

DEPRESSIVE DISORDERS

Includes Major Depressive Disorders, Persistent Mood Disorders and Dysthymia.

Background

This case definition was developed by the Armed Forces Health Surveillance Division (AFHSD) for the purpose of descriptive epidemiological reports on mental disorders and mental health problems among active-duty Service members.¹ 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 depressive disorders and other mental health diagnoses.

Clinical Description

Depressive disorders are mental illnesses characterized by a persistent, all-encompassing, low mood often accompanied by one or more of the following symptoms: depressed mood, loss of interest or pleasure in normally enjoyable activities, weight loss or gain, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or excessive guilt, diminished ability to think or concentrate, insomnia or hypersomnia, and recurrent thoughts of death or suicide. Major depressive disorder manifests as a moderate to severe episode of depression lasting two or more weeks. The Diagnostic and Statistical Manual (DSM-5) added two specifiers to further classify major depressive diagnoses: with mixed features and with anxious distress. Dysthymic disorder is characterized by ongoing, chronic depression often lasting for two or more years²

Case Definition and Incidence Rules

For surveillance purposes, a case of a depressive disorder is defined as:

- *One hospitalization* with a case defining diagnosis of depressive disorder (see ICD9 and ICD10 code lists below) in the *first or second* diagnostic position; or
- *Two outpatient or Theater Medical Data Store (TMDS) medical encounters*, within 180 days of each other, with a case defining diagnosis of a depressive disorder (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 diagnoses of a depressive disorder (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 a depressive disorder.

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¹ Armed Forces Health Surveillance Division. Mental health disorders and mental health problems, active component, U.S. Armed Forces, 2016-2020. *Medical Surveillance Monthly Report (MSMR)*. August 2021; Vol. 28 (8): 2-9.

² American Psychiatric Association. Depressive Disorders. In: *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*. Arlington, VA: 2013.



Case Definition and Incidence Rules *(continued)*

- An individual is considered an incident case *once per lifetime*.

Exclusions:

- None

Codes

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

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Major depressive disorders	<i>F32 (major depressive episode...)</i>	<i>296.2 (major depressive affective disorder...)</i>
	F32.0 (single episode, mild)	296.21 (single episode, mild)
	F32.1 (single episode, moderate)	296.22 (single episode, moderate)
	F32.2 (single episode, severe <i>without</i> psychotic features)	296.23 (single episode, severe, without mention of psychotic behavior)
	F32.3 (single episode, severe <i>with</i> psychotic features)	296.24 (single episode, severe, specified as with psychotic behavior)
	F32.4 (single episode, in partial remission)	296.25 (single episode, in partial or unspecified remission)
	F32.5 (single episode, in full remission)	296.26 (single episode, in full remission)
	F32.8 (other depressive episodes)	--
	- F32.81 (premenstrual dysphoric disorder)	<i>Translated code too broad for inclusion.</i>
	- F32.89 (other specified depressive episodes)	296.82 (atypical depressive disorder)
	F32.9 (single episode, unspecified)	296.20 (single episode, unspecified) 311 (depressive disorder, not elsewhere classified)
	F32.A (depression, unspecified); <i>new 2022</i>	<i>No data available to convert ICD10 codes added after 2018.</i>
	<i>F33 (major depressive disorder, recurrent...)</i>	<i>296.3 (major depressive affective disorder, recurrent episode...)</i>
	F33.0 (mild)	296.31 (mild)
	F33.1 (moderate)	296.32 (moderate)

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	F33.2 (severe, without psychotic features)	296.33 (severe without mention of psychotic behavior)
	F33.3 (severe with psychotic symptoms)	296.34 (specified as with psychotic behavior)
	F33.4 (in remission)	--
	- F33.40 (in remission, unspecified)	296.30 (unspecified)
	- F33.41 (in partial remission)	296.35 (in partial or unspecified remission)
	- F33.42 (in full remission)	296.36 (in full remission)
	F33.8 (other recurrent depressive disorders)	296.99 (other specified episodic mood disorder)
	F33.9 (unspecified)	296.30 (see above)
Persistent mood disorders	<i>F34 (persistent mood [affective] disorders)</i>	--
	F34.1 (dysthymic disorder)	300.4 (dysthymic disorder)
	F34.8 (other persistent mood [affective] disorders)	296.99 (above)
	- F34.81 (disruptive mood dysregulation disorder)	
	- F34.89 (other specified persistent mood disorders)	
	F34.9 (persistent mood [affective] disorder, unspecified)	
	<i>F39 (unspecified mood [affective] disorder)</i>	296.9 (other and unspecified episodic mood disorder) 296.90 (unspecified episodic mood disorder)

Development and Revisions

- In July of 2014 the case definition was updated to include ICD10 codes.
- This case definition was developed in November of 2010 by the Armed Forces Health Surveillance Center (AFHSC) *Medical Surveillance Monthly Report (MSMR)* staff for an article on mental disorders and mental health problems among active duty Service members. 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 a depressive disorder would have a second encounter within that interval.

Code Set Determination and Rationale

- In 2022, the following codes were added to the code set:
 - New ICD10 code F32.A (depression, unspecified).



- ICD9 code 296.34 (major depressive affective disorder, recurrent episode, specified as with psychotic behavior); the code was inadvertently omitted in previous versions of the code set.
- In 2014, based on review of the codes sets, the SMS working group confirmed that code ICD9 300.4 / ICD10 F34.1 (dysthymia) should be included in this case definition. Dysthymia is a mood disorder associated with chronic depressive symptoms that are not as severe as those found in major depression. The code is included here to be consistent with the DSM-5 categorization of mental health disorders.
- ICD10 F34.0 / ICD9 301.13 (cyclothymic disorder) is not included in the code set. Cyclothymia is a mood disorder associated with emotional ups and downs, not as extreme as those experienced with bipolar I and II disorder; therefore, it is included in the *Bipolar Disorders* case definition.
- Codes ICD9 311 (depressive disorder not elsewhere classified) and ICD10 F32.9 (major depressive disorder, single episode, unspecified) are included in the code set due to an AFHSD interest in maintaining a broad definition of depression. The AFHSD recognizes this is a category that may lack specificity for diagnoses that meet the standard DSM-5 clinical criteria. Seal et al ⁴ includes ICD9 code 311 in the category “other mental health disorders.”
- Codes ICD9 296.25-296.26 / ICD10 F32.4-F32.5 (major depressive disorder, in remission) and codes ICD9 296.30-296.36 / ICD10 F33.0-F33.9 (major depressive disorder, recurrent episode) are included in the code set. Inclusion of these codes may result in overestimation of the incidence of illness in the population by counting some cases for which the onset of illness preceded a person's military service period; on the other hand exclusion of these codes would underestimate the prevalence of illness in the population, (e.g., an individual with two outpatient diagnoses within 180 days, where the latter diagnosis has a fifth digit of 6, would be excluded if these codes were not included).
- 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* ³ and Seal *et al*.⁴ The final code set was selected after a review of the scientific literature and of the relevant codes in the International Classification of Diseases, 9th and 10th Revisions.

Reports

The AFHSD reports on depressive disorders in the following reports:

- Periodic *MSMR* articles.
- Annually: *MSMR* article on the “Absolute and relative morbidity burdens attributable to various illnesses and injuries, U.S. Armed Forces” (see *Comments* section below).
- AFHSD Mental Health Report for the Department of Defense (Office of the Assistant Secretary of Defense for Health Affairs);⁵ this report describes the incidence rates of, and proportions of the population affected by, major depression, bipolar disorder, alcohol dependence, substance dependence and post-traumatic stress disorder. The case definition and code sets used for this report differ slightly from the case definition for depressive disorders documented here.

³ 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.

⁴ 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.

⁵ Armed Forces Health Surveillance Center. Selected mental health disorders among active component members, U.S. Armed Forces, 2007-2010. *Medical Surveillance Monthly Report (MSMR)*. 2010 November; 17(11): 2-5.



Review

Jan 2022	Case definition reviewed and updated by the AFHSD Surveillance Methods and Standards (SMS) working group.
Dec 2018	Case definition reviewed and updated by the Armed Forces Health Surveillance Branch (AFHSB) SMS working group.
July 2014	Case definition reviewed and updated by the AFHSC SMS working group.
July 2012	Case definition reviewed and adopted by AFHSC SMS working group.
Nov 2010	Case definition developed by the AFHSC <i>MSMR</i> staff.

Comments

Burden of Disease Reports:

The AFHSD 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.⁶ In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

The AFHSD 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.⁷

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.

Comprehensive AFHSD Mental Health Reports:

For analyses and reports requiring data on *all* mental disorders, AFHSD 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.

- ICD9 310.2 / ICD10 F07.81 (post-concussion syndrome)
- 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.
- ICD9 317*-319* / ICD10 F70-F79 (mental retardation)
- ICD9 315* / ICD10 F80*-F82*, F88-F89 (specific delays in development)
- ICD9 299* / ICD10 F84* (pervasive developmental disorders)

⁶ 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.

⁷ Armed Forces Health Surveillance Division. Absolute and relative morbidity burdens attributable to various illnesses and injuries, active component, *Medical Surveillance Monthly Report (MSMR)*. May 2021; Vol. 28 (5): 2-9.

