

Hypertension Prevalence, Treatment, and Control Among Adults: Los Angeles County and the United States, 2015–2018

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The National Health and Nutrition Examination Survey, conducted by the National Center for Health Statistics, is a multistage probability sample of the civilian noninstitutionalized U.S. population. Because of the size and population density of Los Angeles (LA) County, California, and the large Hispanic populations within, a primary sampling unit in LA County was chosen with certainty in each 2-year National Health and Nutrition Examination Survey cycle (1), allowing the possibility of estimates of health conditions for LA County (2,3). During 2007–2014, the age-adjusted prevalence of hypertension was 23.1% in LA County and 29.6% in the United States. Among those with hypertension, the prevalence of controlled hypertension in LA County and the United States was 48.3% and 51.8%, respectively (3).

This report presents the percentage of adults in both LA County and the United States during 2015–2018 with stage 1 and 2 hypertension defined using the 2017 blood pressure cut points (4) (systolic blood pressure greater than or equal to 130 mmHg or diastolic blood pressure greater than or equal to 80 mmHg), or currently taking blood pressure medication. Estimates of stage 2 hypertension only, (greater than or equal to 140/90 mmHg) or currently taking blood pressure medication, are also presented. Among those with stage 2 hypertension, treatment (currently taking blood pressure medication) and control (systolic blood pressure less than 140 mmHg and diastolic blood pressure less than 90 mmHg) of hypertension are presented. Because the 2017 lower cut points to define hypertension (greater than or equal to 130/80 mmHg) were not in use during the entire 2015–2018 study period, treatment and control are not presented.

The unadjusted and age-adjusted prevalence of hypertension, treatment, and control among adults ages 18 and older in LA County and the United States during 2015–2018 are shown overall and by sex in the [Table](#). The prevalence of hypertension (stage 1 and 2) was 44.2% in LA County and 47.3% in the United States. Alternately, the prevalence of stage 2 hypertension was 30.4% in LA County and 33.0% in the United States. Among those with stage 2 hypertension, 68.4% of adults in LA County and 71.2% of U.S. adults received treatment. The prevalence of controlled hypertension in those with stage 2 hypertension in LA County and the United States was 36.5% and 46.1%, respectively.



Data source and methods

National Health and Nutrition Examination Survey participants were asked to complete a household interview followed by a health examination in a mobile examination center. During the interview, participants were asked if they had ever been told by a doctor or health professional that they had hypertension or high blood pressure. If the participant answered yes, they were asked if they were prescribed medication for hypertension or high blood pressure and if they are now taking the prescribed medicine. In the mobile examination center, blood pressure was measured by trained physicians using a standard protocol (5). All blood pressure readings were obtained during a single visit. An average of up to three systolic and diastolic blood pressure readings were used.

Examination sample weights were applied. Sample weights for LA County were created to be representative of the population of LA County for 2015–2018 and are available through the National Center for Health Statistics research data center at: <https://www.cdc.gov/rdc/>. Korn–Graubard confidence intervals were calculated and the reliability of estimates were assessed using National Center for Health Statistics data presentation standards for proportions (6).

References

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Suggested citation

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Table. Prevalence of hypertension and treatment and control of hypertension among adults ages 18 and older, overall and by sex: Los Angeles County and United States, 2015–2018

Characteristic	Sample size	Unadjusted percent (95% confidence interval)			Age-adjusted percent ¹ (95% confidence interval)		
		Total	Female	Male	Total	Female	Male
Hypertension stage 1 and stage 2 (SBP \geq 130 mm Hg or DBP \geq 80 mm Hg or taking blood pressure medication) ^{2,3} :							
Los Angeles County	472	44.2 (36.1, 52.6)	38.4 (29.1, 48.4)	50.4 (41.2, 59.6)	43.3 (36.8, 50.0)	36.8 (29.2, 45.0)	49.9 (40.6, 59.2)
United States	10,703	47.3 (45.6, 49.0)	44.2 (42.2, 46.2)	50.6 (48.3, 52.9)	44.5 (42.6, 46.5)	39.7 (37.5, 42.0)	49.2 (46.6, 51.7)
Hypertension stage 2 (SBP \geq 140 mm Hg or DBP \geq 90 mm Hg or taking blood pressure medication) ⁴ :							
Los Angeles County	472	30.4 (22.2, 39.6)	28.7 (18.9, 40.3)	32.2 (24.1, 41.2)	29.5 (22.7, 37.1)	27.3 (17.9, 38.5)	31.4 (23.0, 40.6)
United States	10,703	33.0 (30.9, 35.0)	32.7 (30.6, 34.8)	33.2 (30.7, 35.8)	29.9 (27.9, 31.9)	28.1 (26.1, 30.1)	31.5 (28.9, 34.2)
Treatment ⁵ :							
Los Angeles County	183	68.4 (55.4, 79.6)	74.6 (57.9, 87.2)	*62.4 (46.5, 76.6)	67.2 (57.5, 75.9)	67.5 (53.4, 79.6)	61.8 (49.4, 73.1)
United States	4,081	71.2 (68.9, 73.4)	75.6 (72.1, 78.8)	66.7 (63.1, 70.1)	70.3 (68.1, 72.5)	74.3 (70.9, 77.5)	67.7 (64.3, 70.9)
Control ⁶ :							
Los Angeles County	183	36.5 (24.2, 50.2)	*34.3 (18.9, 52.6)	38.7 (26.4, 52.1)	34.6 (23.4, 47.3)	*31.5 (17.8, 48.2)	39.4 (27.8, 51.9)
United States	4,088	46.1 (43.4, 48.8)	47.5 (44.2, 50.9)	44.6 (40.7, 48.5)	45.8 (43.2, 48.5)	47.9 (44.6, 51.3)	45.3 (41.7, 48.9)

* Estimate does not meet National Center for Health Statistics standards of reliability.

¹Age-adjusted prevalence estimates of hypertension were age-adjusted by the direct method to the projected 2000 U.S. Census population using age groups 18–39, 40–59, and 60 years and older. For more information, see <https://www.cdc.gov/nchs/data/statn/statn20.pdf>. Age-adjusted estimates of treatment and control of hypertension among those with hypertension were age-adjusted by the direct method to the subpopulation of hypertensives in 2007–2008 using age groups 18–39, 40–59, and 60 years and older (0.0979, 0.3975, and 0.5046, respectively). For more information, see: <https://pubmed.ncbi.nlm.nih.gov/22550130/>.

²Based on the 2017 American College of Cardiology/American Heart Association Task Force clinical practice guidelines, hypertension (stage 1 and 2) was defined as having SBP greater than or equal to 130 mmHg or DBP greater than or equal to 80 mmHg, or self-report of taking medication to lower blood pressure.

³Because the 2017 lower cut points to define hypertension (greater than or equal to 130/80 mmHg) were not in use during the entire 2015–2018 study period, treatment and control are not presented.

⁴Based on the 2017 American College of Cardiology/American Heart Association Task Force clinical practice guidelines, hypertension (stage 2) was defined as having SBP greater than or equal to 140 mmHg or DBP greater than or equal to 90 mmHg (consistent with the definition used in the previous JNC-7 guidelines; see <https://pubmed.ncbi.nlm.nih.gov/14656957/> for more information) or self-report of taking medication to lower blood pressure.

⁵Among those with stage 2 hypertension, treatment was defined based on affirmative responses to the following questions: “Because of your high blood pressure/hypertension, have you ever been told to take prescribed medicine?” and “Are you now following this advice to take prescribed medicine?”

⁶Among those with stage 2 hypertension, control was defined as having a mean SBP less than 140 mmHg and a mean DBP less than 90 mmHg.

NOTES: Sample size is unweighted. Percentages are weighted. Pregnant women are excluded. DBP is diastolic blood pressure. SBP is systolic blood pressure.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey, 2015–2018.