 269,016 (4.6) | 262,661 (4.7) | 307,801 (4.8) |
| Acute and Adjustment Reaction to Stress | 18,437 (0.5) | 26,773 (0.5) | 25,049 (0.4) | 30,170 (0.5) |
| Other | 39,322 (1.0) | 57,843 (1.0) | 51,839 (0.9) | 46,419 (0.7) |
| Uninsured | 1,345,654 (35.8) | 1,588,831 (27.2) | 1,266,362 (22.8) | 1,498,509 (23.6) |
| Dementia/Delusional/Transient/Persistent | 3,240 (0.1) | 4,308 (0.1) | 3,742 (0.1) | 4,609 (0.1) |
| Drug and Alcohol Dependence | 980,540 (26.1) | 1,152,748 (19.8) | 938,816 (16.9) | 1,136,592 (17.9) |
| Schizophrenic and Other Psychoses | 28,201 (0.7) | 34,819 (0.6) | 25,415 (0.5) | 28,272 (0.4) |
| Depressive and Episodic Mood | 139,189 (3.7) | 158,437 (2.7) | 115,959 (2.1) | 125,299 (2.0) |
| Anxiety, dissociative and somatoform | 145,822 (3.9) | 174,789 (3.0) | 134,349 (2.4) | 157,090 (2.5) |
| Acute and Adjustment Reaction to Stress | 18,166 (0.5) | 25,515 (0.4) | 20,028 (0.4) | 23,327 (0.4) |
| Other | 30,496 (0.8) | 38,215 (0.6) | 28,053 (0.5) | 23,320 (0.4) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each payer category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N. The number of ED psychiatric diagnosis with missing payer information were 19,838 in 2009, 20,166 in 2011, 8,276 in 2012, 10,747 in 2013, 11,067 in 2014, 5,926 in 2015, and 8,392 in 2016.

Table 35
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Hospital Region

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | | Post-ACA | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,779,138 | 2011 N=4,402,230 | 2012 N=5,115,447 | 2013 N=5,248,833 |
| | n (%) | n (%) | n (%) | n (%) |
| Urban | 3,578,675 (94.7) | 4,193,111 (95.2) | 4,884,032 (95.5) | 4,983,027 (94.9) |
| Dementia/Delusional/Transient/Persistent | 15,597 (0.4) | 17,714 (0.4) | 20,446 (0.4) | 20,962 (0.4) |
| Drug and Alcohol Dependence | 2,229,545 (59.0) | 2,585,954 (58.7) | 2,955,603 (57.8) | 3,002,317 (57.2) |
| Schizophrenic and Other Psychoses | 122,192 (3.2) | 137,488 (3.1) | 165,358 (3.2) | 168,698 (3.2) |
| Depressive and Episodic Mood | 521,963 (13.8) | 604,202 (13.7) | 759,107 (14.8) | 776,953 (14.8) |
| Anxiety, dissociative and somatoform | 501,795 (13.3) | 616,837 (14.0) | 713,859 (13.9) | 738,677 (14.1) |
| Acute and Adjustment Reaction to Stress | 55,078 (1.5) | 72,816 (1.6) | 85,901 (1.7) | 89,443 (1.7) |
| Other | 132,505 (3.5) | 158,100 (3.6) | 183,758 (3.6) | 185,977 (3.5) |
| Rural | 200,463 (5.3) | 209,119 (4.8) | 231,415 (4.5) | 265,806 (5.1) |
| Dementia/Delusional/Transient/Persistent | 1,083 (0.03) | 1,106 (0.03) | 1,102 (0.02) | 1,200 (0.02) |
| Drug and Alcohol Dependence | 120,213 (3.2) | 126,365 (2.9) | 136,856 (2.7) | 159,424 (3.0) |
| Schizophrenic and Other Psychoses | 5,515 (0.1) | 5,859 (0.1) | 6,138 (0.1) | 6,655 (0.1) |
| Depressive and Episodic Mood | 26,983 (0.7) | 26,242 (0.6) | 32,565 (0.6) | 38,275 (0.7) |
| Anxiety, dissociative and somatoform | 34,861 (0.9) | 37,145 (0.8) | 42,734 (0.8) | 46,667 (0.9) |
| Acute and Adjustment Reaction to Stress | 3,947 (0.1) | 3,784 (0.1) | 3,935 (0.1) | 4,362 (0.1) |
| Other | 7,861 (0.2) | 8,618 (0.2) | 8,085 (0.2) | 9,223 (0.2) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each region category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N.

Table 35 (Continued)
Summary of Psychiatric Diagnosis of Psychiatric-Related ED Visits with Treat-and-Release Disposition by Hospital Region

| Psychiatric Diagnosis for ED Visits with Treat-and-Release Disposition | Pre-ACA | | Post-ACA | |
|--|-------------------------|-------------------------|-------------------------|-------------------------|
| | 2009 N=3,779,138 | 2014 N=5,845,570 | 2015 N=5,566,915 | 2016 N=6,361,258 |
| | n (%) | n (%) | n (%) | n (%) |
| Urban | 3,578,675 (94.7) | 5,561,140 (95.1) | 5,345,651 (96.0) | 5,965,241 (93.8) |
| Dementia/Delusional/Transient/Persistent | 15,597 (0.4) | 23,953 (0.4) | 23,378 (0.4) | 27,869 (0.4) |
| Drug and Alcohol Dependence | 2,229,545 (59.0) | 3,367,722 (57.6) | 3,296,830 (59.2) | 3,782,184 (59.5) |
| Schizophrenic and Other Psychoses | 122,192 (3.2) | 192,643 (3.3) | 175,220 (3.1) | 187,630 (2.9) |
| Depressive and Episodic Mood | 521,963 (13.8) | 839,931 (14.4) | 774,957 (13.9) | 810,233 (12.7) |
| Anxiety, dissociative and somatoform | 501,795 (13.3) | 829,227 (14.2) | 790,625 (14.2) | 883,788 (13.9) |
| Acute and Adjustment Reaction to Stress | 55,078 (1.5) | 100,560 (1.7) | 97,693 (1.7) | 110,746 (1.7) |
| Other | 132,505 (3.5) | 207,104 (3.5) | 186,948 (3.4) | 162,791 (2.6) |
| Rural | 200,463 (5.3) | 284,430 (4.9) | 221,264 (4.0) | 396,017 (6.2) |
| Dementia/Delusional/Transient/Persistent | 1,083 (0.03) | 1,351 (0.02) | 1,080 (0.02) | 1,758 (0.03) |
| Drug and Alcohol Dependence | 120,213 (3.2) | 175,334 (3.0) | 134,940 (2.4) | 259,128 (4.1) |
| Schizophrenic and Other Psychoses | 5,515 (0.1) | 7,574 (0.1) | 5,106 (0.1) | 8,699 (0.1) |
| Depressive and Episodic Mood | 26,983 (0.7) | 38,136 (0.6) | 31,496 (0.6) | 49,055 (0.8) |
| Anxiety, dissociative and somatoform | 34,861 (0.9) | 47,220 (0.8) | 37,793 (0.7) | 63,299 (1.0) |
| Acute and Adjustment Reaction to Stress | 3,947 (0.1) | 5,129 (0.1) | 4,152 (0.1) | 6,311 (0.1) |
| Other | 7,861 (0.2) | 9,686 (0.2) | 6,697 (0.1) | 7,767 (0.1) |

Note: Each diagnosis category represents all psychiatric-related ED visits with Treat-and-Release disposition for each region category. ED Visits may have more than one psychiatric diagnosis. Percentages are based on total diagnoses for Treat-and-Release visits, N.