

## DEPRESSIVE DISORDERS

*Includes Major Depression, Dysthymia, and Depressive Disorder Not Elsewhere Classified*

### Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSC) Medical Surveillance Monthly Report (MSMR) staff 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 depressive disorders and other mental health diagnoses that fall within the range of ICD-9-CM codes 290-319 (mental disorders).

### 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: weight loss or gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, loss of interest or pleasure in normally enjoyable activities, diminished ability to think or concentrate, feelings of worthlessness or excessive guilt, and recurrent thoughts of death or suicide. Major depressive disorder manifests as a moderate to severe episode of depression lasting two or more weeks, while dysthymic disorder is characterized by ongoing, chronic depression often lasting for two or more years.<sup>2</sup>

### Case Definition and Incidence Rules

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

- *One hospitalization* with any of the defining diagnoses of depressive disorder (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 any of the defining diagnoses 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 any of the defining diagnoses of a depressive disorder (see ICD9 code list 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 diagnosis of a depressive disorder.

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<sup>1</sup> Armed Forces Health Surveillance Center. Mental Disorders and Mental Health Problems, Active Component, U.S. Armed Forces, January 2000 – December 2009. *Medical Surveillance Monthly Report (MSMR)*. 2010 November; Vol.17 (11): 6- 12.

<sup>2</sup> American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders. Fourth Edition. 1994.



### Case Definition and Incidence Rules (cont.)

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

#### Exclusions:

- None

### Codes

The following ICD-9 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Depressive Disorders	F32 (major depressive disorder, single episode)	296.2 (major depressive disorder, single episode)
	- F32.0 (major depressive disorder, single episode, mild)	- 296.21 (major depressive affective disorder, single episode, mild)
	- F32.1 (major depressive disorder, single episode, moderate)	- 296.22 (major depressive affective disorder, single episode, moderate)
	- F32.2 (major depressive disorder, single episode, severe without psychotic features)	- 296.23 (major depressive affective disorder, single episode, severe, without mention of psychotic behavior)
	- F32.3 (major depressive disorder, single episode, severe with psychotic features)	- 296.24 (major depressive affective disorder, single episode, severe, specified as with psychotic behavior)
	- F32.4 (major depressive disorder, single episode, in partial remission)	- 296.25 (major depressive affective disorder, single episode, in partial or unspecified remission)
	- F32.5 (major depressive disorder, single episode, in full remission)	- 296.26 (major depressive affective disorder, single episode, in full remission)
	- F32.8 (other depressive episodes)	--
	- F32.9 (major depressive disorder, single episode, unspecified)	296.20 (major depressive affective disorder, single episode, unspecified) 311 (depressive disorder, not elsewhere classified)
	F33 (major depressive disorder, recurrent)	296.3 (major depressive disorder recurrent episode)
- F33.0 (major depressive disorder, recurrent, mild)	- 296.31 (major depressive affective disorder, recurrent episode, mild)	

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	- F33.1 (major depressive disorder, recurrent, moderate)	- 296.32 (major depressive affective disorder, recurrent episode, moderate)
	- F33.2 (major depressive disorder, recurrent, severe, without psychotic features)	- 296.33 (major depressive affective disorder, recurrent episode, severe without mention of psychotic behavior)
	- F33.3 (major depressive disorder, recurrent, severe with psychotic symptoms)	- 296.34 (major depressive affective disorder, recurrent episode, specified as with psychotic behavior)
	- F33.4 (major depressive disorder, recurrent, in remission)	--
	- F33.40 (major depressive disorder, recurrent, in remission, unspecified)	- 296.30 (major depressive affective disorder, recurrent episode, unspecified)
	- F33.41 (major depressive disorder, recurrent, in partial remission)	- 296.35 (major depressive affective disorder, recurrent episode, in partial or unspecified remission)
	- F33.42 (major depressive disorder, recurrent, in full remission)	- 296.36 (major depressive affective disorder, recurrent episode, in full remission)
	- F33.8 (other recurrent depressive disorders)	- 296.99 (other specified episodic mood disorder)
	- F33.9 (major depressive disorder, recurrent, unspecified)	- 296.30 (see above)
	F34 (persistent mood [affective] disorders)	--
	- F34.1 (dysthymic disorder)	300.4 (dysthymic disorder)
	- F34.8 (other persistent mood [affective] disorders)	- 296.99 (above)
	- F34.9 (persistent mood [affective] disorder, unspecified)	- 296.99 (above)
	F39 (unspecified mood [affective] disorder)	- 296.90 (unspecified episodic mood disorder)
	--	296.9 (other and 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 AFHSC MSMR staff for a MSMR 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 a depressive disorder would have a second encounter within that interval.

#### *Code Set Determination and Rationale*

- 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.
- ICD9 code 311 (depressive disorder not elsewhere classified) /ICD10 F32.9 (major depressive disorder, single episode, unspecified) is included in the code set due to an AFHSC interest in maintaining a broad definition of depression. AFHSC recognizes this is a category that may lack specificity for diagnoses that meet the standard DSM-IV clinical criteria. Seal *et al*<sup>4</sup> includes ICD9 code 311 in the category “other mental health disorders.”
- ICD9 codes 296.25-296.26/ ICD10 codes F32.4-F32.5 (major depressive disorder, in remission), and ICD-9 codes 296.30-296.36 / ICD10 codes 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.)

#### **Reports**

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AFHSC reports on depressive disorders 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).
- Quarterly: AFHSC Mental Health Report for the Department of Defense (Office of the Assistant Secretary of Defense for Health Affairs);<sup>5</sup> 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.

#### **Review**

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July 2014	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
July 2012	Case definition reviewed and adopted by AFHSC Surveillance Methods and Standards working group.

<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.

<sup>5</sup> 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.



Nov 2010 Case definition developed and reviewed by AFHSC MSMR staff.

## Comments

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*Burden of Disease Reports:* AFHSC 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 ICD-9-CM codes, into 139 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>6</sup> In general, the GBD system groups diagnoses with common pathophysiologic or etiologic bases and/or significant international health policymaking importance.

The AFHSC 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>7</sup>

Because reports on disease burden are based on the total number of medical encounters for a specific condition, a slightly different case definition is used for these analyses. The case definition requires only “one inpatient or outpatient medical encounter with any defining ICD9 codes between 001 and 999” and uses the diagnosis in the *primary* diagnostic position only. An individual is allowed one medical encounter per condition per day.

*Comprehensive AFHSC Mental Health Reports:* For analyses and reports requiring data on *all* mental disorders, AFHSC includes all mental health diagnoses that fall within the range of ICD-9-CM codes 290-319 (mental disorders) with a few exceptions.

- ICD9 code 305.1 (tobacco use disorder) 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 codes 299.xx (pervasive developmental disorders) and ICD9 codes 317.xx -319.xx (mild, other, and unspecified intellectual disabilities) are not included as these conditions do not represent mental health disorders that AFHSC is trying to track with these reports.

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<sup>6</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>7</sup> Armed Forces Health Surveillance Center. Absolute and Relative Morbidity Burdens Attributable to Various Illnesses and Injuries, U.S. Armed Forces, 2011. *Medical Surveillance Monthly Report (MSMR)*. 2012 April; Vol.19 (4): 4- 9.

