

## PSYCHOSES

*For Schizophrenia, see “Schizophrenia” case definition*

### Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) for the purpose of descriptive epidemiological reports on mental disorders and mental health problems among active duty Service members.<sup>1</sup> The reports provide a comprehensive look at the status of mental health in the Services and provide in depth information on numbers, rates, and trends of psychosis and other mental health diagnoses.

### Clinical Description

Psychoses are a component of certain serious mental disorders and are usually marked by an individual having false beliefs about what is taking place in reality. Psychotic symptoms often include delusions (believing something is true despite strong evidence to the contrary), hallucinations (seeing and hearing things that are not actually present), disorganized thoughts and speech, and disordered thinking.<sup>2</sup>

#### Case Definition and Incidence Rules

For surveillance purposes, a case of psychosis is defined as:

- *One hospitalization* with a case defining diagnosis of psychoses (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *Two outpatient medical encounters, within 180 days* of each other, with a case defining diagnosis of psychoses (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *One outpatient medical encounter in a psychiatric or mental health care specialty setting*, defined by Medical Expense and Performance Reporting System (MEPRS) code BF, with a case defining diagnosis of psychoses (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position.

#### Incidence rules:

For individuals who meet the case definition:

- The incidence date is considered the date of the first hospitalization or outpatient medical encounter that includes a case defining diagnosis of psychoses.
- An individual is considered an incident case *once per lifetime*.

*(continued on next page)*

<sup>1</sup> Armed Forces Health Surveillance Branch. Mental health disorders and mental health problems, active component, U.S. Armed Forces, 2007-2016. *Medical Surveillance Monthly Report (MSMR)*. March 2018; Vol.25 (3): 2- 11.

<sup>2</sup> American Psychiatric Association. Adjustment Disorders. In: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Arlington, VA: 2013.



### Case Definition and Incidence Rules *(continued)*

#### Exclusions:

- None

### Codes

The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Other psychosis	F06.0 (psychotic disorder with hallucinations due to known <i>physiological condition</i> )	293.82 (psychotic disorder with hallucinations in conditions classified elsewhere)
	F06.2 (psychotic disorder with delusions due to known <i>physiological condition</i> )  <i>ICD10 codes F06.0 and F06.2 are psychotic disorders due to a known physiological condition. Investigators may wish to exclude these codes.</i>	293.81 (psychotic disorder with delusions in conditions classified elsewhere)
Delusional disorders	F22 (delusional disorders)	297.0 (paranoid state, simple) 297.1 (delusional disorder) 297.2 (paraphrenia) 297.8 (other specified paranoid states) 297.9 (unspecified paranoid state)
Other non-mood psychotic disorders	F23 (brief psychotic disorder)	298.3 (acute paranoid reaction) 298.4 (psychogenic paranoid psychosis) 298.8 (other and unspecified reactive psychosis)
	F24 (shared psychotic disorder)	297.3 (shared psychotic disorder)
	F28 (other psychotic disorder not due to a substance or known physiological condition)	298.1 (excitative type psychosis)
	F29 (unspecified psychosis not due to a substance or known physiological condition)	298.9 (unspecified psychosis)
(Mood [affective] disorders)	F32.3 (major depressive disorder, single episode, severe with psychotic features) F33.3 (major depressive disorder, recurrent, severe with psychotic symptoms)  <i>ICD10 codes F32.3 and F33.3 are included in the AFHSB case definition for Major Depression. For reports on all Mental</i>	298.0 (depressive type psychosis)

*(continued on next page)*



	<i>Health conditions (that include both psychoses and major depression) investigators may wish to exclude these codes from one category to avoid duplicate counts of cases.</i>	
--	<i>Translated code F44.89 (other dissociative and conversion disorders) is not included in the code set. See Code Set Determination and Rationale below.</i>	298.2 (reactive confusion)

### **Development and Revisions**

- In January of 2016 the case definition was updated to include ICD10 codes.
- This case definition was developed in November of 2010 by AFHSC *Medical Surveillance Monthly Report (MSMR)* staff for an article on mental disorders and mental health problems among active duty Service members.<sup>1</sup> The case definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

#### *Case Definition and Incidence Rule Rationale*

- To increase the specificity of the case definition for outpatient encounters, two such encounters with the defining diagnoses are required. The period of 180 days was established to allow for the likelihood that “true” cases of psychosis would have a second encounter within that interval.
- For the purposes of counting new incident cases, AFHSB uses a once per lifetime incidence rule unless a specific timeframe is more appropriate and is specified (e.g., individuals may be counted as an incident case once every 365 days). Historically, a "once per surveillance period" incidence rule was used due to limited data in the Defense Medical Surveillance System (DMSS), but that is no longer necessary.

#### *Code Set Determination and Rationale*

- ICD9 code 298.2 (reactive confusion) is included in the code set as the diagnosis falls within the broader category of “other nonorganic psychoses.” Data show there are approximately 30-40 outpatient encounters per year of reactive confusion and 2 inpatient encounters from 2004-2013. This code translates to ICD10 code F44.89 (other dissociative and conversion disorders). These are not considered psychotic disorders and, therefore, are not included in the code set.
- The code set and groupings of mental health disorder-specific diagnoses used in this case definition are based on code sets developed by Garvey *et al*<sup>3</sup> and Seal *et al*.<sup>4</sup> The final code set was selected after a review of the scientific literature and of the relevant codes in the International Classification of Diseases, 9<sup>th</sup> Revision.

<sup>3</sup> Garvey Wilson A, Messer S, Hoge C. U.S. military mental health care utilization and attrition prior to the wars in Iraq and Afghanistan. *Soc Psychiatry Psychiatr Epidemiol.* 2009; 44 (6):473-481.

<sup>4</sup> Seal KH, Bertenthal D, Miner CR, Sen S, Marmar C. Bringing the War Back Home: Mental Health Disorders Among 103 788 US Veterans Returning From Iraq and Afghanistan Seen at Department of Veterans Affairs Facilities. *Arch Intern Med.* March 12, 2007; 167 (5):476-482.



## Reports

---

AFHSB reports on psychosis in the following reports:

- Periodic *MSMR* articles on mental disorders and associated hospitalizations, outpatient medical encounters, and post-deployment illnesses.
- Annually: *MSMR* article on the “Absolute and relative morbidity burdens attributable to various illnesses and injuries, U.S. Armed Forces.” (see *Comments* section below).

## Review

---

Mar 2019	Case definition reviewed and updated by the AFHSB Surveillance Methods and Standards (SMS) working group.
Jan 2015	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
Sep 2012	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards working group.
Nov 2010	Case definition developed and reviewed by AFHSC <i>MSMR</i> staff.

## Comments

---

### *Burden of Disease Reports:*

AFHSB articles and reports on the “burden” of illness and injury in the U.S. Armed Forces group all illness and injury-specific diagnoses, defined by ICD9 and ICD10 codes, into 142 burden of disease-related conditions and 25 categories based on a modified version of the classification system developed for the Global Burden of Disease (GBD) Study.<sup>5</sup> In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

The AFHSB disaggregates some diagnoses that are grouped into single categories in the GBD system (e.g., mental disorders) to increase the military relevance of the results. The category of mental health disorders is separated into the following sub-categories of “disorders”: anxiety, substance abuse, adjustment, mood, tobacco dependence, psychotic, personality, somatoform, and all other mental disorders.<sup>6</sup>

Because reports on disease burden are based on the total numbers of medical encounters for specific conditions, a slightly different case definition is used for burden analyses. The case definition requires capturing only the diagnosis in the primary (first) diagnostic position of each record of an inpatient or outpatient medical encounter. Each individual is allowed only one medical encounter per condition per day, and inpatient encounters are prioritized over outpatient encounters on the same day. Case defining codes are any ICD9 codes between 001 and 999, any ICD10 codes between A00 and T88, ICD10 codes beginning with Z37 (outcome of delivery), and DoD unique personal history codes DoD 0101-0105.

<sup>5</sup> The global burden of disease: A comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020. Murray, CJ and Lopez, AD, eds. Harvard School of Public Health (on behalf of the World Health Organization and The World Bank), 1996:120-2.

<sup>6</sup> Armed Forces Health Surveillance Branch. Absolute and relative morbidity burdens attributable to various illnesses and injuries, active component, *Medical Surveillance Monthly Report (MSMR)*. May 2018; Vol.25 (5): 2-9.



*Comprehensive AFHSB Mental Health Reports:*

For analyses and reports requiring data on *all* mental disorders, AFHSB includes *all* mental health diagnoses that fall within the range of ICD9 codes 290-319 / ICD10 codes F01-F99 (mental disorders) in the first or second diagnostic position. The following diagnoses are excluded from the analysis.

- Codes ICD9 310.2 / ICD10 F07.81 (post-concussion syndrome)
- Codes ICD9 305.1 / ICD10 F17\* (tobacco use disorder / nicotine dependence) is not included as tobacco-cessation efforts are widespread within primary care clinics in the military and this diagnosis is not treated as a mental health disorder.
- Codes ICD9 317\*-319\* / ICD10 F70-F79 (mental retardation)
- Codes ICD9 315\* / ICD10 F80\*-F82\*, F88-F89 (specific delays in development)
- Codes ICD9 299\* / ICD10 F84\* (pervasive developmental disorders)

