

# L.A.

A PUBLICATION OF LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES  
PUBLIC HEALTH

# Health

July 2002

## Depressive Disorders Among Los Angeles County Adults

Depressive disorders affect nearly 10% of the adult population (18.8 million adults) yearly in the United States,<sup>1</sup> and include unipolar major depression, dysthymia (a less severe, longer-lasting form of depression), and bipolar disorders (manic-depressive illness).<sup>2</sup> Unipolar major depression affects more than 50 million people worldwide and is expected to be the second leading cause of premature death and disability by 2020, based on a measure called disability-adjusted life years (DALYs).<sup>3</sup> DALYs measure years of healthy life lost to premature death and disability. In 1998, unipolar major depression was the third leading cause of premature death and disability in Los Angeles County based on DALYs.<sup>4</sup>

Depressive disorders have profound affects on individuals, families, and society. They impair social and occupational functioning, resulting in lost productivity at the workplace, school, and at home.<sup>5,6</sup> The annual costs of depressive disorders in the United States are extremely high, comparable to that of heart disease.<sup>7</sup> Depressive disorders greatly increase the risk for suicide, and often co-occur with other medical illnesses such as heart disease and diabetes.<sup>8</sup>



The Los Angeles County Health Survey is a periodic, population-based telephone survey that collects information on sociodemographic characteristics, health status, health behaviors, and access to health services among adults and children in the county. The most recent survey was conducted for the Department of Health Services (DHS) between September 1999 and April 2000 by Field Research Corporation.

1. Robins, L.N., & Regier, D.A. (Eds.). *Psychiatric Disorders in America, The Epidemiologic Catchment Area Study, 1990*. New York: The Free Press.

2. *In the U.S., mental disorders are diagnosed based on the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)*.

3. Murray, C.J.L., Lopez, A.D. (Eds.). *The global burden of disease and injury series, volume 1: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard School of Public Health on behalf of the World Health Organization and the World Bank, Harvard University Press, 1996.

4. *The Burden of Disease in Los Angeles County: A Study of the patterns of Morbidity and Mortality in the County Population*. The Los Angeles County Department of Health Services and the UCLA Center for Health Policy Research (Unpublished 1998 data).

5. Wells, K.B., & Sherbourne, C.D. (1999). Functioning and utility for current health of patients with depression or chronic medical conditions in managed, primary care practices. *Arch Gen Psychiatry*, 56, 897-904.

6. Hirschfeld, R.M., Montgomery, S.A., Keller, M.B., et al. (2000). Social functioning in depression: a review. *Journal of Clinical Psychiatry*, 61, 268-275.

7. Greenberg, P.E., Stiglin, L.E., Finkelstein, S.N., & Berndt, E.R. (1993). Depression: A neglected major illness. *Journal of Clinical Psychiatry*, 54, 419-424.

8. Depression Guideline Panel. *Depression in primary care: volumes 1. Detection and diagnosis. Clinical practice guideline, number 5. AHCPR Publication No. 93-0550*. Rockville, MD: Agency for Health Care Policy and Research, 1993.

While effective treatments and interventions are available, depressive disorders are widely under-recognized and under-treated.<sup>9,10</sup>

The 1999–2000 survey collected information on a random sample of 8,354 adults and 6,016 children. Interviews were offered in English, Spanish, Cantonese, Mandarin, Korean, and Vietnamese. Among households contacted and eligible for participation, the response rate was 55%. To adjust for differential rates of participation, results were weighted by selected demographic variables using 1998 census projections for the Los Angeles County population.

The findings in this report are subject to several limitations. In any survey that includes sampling, some degree of error (referred to as “sampling error”) is introduced by chance alone, even when the sample is chosen randomly. In the present survey, if 50% of the overall sample of adults answered “yes” to a specific question, the sampling error would be plus or minus 1.2 percentage points at the 95% confidence level. This means that if all adults in the population were asked the above question, there is a 95% chance that the result would be between 48.8% and 51.2%. Because the sample sizes of subgroups are smaller than the overall sample, results for these subgroups have larger sampling errors and wider confidence levels. For all results presented in this report, confidence levels are available.

There are a number of other possible sources of error in any survey. For example, questions may be misunderstood, respondents may not provide accurate information, and errors may occur in the processing of data. In addition, surveys administered by telephone miss those who are homeless and others without telephone service. The survey professionals working on this study made every effort to minimize these sources of error.

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**Table 1. Percentage of Los Angeles County Adults (18 and Older) Ever Diagnosed with a Depressive Disorder, 1999**

	Percentage	(±95% CI)	Estimate
Los Angeles County	9%	±1	623,000
<b>Gender</b>			
Male	7%	±1	230,000
Female	11%	±1	393,000
<b>Age Group</b>			
18 to 24	7%	±1	57,000
25 to 29	7%	±2	53,000
30 to 39	7%	±1	128,000
40 to 49	11%	±2	160,000
50 to 59	13%	±2	120,000
60 to 64	9%	±3	28,000
65 or over	8%	±2	78,000
<b>Race/Ethnicity</b>			
Latino	7%	±1	188,000
White	12%	±1	326,000
African-American	9%	±2	65,000
Asian/Pacific Islander	4%*	±1	39,000
<b>Federal Poverty Level<sup>1</sup></b>			
Less than 100% FPL	9%	±2	112,000
100% to < 200% FPL	11%	±1	176,000
200% to < 300% FPL	9%	±1	129,000
300% FPL or above	8%	±1	207,000
<b>Employment Status</b>			
Employed	7%	±1	302,000
Unemployed	13%	±4	28,000
Not in workforce <sup>2</sup>	12%	±1	273,000
<b>Service Planning Area</b>			
Antelope Valley	10%	±3	22,000
San Fernando	10%	±1	143,000
San Gabriel	7%	±1	98,000
Metro	10%	±2	79,000
West	9%	±2	46,000
South	7%	±2	43,000
East	9%	±2	82,000
South Bay	10%	±2	111,000

\* Estimate based on small sample size (n<30) and should be viewed with caution.

1. Poverty status is based on the 1999 Federal Poverty Level (FPL). In 1999, the 100% FPL for a family of two adults and two dependents was 16,895 per year, the 200% FPL was 33,790 per year, and the 300% FPL was 50,685 per year.

2. Students, retired persons, homemakers, and those unable to work.

Source: Los Angeles County Health Survey

9. Hirschfeld, R.M.A., et al. (1997). The national depressive and manic-depressive association consensus statement on the undertreatment of depression. *JAMA*, 277, 333-340.

10. U.S. Department of Health and Human Services (1999). *Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, CMHS, and NIMH.

This report presents findings from the 1999-2000 Los Angeles County Health Survey (LACHS), a population-based telephone survey of 8,354 randomly selected adults (18 years and older) in Los Angeles County. Respondents were asked if a doctor or other health professional had ever told them that they had depression or some other depressive disorder, such as bipolar disorder or manic depression. Respondents who had ever been diagnosed with a depressive disorder were asked if they were currently taking medication, and if they were under a doctor's care for the disorder. Additionally, all respondents were asked how often they felt sad, blue or depressed in the past month.

### **Prevalence of Depressive Disorders**

- Of the adult population (age 18 and over) in Los Angeles County, 9% or an estimated 623,000 persons have been diagnosed with a depressive disorder (Table 1).
- The percentage of adults ever diagnosed with a depressive disorder was higher among women (11%) than men (7%).
- The percentage of adults ever diagnosed with a depressive disorder was highest in middle-aged adults: 40 to 49 years of age (11%) and 50 to 59 years of age (13%).
- The prevalence of diagnosed depressive disorders was highest in Whites (12%), followed by African-Americans (9%), Latinos (7%), and Asians/Pacific Islanders (4%<sup>11</sup>).
- The percentage of adults ever diagnosed with a depressive disorder did not vary significantly by household income.
- The percentage of adults ever diagnosed with a depressive disorder was higher among those unemployed (13%) or not in the workforce (12%) than among employed adults (7%).
- The percentage of adults ever diagnosed with a depressive disorder was higher among those who were widowed (12%), divorced (15%), separated (12%), or never married (10%) than those who were married (6%) or not married but living together (6%).



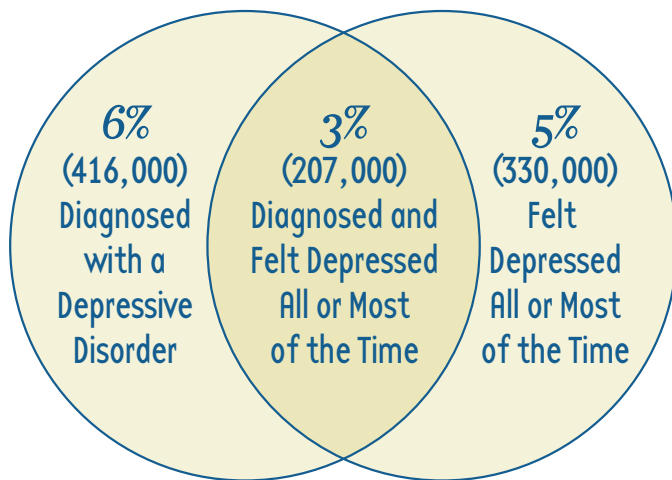
*11. Estimate based on small sample size (n<30) and should be viewed with caution.*

### Treatment for Depressive Disorders

Among adults who had been diagnosed with a depressive disorder:

- 54% reported that they were currently receiving treatment (either under a doctor's care and/or taking medication) for their disorder.
- A higher percentage of Whites (60%), African-Americans (56%), and Asians/Pacific Islanders (55%<sup>11</sup>) than Latinos (43%) reported currently receiving treatment for their disorders.
- A higher percentage of adults over 40 years of age (62%) than adults 18 to 39 years of age (42%) reported currently receiving treatment for their disorders.
- The percentage of adults receiving treatment did not vary significantly by household income.

Figure 1. *Estimated Number of Adults (18 and Older) Ever Diagnosed with a Depressive Disorder and/or Felt Depressed All or Most of the Time in the Past Month, Los Angeles County, 1999*



Source: Los Angeles County Health Survey

### Self-Perceived Depression

- 8% (or an estimated 537,000) of all adults reported feeling sad, blue or depressed all or most of the time in the past month.
- In the past month, 9% of women reported feeling depressed all or most of the time, compared to 6% of men.
- 10% of African-Americans and 9% of Latinos reported feeling sad, blue or depressed all or most of the time in the past month, as compared to 7% of Whites and 5% of Asians/Pacific Islanders.
- Figure 1 shows the overlap between those who reported currently feeling depressed and the estimated 9% (or 623,000) of adults who reported having ever been diagnosed with a depressive disorder.
- Among adults who reported feeling depressed all or most of the time in the past month, 61% reported not ever having been diagnosed with a depressive disorder.
- Among adults previously diagnosed with a depressive disorder, 33% reported feeling depressed all or most of the time in the past month.

### Potential Barriers to Care

- Among adults who felt depressed all or most of the time in the past month and were ever diagnosed with a depressive disorder, 29% reported not having health insurance, and 38% reported not getting mental health care or counseling in the past year because they could not afford it (Figure 2).

→ Among adults who felt depressed all or most of the time in the past month but had not previously been diagnosed with a depressive disorder, 42% had no health insurance, and 23% reported not getting mental health care in the past year because they could not afford it (Figure 2).

### Depressive Disorders and Selected Health Conditions

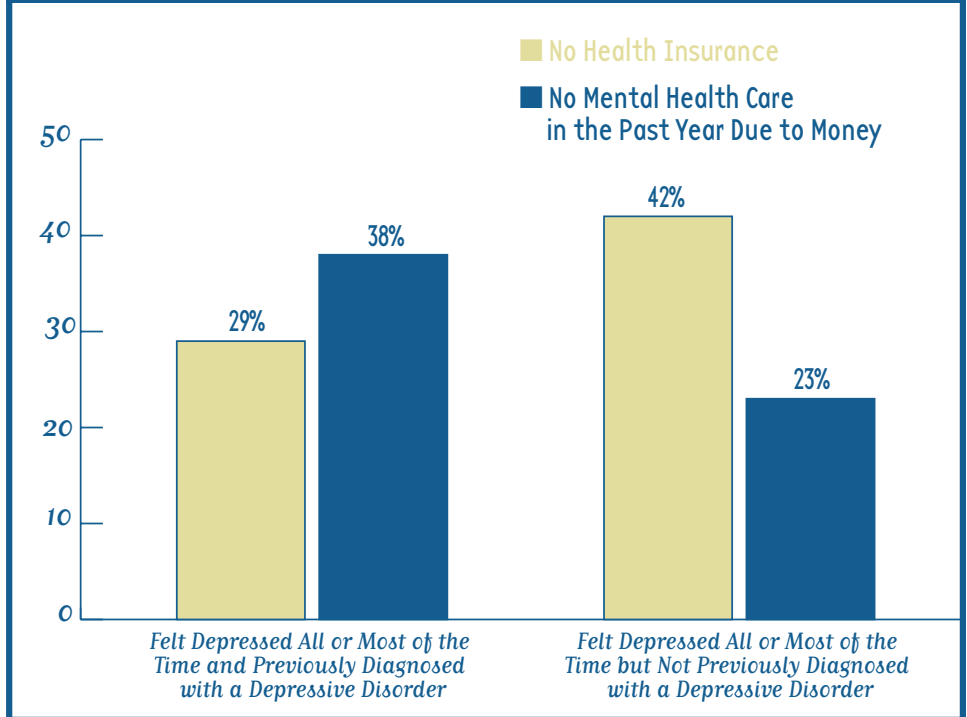
Several health conditions were examined in relation to depressive disorders, resulting in the following notable findings:

→ The rates of many chronic health conditions (for example, asthma and other chronic respiratory conditions, heart disease, arthritis, high cholesterol, high blood pressure, and diabetes) were higher among adults previously diagnosed with a depressive disorder than those not diagnosed with a depressive disorder (Figure 3).

→ 28% of adults who were extremely obese (BMI $\geq$ 40)<sup>12</sup> had been diagnosed with a depressive disorder, as compared with 12% of mildly/moderately obese adults (BMI=30 to 39.9), 9% of overweight adults (BMI=25 to 29.9), 7% of normal weight adults (BMI=18.5 to 24.9), and 12%<sup>11</sup> of underweight adults (BMI<18.5).

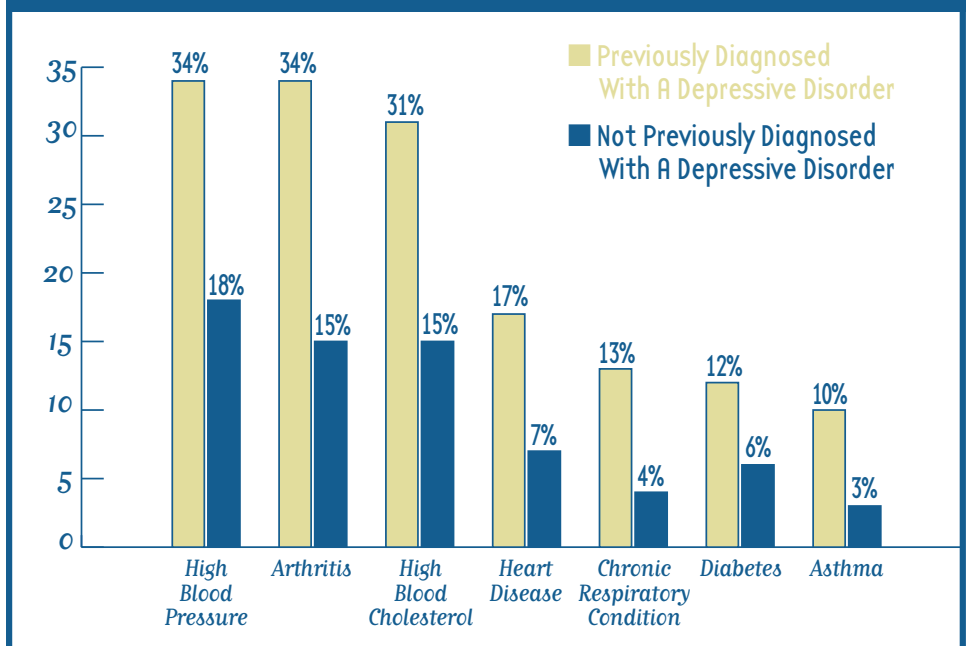
→ The average number of unhealthy days (due to poor physical and mental health) in the past month was about three times higher among those previously diagnosed with a depressive disorder (16.6 days) compared to those not diagnosed with a depressive disorder (5.4 days).

**Figure 2. Potential Barriers to Care Among Adults (18 and Older) Who Felt Depressed All or Most of the Time in the Past Month, Los Angeles County, 1999**



Source: Los Angeles County Health Survey

**Figure 3. Prevalence of Chronic Health Conditions Among Adults (18 and Older) With and Without a Past Diagnosis of a Depressive Disorder, Los Angeles County, 1999**



Source: Los Angeles County Health Survey

12. Body Mass Index (BMI) is calculated using the respondent's self-reported weight and height.

## Discussion

Results from the 1999-2000 Los Angeles County Health Survey indicate that 9% of adults in the county were ever diagnosed with a depressive disorder, as compared to almost 10%<sup>1</sup> for the nation. Additionally, 8% of adults reported feeling sad, blue or depressed all or most of the time in the past month. Less than half of this group had ever been diagnosed with a depressive disorder, suggesting that the prevalence of depressive disorders may be underestimated, and that many may not be adequately screened. The rates of depressive disorders across gender were also comparable between Los Angeles County adults and nationally; rates were higher among women (11% locally and 12% nationally<sup>1</sup>) than men (7% both locally and nationally<sup>1</sup>). The observed rates of depressive disorders varied across racial/ethnic groups; however, this result may reflect under-diagnosis in some groups with less access to services, especially in light of the higher rates of self-perceived depression reported by African-Americans and Latinos. Lastly, the rates of depressive disorders were also higher among middle-aged and older adults. Depression has been found to be a significant predictor of suicide, especially in older adults.<sup>13</sup> In 1999, 20% of all suicide deaths in Los Angeles County were to persons aged 65 years and older.<sup>14</sup>

Depression has been found to co-occur with other medical illnesses,<sup>8</sup> and to predict premature mortality. Data from our survey indicate that those previously diagnosed with a depressive disorder were more likely to have also been diagnosed with other chronic health conditions including asthma and other chronic respiratory conditions, heart disease, arthritis, high blood cholesterol, high blood pressure, and diabetes. The treatment of patients with chronic conditions presents health care providers with a key opportunity to screen and assess for depression and other depressive disorders.

Our survey found that the average number of unhealthy days (due to poor physical and mental health) in the past month was about three times higher among persons ever diagnosed with a depressive disorder. The resulting loss in productivity in areas of work and school can be significant, and further emphasizes the important relationship between depressive disorders and risk factors for illness and reduced quality of life.

The results also indicate that almost half of the adults who had been diagnosed with a depressive disorder were not receiving treatment (either currently taking medication or under a doctor's care). Potential barriers to treatment include lack of health insurance (or insurance that doesn't cover mental health services) and not being able to afford mental health care or counseling. Our findings highlight the role that these barriers may play, especially among adults who reported feeling sad, blue or depressed all or most of the time (with or without a previous diagnosis). These individuals reported lower rates of health insurance and higher rates of not being able to afford mental health care.

More effective community- and policy-based strategies need to be developed to address financial and other barriers that discourage the seeking of care for

13. Conwell, Y. and Brent, D. (1995). *Suicide and Aging I: Patterns of Psychiatric Diagnosis*. *International Psychogeriatrics*, 7(2), 149-164.

14. 1999 Death Statmaster File, State of California Department of Health Services, Center for Health Statistics. Prepared/tabulated by LAC DHS Data Collection and Analysis Unit.

depressive disorders. Establishing better linkages between medical and mental health services and educating primary care doctors on depression screening may enable more adults to be effectively screened for depressive disorders in primary care settings. This is critical because of the availability of effective treatments for depressive disorders. Antidepressant medications have been found to be clinically effective across the full range of severity of major depressive disorders.<sup>15</sup> Additionally, specific forms of psychotherapy have been found to be as effective as antidepressants for mild to moderate depression.<sup>16</sup>

The survey findings are subject to several limitations. First, given the personal nature of the questions, the prevalence of depressive disorders may be underestimated. Respondents may have elected not to disclose information about their mental health status. Second, the survey was limited to those living in households with telephones and to persons able to complete a lengthy telephone interview. Thus, important groups that may be at increased risk for depressive disorders (e.g., persons with severe mental illness, persons living in institutional settings, and homeless or incarcerated persons) are not represented in the results.

In conclusion, the results indicate that many adults in Los Angeles County suffer from depressive disorders and many more may have depression that remains undiagnosed. Among those in the county previously diagnosed with a depressive disorder, many report feeling depressed all or most of the time in the past month, suggesting that they are not receiving adequate treatment. Efforts are needed to increase screening for and treatment of depressive disorders in primary health care settings,<sup>17</sup> and to facilitate linkages with mental health and social support services when indicated.

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#### Acknowledgements

*LA Health is a publication of the Office of Health Assessment and Epidemiology, Los Angeles County Department of Health Services, Public Health.*

*Series Editors: Paul Simon, MD, MPH; Cheryl Wold, MPH; Jonathan Fielding, MD, MPH; and Anna Long, PhD, MPH.*

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*Special thanks to Kathy Styc of the California Department of Mental Health and Roderick Shaner, MD of the Los Angeles County Department of Mental Health for their editorial assistance.*

*Funding for the survey was provided by the Los Angeles County Department of Health Services, the California Department of Health Services, the Los Angeles County Medicaid Demonstration Project, and the Los Angeles County Department of Public Social Services.*

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15. American Psychiatric Association (2000). *Practice guideline for the treatment of patients with major depressive disorder (revision)*. *American Journal of Psychiatry*, 157, 1-45.

16. Depression Guideline Panel. *Depression in primary care: volume 2. Treatment of major depression. Clinical practice guideline, number 5*. AHCPR Publication No. 93-0551. Rockville, MD: Agency for Health Care Policy and Research, 1993.

17. Olfson, M., Marcus, S.C., Druss, B., Elinson, L., Tanielian, T., & Pincus, H.A. (2002). *National trends in the outpatient treatment of depression*. *JAMA*, 287(2), 203-209.

18. American Psychiatric Association: *Diagnostic and statistical manual of mental disorders, Fourth Edition*. Washington, DC: American Psychiatric Association, 1994.

## Symptoms of Depression (DSM-IV)<sup>18</sup>

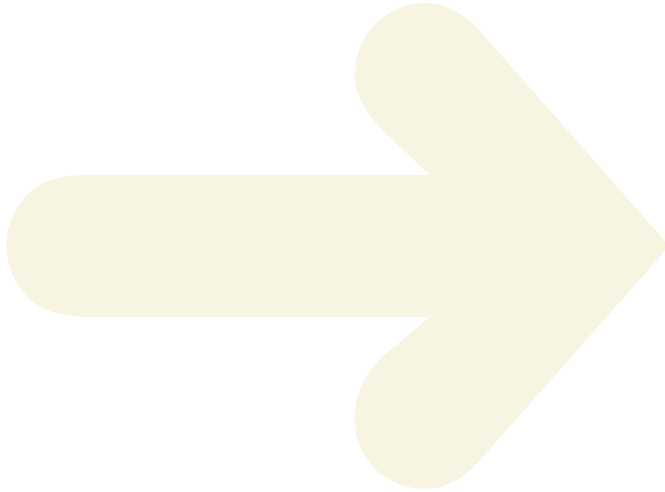
- Depressed mood (e.g., feeling sad or empty; appearing tearful) most of the day. In children and adolescents, it can be irritable mood.
- Loss of interest or pleasure in all, or almost all, activities most of the day.
- Significant weight loss or weight gain, or decrease or increase in appetite.
- Insomnia or hypersomnia (oversleeping).
- Psychomotor agitation or retardation.
- Fatigue or loss of energy.
- Feelings of worthlessness, or excessive or inappropriate guilt.
- Diminished ability to think or concentrate, or indecisiveness.
- Recurrent thoughts of death, recurrent suicide ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.



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# Summary:

## LOS ANGELES COUNTY HEALTH SURVEY

*Issue 11*

- 9% of the adult population (age 18 and over) in Los Angeles County, or an estimated 623,000 persons, have ever been diagnosed with a depressive disorder.
- The percentage of adults ever diagnosed with depressive disorder was higher among women (11%) than men (7%).
- 46% of adults who were ever diagnosed with a depressive disorder reported neither currently taking medication nor being under a doctor's care for their depressive disorder.
- 8% of all adults reported feeling sad, blue or depressed all or most of the time in the past month.
- The prevalence of chronic health conditions was higher among adults previously diagnosed with a depressive disorder than those never diagnosed.
- Potential barriers to mental health care include lack of health insurance and not being able to afford mental health care counseling.
- The number of unhealthy days (due to poor physical and mental health) in the past month was about three times higher among persons previously diagnosed with a depressive disorder (16.6 days) compared to persons not diagnosed with a depressive disorder (5.4 days).