POLICY brief

# Over Four Million California Adults Age 45 and Older Have High Blood Pressure

CAROLYN A. MENDEZ-LUCK, HONGJIAN YU, YING-YING MENG, MONA JHAWAR, STEVEN P. WALLACE

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Nearly 40% of California adults age 45 and older reported being diagnosed with high blood pressure, according to the 2001 California Health Interview Survey (CHIS 2001). High blood pressure, also called hypertension, is known as "the silent killer" because it often has no symptoms. If left unchecked and untreated, uncontrolled high blood pressure can lead to heart failure, kidney failure, heart attack and stroke. This policy brief provides data of diagnosed high blood pressure rates for California legislative districts and counties for adults age 45 and older. The first of its kind sub-county data in this policy brief are estimates created by a small-area methodology, based on rates from CHIS 2001 that are applied to population data from the 2000 Census and 2002 California Department of Finance.

## High Blood Pressure in State Legislative Districts

In 2002, over four million California adults age 45 and older had high blood pressure that was diagnosed by a doctor at some time in their lives. Hypertension affects from 31 to 46% of people age 45 and over in California's 80 Assembly districts and from 32 to 44% in the state's 40 Senate districts. The majority of legislative districts had prevalence rates similar to or worse than the already high statewide average, and California adults with high blood pressure reside in all areas of the state. However, the legislative districts with the highest rates of diagnosed high blood pressure among adults 45 and older were located primarily in parts of Los Angeles County, and in Fresno and Tulare counties for Assembly districts (Exhibit 1) and in Fresno, Kern, Kings and Tulare counties for Senate districts (Exhibit 2). On the other hand, high blood pressure rates below the statewide average for adults were found in less than one-fifth of all state Assembly districts, which are primarily located in coastal areas and along the western interior regions of the state.

## Rates for Congressional Districts

The 31 to 45% variation in hypertension rates among adults age 45 and older for Congressional districts (Exhibit 3) is similar to our findings on state legislative districts. The majority of California's 58 Congressional districts had prevalence rates similar to or worse than the already high statewide average. Since Congressional districts cover larger geographic areas and represent bigger populations than either Assembly or Senate districts, the Congressional districts with higher rates of diagnosed hypertension among the adult 45 and older population include parts of Alameda, Madera, Merced, Riverside and San Bernardino counties, in addition to the counties already mentioned for Assembly and Senate districts. Lower hypertension rates are also more broadly distributed across the state. A little over one-fifth of all Congressional districts have rates lower than the statewide average, and the districts are located in the same counties as those mentioned for state legislative districts, as well as Solano County.

## The Prevalence Rates of Diagnosed Hypertension Among Adults Age 45 and Older in California Counties

The rates of diagnosed hypertension ranged from 27 to 47% for California counties (Exhibit 4). Imperial, Lake/Mendocino and Merced counties had the highest rates of high blood pressure, where almost one in every two adults age 45 or older had been diagnosed with high blood pressure at some time in their lives. Other counties that had notably high rates of hypertension among this age group were located primarily in Tulare, Madera, Fresno and Solano counties.

## Los Angeles Service Planning Areas

In 2002, over one million adults age 45 and older in Los Angeles County had diagnosed high blood pressure at some time in their lives (Exhibit 4).

***Exhibit 1: Hypertension Prevalence Rates by Assembly District, Age 45 and Older***
Source: 2001 California Health Interview Survey, 2000-2002 Current Population Surveys, and the 2000 Census.

## *Assembly Districts*

| CALIFORNIA RESIDENTS 45+ DIAGNOSED WITH HYPERTENSION | | | |
|---|---|---|---|
| | Rate* | 95% Range** | County Location of Assembly District |
| CALIFORNIA | 38% | (37-39) | |
| District 01 | 42% | (39-44) | Del Norte, Humboldt, Lake, Mendocino, Sonoma, Trinity |
| District 02 | 40% | (38-42) | Butte, Colusa, Glenn, Modoc, Shasta, Siskiyou, Sutter, Tehama, Yolo |
| District 03 | 38% | (35-40) | Butte, Lassen, Nevada, Placer, Plumas, Sierra, Yuba |
| District 04 | 38% | (35-41) | Alpine, El Dorado, Placer, Sacramento |
| District 05 | 39% | (35-42) | Placer, Sacramento |
| District 06 | 31% | (27-34) | Marin, Sonoma |
| District 07 | 41% | (38-44) | Napa, Solano, Sonoma |
| District 08 | 39% | (37-42) | Solano, Yolo |
| District 09 | 42% | (38-46) | Sacramento |
| District 10 | 38% | (36-41) | Amador, El Dorado, Sacramento, San Joaquin |
| District 11 | 35% | (31-38) | Contra Costa |
| District 12 | 39% | (36-42) | San Francisco, San Mateo |
| District 13 | 38% | (35-42) | San Francisco |
| District 14 | 34% | (32-37) | Alameda, Contra Costa |
| District 15 | 33% | (30-35) | Alameda, Contra Costa, Sacramento, San Joaquin |
| District 16 | 44% | (40-48) | Alameda |
| District 17 | 44% | (41-48) | Merced, San Joaquin, Stanislaus |
| District 18 | 42% | (38-46) | Alameda |
| District 19 | 39% | (35-43) | San Mateo |
| District 20 | 37% | (34-40) | Alameda, Santa Clara |
| District 21 | 35% | (32-37) | San Mateo, Santa Clara |
| District 22 | 34% | (31-37) | Santa Clara |
| District 23 | 38% | (34-41) | Santa Clara |
| District 24 | 37% | (34-40) | Santa Clara |
| District 25 | 39% | (36-42) | Calaveras, Madera, Mariposa, Mono, Stanislaus, Tuolumne |
| District 26 | 41% | (38-44) | San Joaquin, Stanislaus |
| District 27 | 34% | (32-37) | Monterey, Santa Clara, Santa Cruz |
| District 28 | 37% | (34-40) | Monterey, San Benito, Santa Clara, Santa Cruz |
| District 29 | 43% | (40-47) | Fresno, Madera, Tulare |
| District 30 | 42% | (39-44) | Fresno, Kern, Kings, Tulare |
| District 31 | 46% | (42-49) | Fresno, Tulare |
| District 32 | 41% | (37-45) | Kern, San Bernardino |
| District 33 | 38% | (35-41) | San Luis Obispo, Santa Barbara |
| District 34 | 45% | (41-48) | Inyo, Kern, San Bernardino, Tulare |
| District 35 | 36% | (33-39) | Santa Barbara, Ventura |
| District 36 | 45% | (40-49) | Los Angeles, San Bernardino |
| District 37 | 36% | (32-39) | Los Angeles, Ventura |
| District 38 | 36% | (33-38) | Los Angeles, Ventura |
| District 39 | 36% | (33-39) | Los Angeles |
| District 40 | 36% | (34-39) | Los Angeles |

* The numbers presented here are the midpoint of the "95% range."

** The "95% range" (commonly called a confidence interval) provides a more reliable estimate of the hypertension prevalence rate for persons in the population group.

*(Continued)*

The rates of high blood pressure ranged from 30 to 48% in Los Angeles Service Planning Areas (LA SPAs). Half of the LA SPAs were at or above the statewide average, with the highest rate in LA SPA South that includes South Los Angeles and the cities of Compton, Lynwood and Paramount. However, the numbers of adults with diagnosed high blood pressure in 2002 were striking even in LA SPAs with lower rates than the statewide average. For example, over 400,000 adults age 45 and older in the San Fernando and San Gabriel Valleys combined had diagnosed high blood pressure at some time in their lives.

| CALIFORNIA RESIDENTS 45+ DIAGNOSED WITH HYPERTENSION | | | |
|---|---|---|---|
| | Rate* | 95% Range** | County Location of Assembly District |
| CALIFORNIA | 38% | (37-39) | |
| District 41 | 32% | (30-34) | Los Angeles, Ventura |
| District 42 | 32% | (30-34) | Los Angeles |
| District 43 | 36% | (33-38) | Los Angeles |
| District 44 | 36% | (34-38) | Los Angeles |
| District 45 | 35% | (31-39) | Los Angeles |
| District 46 | 37% | (34-40) | Los Angeles |
| District 47 | 41% | (39-44) | Los Angeles |
| District 48 | 45% | (42-48) | Los Angeles |
| District 49 | 37% | (34-40) | Los Angeles |
| District 50 | 37% | (33-40) | Los Angeles |
| District 51 | 43% | (40-45) | Los Angeles |
| District 52 | 46% | (42-50) | Los Angeles |
| District 53 | 33% | (30-35) | Los Angeles |
| District 54 | 36% | (34-39) | Los Angeles |
| District 55 | 40% | (38-43) | Los Angeles |
| District 56 | 38% | (35-41) | Los Angeles, Orange |
| District 57 | 37% | (34-40) | Los Angeles |
| District 58 | 39% | (36-42) | Los Angeles |
| District 59 | 39% | (37-42) | Los Angeles, San Bernardino |
| District 60 | 35% | (33-36) | Los Angeles, Orange, San Bernardino |
| District 61 | 39% | (37-42) | Los Angeles, San Bernardino |
| District 62 | 43% | (39-46) | San Bernardino |
| District 63 | 40% | (36-43) | Riverside, San Diego |
| District 64 | 39% | (36-43) | Orange |
| District 65 | 45% | (42-48) | Orange |
| District 66 | 38% | (36-41) | Orange |
| District 67 | 36% | (33-38) | Orange |
| District 68 | 36% | (33-39) | Orange |
| District 69 | 34% | (30-37) | Orange |
| District 70 | 33% | (30-35) | Orange |
| District 71 | 34% | (32-37) | Orange, Riverside |
| District 72 | 36% | (33-38) | Orange |
| District 73 | 36% | (34-38) | Orange, San Diego |
| District 74 | 36% | (33-38) | San Diego |
| District 75 | 33% | (30-35) | San Diego |
| District 76 | 37% | (34-39) | San Diego |
| District 77 | 38% | (35-41) | San Diego |
| District 78 | 39% | (36-41) | San Diego |
| District 79 | 39% | (36-42) | San Diego |
| District 80 | 42% | (39-45) | Imperial, Riverside |

*Exhibit 1 (continued): Hypertension Prevalence Rates by Assembly District, Age 45 and Older*
Source: 2001 California Health Interview Survey, 2000-2002 Current Population Surveys, and the 2000 Census.

*Assembly Districts*

* The numbers presented here are the midpoint of the "95% range."

** The "95% range" (commonly called a confidence interval) provides a more reliable estimate of the hypertension prevalence rate for persons in the population group.

## Geographic Areas with High Hypertension Rates Have Large Proportions of Elderly or Ethnic Minorities

Fresno and Tulare counties had uniformly high hypertension prevalence rates for adults age 45 and older for both legislative and Congressional districts. However, Imperial, Lake/Mendocino and Merced counties had the highest prevalence rates of the state's 58 counties, even though no single legislative or Congressional district had a distinctly high hypertension prevalence rate. One reason for high hypertension prevalence rates in these counties may be the demographic profile of the population in these areas. Although hypertension occurs more often in African Americans, hypertension is more common among people age 65 and older. For example, about 16% of the population in the Mendocino/Lake county

group is age 65 or older, and about 87% of older adults in this county group are non-Latino white. In Merced County, 73% of the older adult population is non-Latino white. In Imperial County, older adults comprise 11% of the county's population, and almost half of the county's older residents are non-Latino white.

## Conclusion

This policy brief highlights the problem of hypertension among the adult population in California. More than two-fifths of all California adults age 45 and older are living with high blood pressure. Hypertension is more common among people age 65 and older, but the condition is on the rise among people at younger ages. Since high blood pressure rates increase rapidly with age, differences in hypertension rates between legislative districts may be partly due to different numbers of older residents in each district. Nonetheless, districts with large numbers of residents with high blood pressure—no matter what the age—face a major public health challenge. To reduce hypertension, the National High Blood Pressure Education Program[1] recommends that individuals quit smoking, maintain a normal body weight, reduce salt consumption, exercise regularly, limit alcohol consumption and follow a diet that is rich in fruits and vegetables. Education can improve these health behaviors; however, for education and prevention awareness to be effective, they must be culturally and linguistically appropriate.

Even then, education and healthy behaviors are only part of the solution. Population-based strategies are critical to a comprehensive approach in reducing hypertension. These strategies include lowering the sodium content and caloric density in the food supply and providing attractive, safe and convenient opportunities for exercise (parks, walking trails and bike paths). Environmental conditions that foster exercise, including reducing crime in public spaces and improving air quality, are necessary components of a population strategy. Even a small decrease in the average high blood pressure for residents in a community is likely to result in a substantial reduction in the burden of blood pressure–related illness in that community.

Another essential population-based strategy is providing all residents equitable access to early detection and treatment, specifically screening, medications and follow-up care. It is sometimes necessary to add a regimen of blood pressure medications when lifestyle changes alone are not enough to control the condition; however, not everyone with hypertension has the health insurance coverage necessary to receive proper medical care for the condition. For example, about only 30% of uninsured adults (ages 18-64) with high blood pressure take medication for the condition compared to 53% of their counterparts who have job-based health insurance.[2]

The data presented in this policy brief give policy makers, advocates and medical providers useful information on the burden of hypertension throughout California and within local communities. Communities face a serious challenge to provide adequate access to the medical care needed to control high blood pressure and the health problems that can result from poor management. Equitable access to early detection, treatment and educational programs can improve the health of the millions of California adults who suffer from this insidious condition that can lead to heart disease and stroke—the first and third leading causes of death in California.

### Data Sources and Methods

*This policy brief is based on findings from the 2001 California Health Interview Survey (CHIS 2001), 2000-2002 Current Population Surveys (CPS), 2000 Census, 2002 Department of Finance population projections, and the California State Senate Office of Demographics' file of legislative districts. The estimates of high blood pressure prevalence were created using a small-area methodology of the multiple data sources listed here. A detailed description of the methodology used in this study is available from the authors.*

### Author Information

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*(Continued on page 8)*

1 PK Whelton, J He, LJ Appel, JA Cutler, S Havas, TA Kotchen, EJ Roccella, R Stout, C Vallbona, MC Winston, J Karimbakas. Primary prevention of hypertension: clinical and public health advisory from The National High Blood Pressure Education Program. JAMA 2002 Oct 16;288(15):1882-8.

2 ER Brown, N Ponce, T Rice, SA Lavarreda. *The State of Health Insurance in California: Findings from the 2001 California Health Interview Survey.* Los Angeles, CA: UCLA Center for Health Policy Research, 2002.

| CALIFORNIA RESIDENTS 45+ DIAGNOSED WITH HYPERTENSION | | | |
|---|---|---|---|
| | Rate* | 95% Range** | County Location of Senate District |
| CALIFORNIA | 38% | (37-39) | |
| District 01 | 37% | (35-38) | Alpine, Amador, Calaveras, El Dorado, Lassen, Modoc, Mono Nevada, Placer, Plumas, Sacramento, Sierra |
| District 02 | 41% | (39-43) | Humboldt, Lake, Mendocino, Napa, Solano, Sonoma |
| District 03 | 34% | (32-37) | Marin, San Francisco, Sonoma |
| District 04 | 39% | (37-41) | Butte, Colusa, Del Norte, Glenn, Nevada, Placer, Shasta, Siskiyou, Sutter, Tehama, Trinity, Yuba |
| District 05 | 41% | (38-43) | Sacramento, San Joaquin, Solano, Yolo |
| District 06 | 41% | (38-45) | Sacramento |
| District 07 | 32% | (29-36) | Contra Costa |
| District 08 | 39% | (36-42) | San Francisco, San Mateo |
| District 09 | 41% | (38-45) | Alameda, Contra Costa |
| District 10 | 39% | (36-42) | Alameda, Contra Costa |
| District 11 | 35% | (33-38) | San Mateo, Santa Clara, Santa Cruz |
| District 12 | 41% | (39-44) | Madera, Merced, Monterey, San Benito, Stanislaus |
| District 13 | 37% | (33-40) | Santa Clara |
| District 14 | 42% | (39-44) | Fresno, Madera, Mariposa, San Joaquin, Stanislaus, Tuolumne |
| District 15 | 36% | (34-38) | Monterey, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz |
| District 16 | 44% | (41-46) | Fresno, Kern, Kings, Tulare |
| District 17 | 41% | (39-44) | Los Angeles, San Bernardino, Ventura |
| District 18 | 43% | (40-45) | Inyo, Kern, San Bernardino, Tulare |
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| District 20 | 36% | (33-39) | Los Angeles |
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| District 24 | 37% | (34-40) | Los Angeles |
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| District 26 | 42% | (39-45) | Los Angeles |
| District 27 | 38% | (36-41) | Los Angeles |
| District 28 | 35% | (32-37) | Los Angeles |
| District 29 | 35% | (34-37) | Los Angeles, Orange, San Bernardino |
| District 30 | 38% | (35-42) | Los Angeles |
| District 31 | 40% | (37-42) | Riverside, San Bernardino |
| District 32 | 41% | (38-44) | Los Angeles, San Bernardino |
| District 33 | 34% | (32-37) | Orange |
| District 34 | 36% | (33-39) | Orange |
| District 35 | 33% | (31-36) | Orange |
| District 36 | 37% | (35-40) | Riverside, San Diego |
| District 37 | 42% | (38-45) | Riverside |
| District 38 | 36% | (34-38) | Orange, San Diego |
| District 39 | 37% | (34-39) | San Diego |
| District 40 | 40% | (38-42) | Imperial, Riverside, San Diego |

* The numbers presented here are the midpoint of the "95% range."

** The "95% range" (commonly called a confidence interval) provides a more reliable estimate of the hypertension prevalence rate for persons in the population group.

***Exhibit 2: Hypertension Prevalence Rates by Senate District, Age 45 and Older***
Source: 2001 California Health Interview Survey, 2000-2002 Current Population Surveys, and the 2000 Census.

## *Senate Districts*

## Congressional Districts

***Exhibit 3: Hypertension Prevalence Rates by Congressional District, Age 45 and Older***
Source: 2001 California Health Interview Survey, 2000-2002 Current Population Surveys, and the 2000 Census.

| CALIFORNIA RESIDENTS 45+ DIAGNOSED WITH HYPERTENSION | | | |
|---|---|---|---|
| | Rate* | 95% Range** | County Location of Congressional District |
| CALIFORNIA | 38% | (37-39) | |
| District 01 | 41% | (39-43) | Del Norte, Humboldt, Lake, Mendocino, Napa, Sonoma, Yolo |
| District 02 | 39% | (37-41) | Butte, Colusa, Glenn, Shasta, Siskiyou, Sutter, Tehama, Trinity, Yolo, Yuba |
| District 03 | 38% | (35-41) | Alpine, Amador, Calaveras, Sacramento, Solano |
| District 04 | 37% | (35-39) | Butte, El Dorado, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Sierra |
| District 05 | 42% | (38-45) | Sacramento |
| District 06 | 33% | (29-36) | Marin, Sonoma |
| District 07 | 39% | (37-42) | Contra Costa, Solano |
| District 08 | 39% | (36-42) | San Francisco |
| District 09 | 43% | (39-46) | Alameda |
| District 10 | 34% | (32-37) | Alameda, Contra Costa, Sacramento, Solano |
| District 11 | 37% | (35-40) | Alameda, Contra Costa, San Joaquin, Santa Clara |
| District 12 | 39% | (36-42) | San Francisco, San Mateo |
| District 13 | 40% | (36-43) | Alameda |
| District 14 | 34% | (32-37) | San Mateo, Santa Clara, Santa Cruz |
| District 15 | 36% | (32-39) | Santa Clara |
| District 16 | 37% | (34-40) | Santa Clara |
| District 17 | 36% | (32-39) | Monterey, San Benito, Santa Cruz |
| District 18 | 43% | (41-46) | Fresno, Madera, Merced, San Joaquin, Stanislaus |
| District 19 | 41% | (39-44) | Fresno, Madera, Mariposa, Stanislaus, Tuolumne |
| District 20 | 43% | (41-46) | Fresno, Kern, Kings |
| District 21 | 45% | (42-48) | Fresno, Tulare |
| District 22 | 41% | (38-44) | Kern, Los Angeles, San Luis Obispo |
| District 23 | 37% | (34-39) | San Luis Obispo, Santa Barbara, Ventura |
| District 24 | 36% | (33-40) | Santa Barbara, Ventura |
| District 25 | 41% | (38-44) | Inyo, Los Angeles, Mono, San Bernardino |
| District 26 | 37% | (35-39) | Los Angeles, San Bernardino |
| District 27 | 36% | (34-39) | Los Angeles |
| District 28 | 35% | (32-37) | Los Angeles |
| District 29 | 37% | (34-39) | Los Angeles |
| District 30 | 31% | (29-34) | Los Angeles |
| District 31 | 35% | (31-38) | Los Angeles |
| District 32 | 37% | (34-40) | Los Angeles |
| District 33 | 42% | (40-45) | Los Angeles |
| District 34 | 38% | (35-41) | Los Angeles |
| District 35 | 45% | (42-47) | Los Angeles |
| District 36 | 34% | (32-37) | Los Angeles |
| District 37 | 43% | (40-45) | Los Angeles |
| District 38 | 38% | (36-41) | Los Angeles |
| District 39 | 38% | (35-41) | Los Angeles |
| District 40 | 36% | (33-39) | Orange |
| District 41 | 43% | (40-45) | Riverside, San Bernardino |
| District 42 | 35% | (33-36) | Los Angeles, Orange, San Bernardino |
| District 43 | 42% | (38-45) | San Bernardino |
| District 44 | 38% | (35-41) | Orange, Riverside |
| District 45 | 41% | (37-44) | Riverside |
| District 46 | 35% | (33-37) | Los Angeles, Orange |
| District 47 | 35% | (32-38) | Orange |
| District 48 | 33% | (30-35) | Orange |
| District 49 | 40% | (38-42) | Riverside, San Diego |
| District 50 | 34% | (32-37) | San Diego |
| District 51 | 41% | (38-43) | Imperial, San Diego |
| District 52 | 37% | (34-39) | San Diego |
| District 53 | 37% | (35-39) | San Diego |

* The numbers presented here are the midpoint of the "95% range."

** The "95% range" (commonly called a confidence interval) provides a more reliable estimate of the hypertension prevalence rate for persons in the population group.

| CALIFORNIA RESIDENTS 45+ DIAGNOSED WITH HYPERTENSION | | |
|---|---|---|
| | Rate* | 95% Range** |
| CALIFORNIA | 38% | (37-39) |
| Alameda | 41% | (37-44) |
| Alpine, Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono | 35% | (31-40) |
| Butte | 39% | (35-43) |
| Colusa, Glenn, Tehama | 41% | (37-45) |
| Contra Costa | 33% | (30-37) |
| Del Norte, Humboldt | 41% | (37-46) |
| El Dorado | 35% | (30-40) |
| Fresno | 44% | (41-48) |
| Imperial | 47% | (42-52) |
| Kern | 41% | (37-45) |
| Kings | 42% | (37-46) |
| LA SPA Antelope Valley | 45% | (38-52) |
| LA SPA East | 38% | (35-42) |
| LA SPA Metro | 35% | (32-39) |
| LA SPA San Fernando | 35% | (33-38) |
| LA SPA San Gabriel | 36% | (34-39) |
| LA SPA South | 48% | (44-53) |
| LA SPA South Bay | 38% | (36-41) |
| LA SPA West | 30% | (27-34) |
| Lake, Mendocino | 47% | (42-51) |
| Lassen, Modoc, Siskiyou, Trinity | 38% | (34-42) |
| Madera | 44% | (40-49) |
| Marin | 27% | (23-31) |
| Merced | 46% | (42-51) |
| Monterey, San Benito | 37% | (32-41) |
| Napa | 42% | (37-47) |
| Nevada, Plumas, Sierra | 36% | (31-40) |
| Orange | 34% | (32-37) |
| Placer | 38% | (33-42) |
| Riverside | 41% | (37-44) |
| Sacramento | 40% | (36-44) |
| San Bernardino | 41% | (38-45) |
| San Diego | 37% | (35-39) |
| San Francisco | 39% | (35-42) |
| San Joaquin | 42% | (38-46) |
| San Luis Obispo | 37% | (32-41) |
| San Mateo | 39% | (35-43) |
| Santa Barbara | 37% | (33-40) |
| Santa Clara | 36% | (32-39) |
| Santa Cruz | 33% | (28-37) |
| Shasta | 41% | (37-45) |
| Solano | 43% | (40-46) |
| Sonoma | 37% | (32-42) |
| Stanislaus | 40% | (35-46) |
| Sutter/Yuba | 38% | (34-42) |
| Tulare | 45% | (41-50) |
| Ventura | 36% | (32-40) |
| Yolo | 35% | (30-40) |

* The numbers presented here are the midpoint of the "95% range."

** The "95% range" (commonly called a confidence interval) provides a more reliable estimate of the hypertension prevalence rate for persons in the population group.

***Exhibit 4: Hypertension Prevalence Rates by County, County-Group or Los Angeles Service Planning Area (SPA), Age 45 and Older***
Source: 2001 California Health Interview Survey, 2000-2002 Current Population Surveys, and the 2000 Census.

***County, County-Group or Los Angeles Service Planning Area***

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