

April 2024

Geographic Disparities in Preventable Hospitalizations and Emergency Department Visits in Los Angeles County

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KEY TAKEAWAYS

- > South Los Angeles and Antelope Valley have higher rates of potentially preventable hospitalizations and emergency department visits among Los Angeles' 8 Service Planning Areas (SPAs).
- > Even within service planning areas, rates of potentially preventable hospitalizations vary considerably.
- > In Los Angeles County, service planning areas with the highest rates of potentially preventable hospitalizations and emergency department visits are the same areas with the highest percentages of adults insured by Medi-Cal.

Summary: This policy brief examines geographic disparities in rates of potentially preventable hospitalizations and emergency department visits among adults ages 18 and older by Service Planning Areas (SPA) in Los Angeles County from 2016 to 2021. We look at three combinations of conditions that are typically preventable, given appropriate disease management: all conditions, chronic conditions, and diabetes-related conditions.

Findings: South Los Angeles (SPA 6) and the Antelope Valley (SPA 1) have the highest rates of potentially preventable hospitalizations and emergency department visits among Los Angeles' 8 SPAs. South Los Angeles has a rate of preventable hospitalizations for all conditions that is 1.7 times that of West Los Angeles (SPA 5), which has the lowest rate. Also, SPA 6 has the highest proportion covered by Medi-Cal (35.2%), followed by SPA 1 (27.9%), while SPA 5 has the lowest percentage insured with Medi-Cal (10.7%). Authors recommend that state and local policymakers and payers should consider improving access to primary and specialty care and increasing payments for Medi-Cal providers to help prevent costly ED visits and hospitalizations.

In California, there were more than 220,000 preventable hospitalizations in 2021, with more than

1 in 4 (over 58,000)
of them in Los Angeles County.

INTRODUCTION

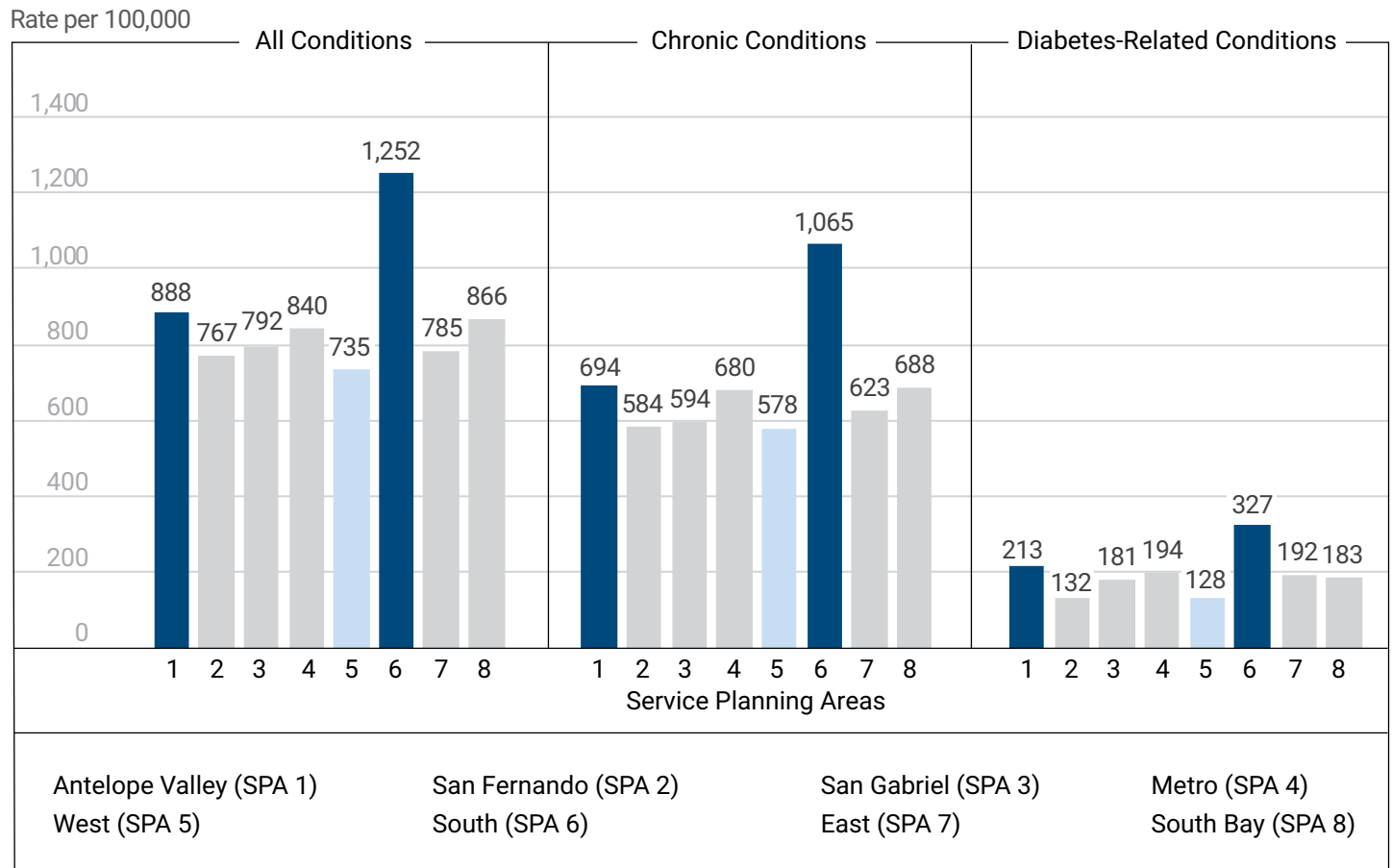
Proper disease management, which includes regular visits to primary care providers and specialists along with adherence to medications, could prevent an emergency department (ED) visit or hospitalization for many conditions, such as diabetes, asthma, and hypertension. Preventable hospitalizations and ED visits result in higher costs: They are estimated to cost 2.5 to 10 times more than outpatient visits, after adjusting for comorbidities and demographics.¹ In California alone, over \$3.5 billion is spent annually on hospitalizations that would be potentially preventable with better outpatient care.² In 2017, there were 3.5 million potentially preventable hospitalizations among adults nationally.³ In California, there were more than 220,000 preventable hospitalizations in 2021, with more than one-quarter of them (over 58,000) in Los Angeles County.⁴

Los Angeles County is the most populous county in the United States. With nearly 10 million residents, it accounts for more than one-quarter of California's population. Due to its large population and geographical size, the county is split into eight Service Planning Areas (SPAs) for the purposes of planning and providing public health and clinical services.⁵ The demographics and health needs of residents vary considerably across SPAs. For example, in 2021 the percentage of adults living below the poverty line ranged from 8% in West Los Angeles (SPA 5) to 26% in South Los Angeles (SPA 6), and the percentage reporting fair or poor health status ranged from 8% in West Los Angeles (SPA 5) to 28% in South Los Angeles (SPA 6).⁶

This policy brief examines variations in rates of potentially preventable hospitalizations and ED visits among adults by Service Planning Areas (SPA) in Los Angeles County.

Exhibit 1 / Rates of Potentially Preventable Hospitalizations Across Los Angeles Service Planning Areas, 2016–2021

■ Highest rates ■ Lowest rates ■ Other rates



Source: 2016–2021 Los Angeles County Hospital Patient Discharge Data

We analyzed patient discharge data for hospitalizations and ED visits from 2016 to 2021 from the California Department of Health Care Access and Information (HCAI) to produce rates of potentially preventable hospitalizations and ED visits per 100,000 population for each SPA. This report examines rates for three combinations of conditions for which hospitalizations and ED visits are typically preventable with appropriate disease management: all conditions, chronic conditions, and diabetes-related conditions.⁷ (See the Data Source and Methods section for the specific conditions included in each

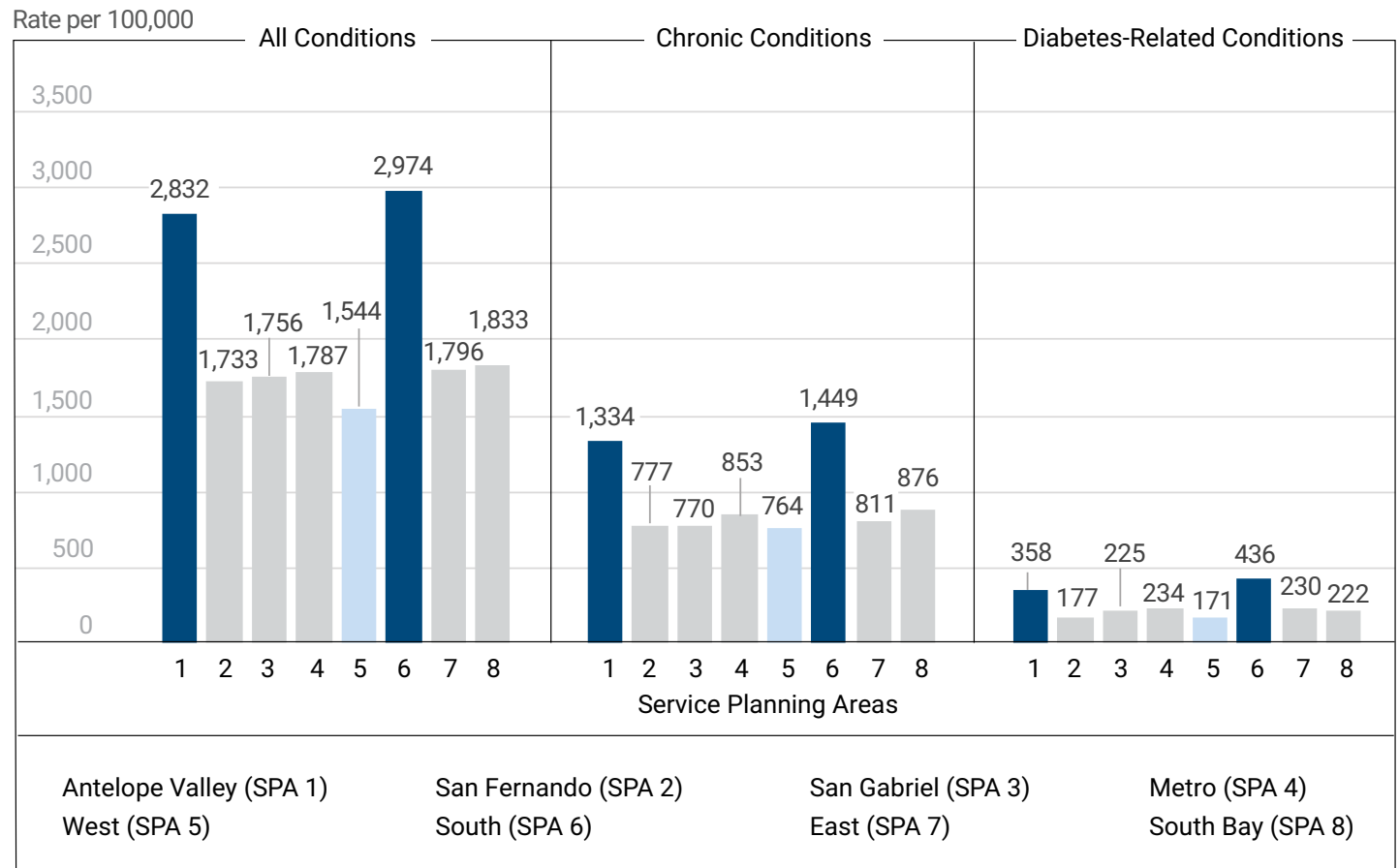
indicator.) Rates per 100,000 population for preventable hospitalizations and ED visits are analyzed and presented separately.

South Los Angeles and Antelope Valley Experience Higher Rates of Preventable Hospitalizations and ED Visits

Rates of potentially preventable hospitalizations and ED visits vary considerably across Los Angeles County. South Los Angeles (SPA 6) and Antelope Valley (SPA 1) have the highest rates of potentially preventable hospitalizations and emergency department visits among Los Angeles' 8 SPAs (Exhibit 1).

Exhibit 2 / Rates of Potentially Preventable Emergency Department (ED) Visits Across Los Angeles Service Planning Areas, 2016–2021

■ Highest rates ■ Lowest rates ■ Other rates



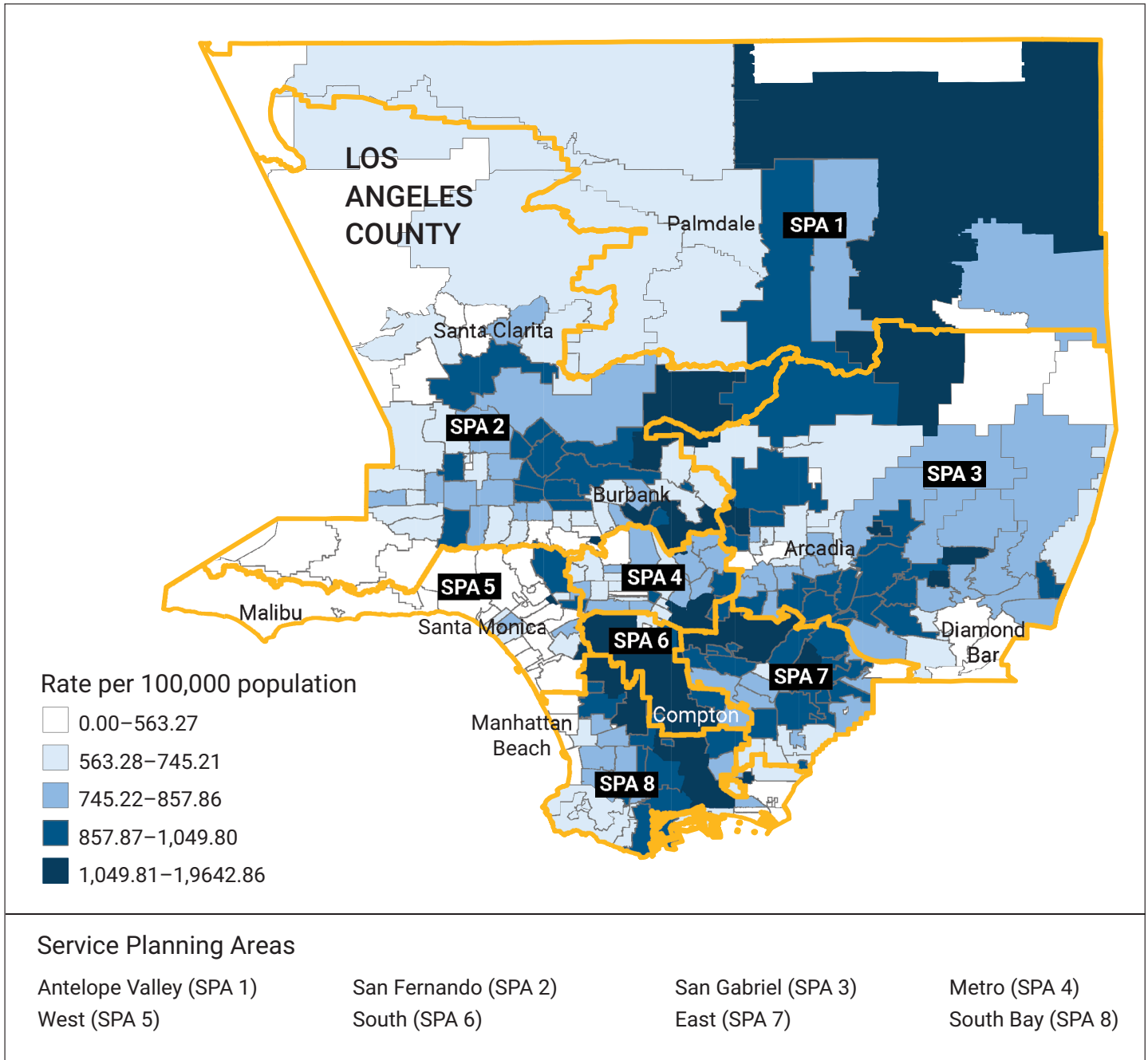
Source: 2016–2021 Los Angeles County Hospital Emergency Department Data

For example, South Los Angeles (SPA 6) has the highest rate of preventable hospitalizations for all conditions (1,252 per 100,000 population), followed by Antelope Valley (SPA 1; 888). The South Los Angeles rate is 1.4 times the rate for Antelope Valley and 1.7 times the rate for West Los Angeles (SPA 5), which has the lowest rate (735). South Los Angeles (SPA 6) also has the highest rates of potentially preventable ED visits across all three indicators, and Antelope Valley (SPA 1) has the second-highest (Exhibit 2).

South Los Angeles (SPA 6) has the highest rate of potentially preventable diabetes-

related hospitalizations. Specifically, the rate of potentially preventable diabetes-related hospitalizations in South Los Angeles (327) is 1.5 times the rate in Antelope Valley (SPA 1; 213) and 2.5 times the rate in West Los Angeles (SPA 5), which has the lowest rate, at 128. Antelope Valley (SPA 1) has the second-highest rate (213), 1.7 times the rate for West Los Angeles (SPA 5). A similar pattern is seen in potentially preventable ED visits related to diabetes (Exhibit 2). South Los Angeles has the highest rate of potentially preventable diabetes-related emergency department visits (436), followed by Antelope Valley (358). West Los Angeles (SPA 5) has the lowest rate (171).

Exhibit 3 / Overall Rates of Potentially Preventable Hospitalizations for All Conditions by ZIP Code, Los Angeles County



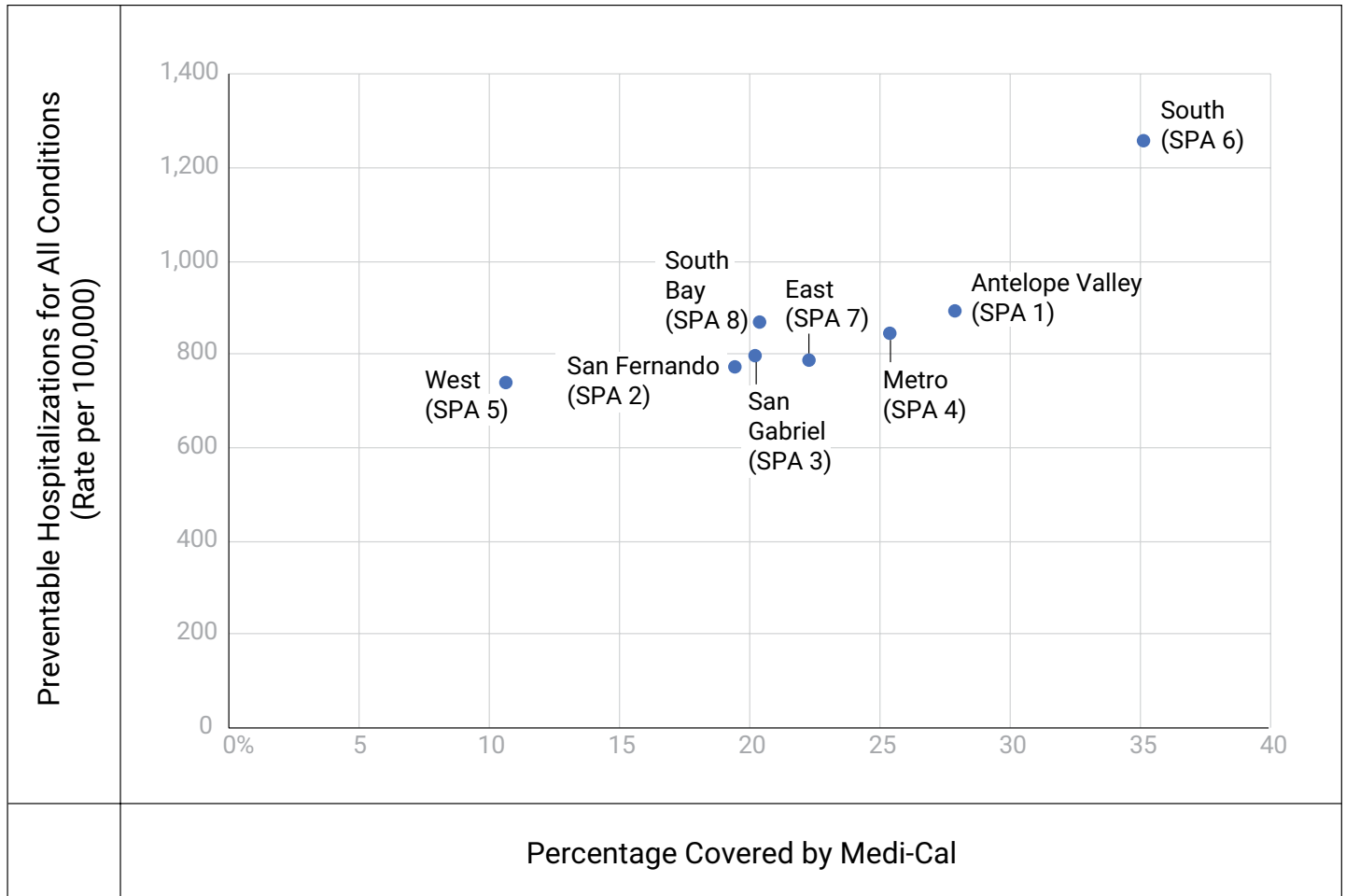
Source: 2016–2021 Los Angeles County Hospital Patient Discharge Data

Rates of Preventable Hospitalizations Also Vary Considerably Within Service Planning Areas

Even within service planning areas, rates of potentially preventable hospitalizations vary considerably. The map (Exhibit 3) displays

rates of potentially preventable hospitalizations for all conditions in Los Angeles County by ZIP code. The map highlights clusters of ZIP codes with particularly high rates within each service planning area.

Exhibit 4 / Rates of Potentially Preventable Hospitalizations and Percentage Covered by Medi-Cal, Los Angeles Service Planning Areas, Adults 18 and Older



Source: 2016–2021 Los Angeles County Hospital Patient Discharge Data and 2016–2021 California Health Interview Survey Data

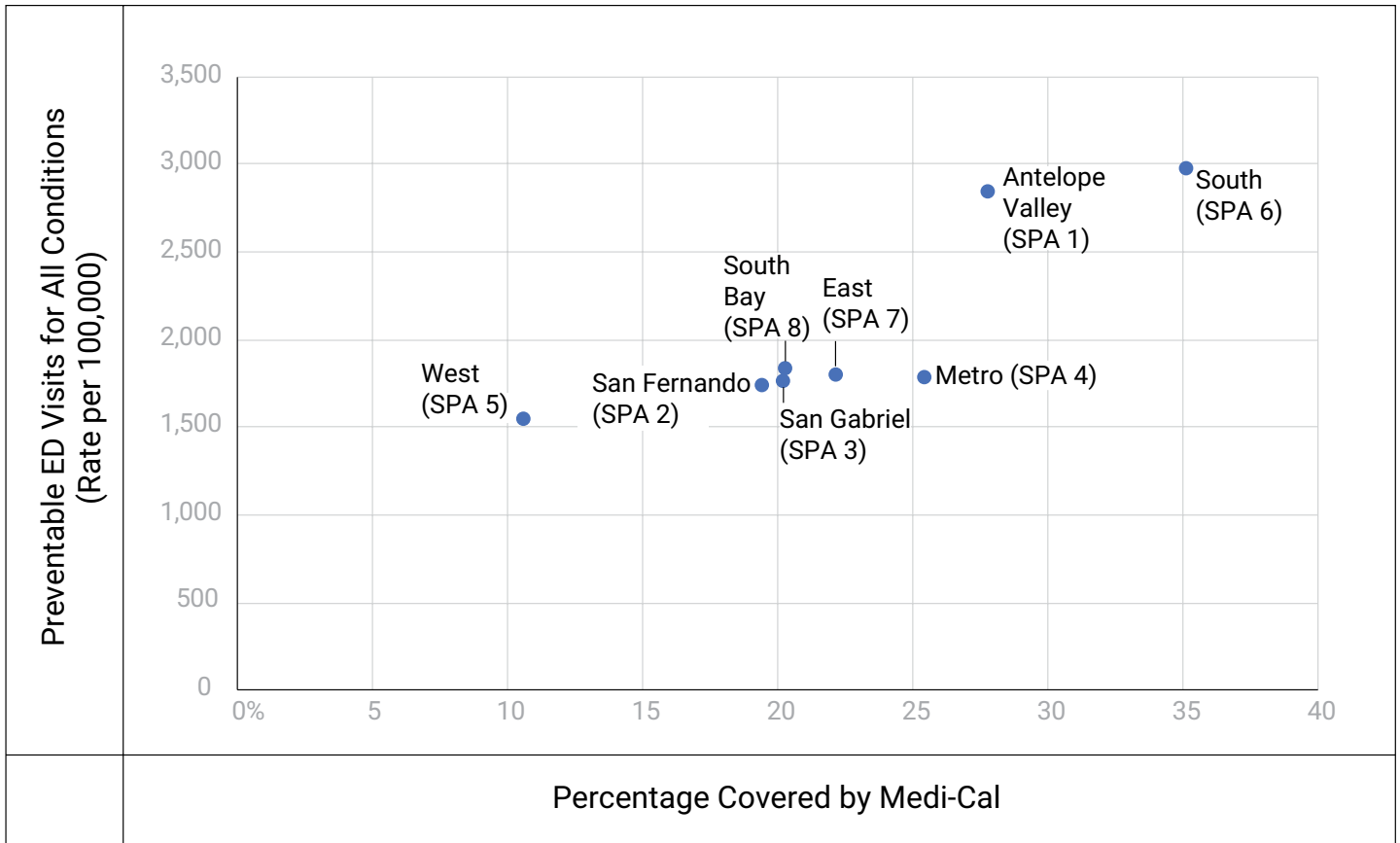
Antelope Valley (SPA 1), San Fernando (SPA 2), and South Los Angeles (SPA 6) have notably large clusters of ZIP codes with rates of preventable hospitalizations that fall into the highest 20% of the entire county, which includes ZIP codes with more than 1,049.8 hospitalizations per 100,000.

Potentially Preventable Hospitalizations and ED Visits Are Associated With Rates of Medi-Cal Coverage

In Los Angeles County, service planning areas with the highest rates of potentially preventable

hospitalizations and ED visits are the same areas with the highest percentages of adults insured by Medi-Cal (Exhibits 4 and 5). Medi-Cal is California’s Medicaid program, providing health insurance to Californians with limited income and resources. South L.A. (SPA 6) has the highest rate of potentially preventable hospitalizations (1,252 per 100,000) among adults 18 and older and the highest proportion covered by Medi-Cal (35.2%), followed by Antelope Valley (888 preventable hospitalizations per 100,000 and 27.9% covered by Medi-Cal).

Exhibit 5 / Rates of Potentially Preventable ED Visits and Percentage Covered by Medi-Cal, Los Angeles Service Planning Areas, Adults 18 and Older



Source: 2016–2021 Los Angeles County Hospital Emergency Department Data and 2016–2021 California Health Interview Survey Data

West Los Angeles (SPA 5) has the lowest rate of potentially preventable hospitalizations, as well as the lowest percentage insured with Medi-Cal (735 per 100,000 and 10.7%, respectively). A similar pattern is seen for potentially preventable ED visits.

CONCLUSIONS AND RECOMMENDATIONS

Los Angeles County is a large and diverse county. High rates of potentially preventable hospitalizations and ED visits are indicators of poor access to primary and specialty care or issues with quality of care,⁷ and can highlight a

need for improvement in access and quality of primary care and specialty care services.

The data presented in this brief highlight geographic disparities in preventable hospital admissions and ED visits within Los Angeles County. High rates of preventable emergency department visits and hospitalizations in South Los Angeles (SPA 6) and Antelope Valley (SPA 1) suggest that outpatient care in these areas is not meeting the needs of the populations living there due to inequities in access to and quality of health care combined with high rates of need. High-quality outpatient care is a necessary component for reducing rates of preventable hospitalizations and ED visits.



In addition, the data show that high rates of preventable hospitalizations and ED visits are associated with high rates of Medi-Cal coverage. For both hospitalizations and ED visits, South Los Angeles (SPA 6) and Antelope Valley (SPA 1) had the highest and second-highest rates of preventable hospitalizations and ED visits, as well as the highest and second-highest percentage of adults covered by Medi-Cal. Although Medicaid recipients have better access to care than adults without insurance, research suggests that Medicaid recipients experience more barriers to accessing care relative to those with Medicare or private health insurance.⁸ Gaps in access experienced by Medicaid recipients often mirror systemic access issues but are exacerbated by lower payments to Medicaid providers, shortages of Medicaid providers in low resource communities, and lower provider participation in Medicaid relative to private insurance.⁹

To help prevent costly ED visits and hospitalizations, state and local policymakers and payers should consider the following:

- **Improve access to primary and specialty care.** Rates of preventable hospitalizations and ED visits were particularly high in South Los Angeles and the Antelope Valley, suggesting that these areas are in need of more investments in primary care to improve access. Access to outpatient care could be increased if payers (such as the Centers for Medicare & Medicaid Services) increased the proportion of spending allocated to primary care.¹⁰ In addition, investments in the creation of new health centers could target areas with federally designated shortages. Investments in primary care infrastructure should support team-based, community-oriented care.¹¹ Health provider organizations (hospitals, primary care practices, and health centers) should establish ongoing clinical relationships after treating uninsured and Medicaid-insured people to improve connections to the health care system and future access. Improving outpatient care also requires adequate provider networks; currently, there are regulations for adequacy for the Medicaid managed care population.

High rates of potentially preventable hospitalizations and ED visits are indicators of poor access to primary and specialty care or issues with quality of care.

Given that 80% of the Medi-Cal population in L.A. County is enrolled in managed care,¹² it is important to direct investments to ensure that networks at a minimum meet these requirements.

- **Increase payments for Medi-Cal providers.** Research suggests that higher Medicaid reimbursement rates are associated with better access to health care.¹³ In California, Medi-Cal providers are paid 73 cents for every dollar paid to Medicare providers. For all services, California ranks 32nd in the nation in its Medicaid-to-Medicare Fee Index (Medicaid reimbursement/Medicare reimbursement), indicating that 31 states have smaller differences between fees paid for Medicaid services and for Medicare.¹⁴ Low Medicaid payment rates can result in fewer providers available to residents of communities with high proportions of Medicaid recipients. South Los Angeles and the Antelope Valley had the highest rates of preventable hospitalizations and ED visits, and these areas also had the highest proportions of adults covered by Medi-Cal. Improving payment rates for health care providers can help attract and retain skilled professionals in communities

with populations that are predominantly on Medi-Cal. Adequately financing primary and specialty care services in areas with high rates of preventable hospitalizations and ED visits enables timely interventions and preventive measures, which are particularly crucial in the management of chronic conditions like diabetes. Investment in primary care is associated with lower health care costs and also elevates the quality of care and promotes long-term community health by addressing disparities and improving health outcomes.¹⁵⁻¹⁷

California recently passed legislation that will increase provider reimbursement rates for some services, including primary care, beginning this year.¹⁸ This change targets rate increases for primary care, obstetric, and nonspecialty mental health services at no less than 87.5% of the Medicare rate.

Data Source and Methods

The findings in this study are based on hospital discharge and emergency department encounter data for Los Angeles County from the California Department of Health Care Access, and Information as well as data from the California Health Interview Survey. The hospital data consists of a record for each patient discharged from a California-licensed hospital, and the emergency department data includes a record for each ED patient who saw a provider at a California hospital licensed to provide emergency medical services. There is no duplication across datasets; hospital admissions from emergency departments are included in hospital discharge data and excluded from ED data.

The hospital and ED data were used to calculate rates of potentially preventable hospitalizations and ED visits based on admissions or visits for conditions for which hospitalizations and ED visits can typically be prevented if there is appropriate disease management in three categories: an overall rate, a chronic conditions rate, and a diabetes-related rate. All rates are per 100,000 population, ages 18 years and older. The overall rate includes hospital admissions or ED visits for one of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, angina without a cardiac procedure, dehydration, bacterial pneumonia, or urinary tract infection.⁷

The chronic conditions rate includes hospital admissions or ED visits for one of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, or angina without a cardiac procedure.⁷

The diabetes-related rate includes hospital admissions or ED visits for one of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, or diabetes with lower-extremity amputation.⁷ These conditions are also used by the Agency for Healthcare Research and

Quality (AHRQ) to calculate Prevention Quality Indicators. Rates for potentially preventable hospitalizations and ED visits were calculated for each Los Angeles County Service Planning Area. To obtain rates for each SPA, the number of ambulatory care sensitive condition-related hospitalizations or ED visits in patients 18 years or older was divided by the total number of adults 18 years or older.

Spatial relationships for ZIP codes containing medically underserved areas were established through spatial joins based on one-to-one intersections. Any ZIP code with an intersection with a medically underserved area, which is sourced from the federal Health Resources and Services Administration, was designated as a medically underserved area. All geoprocessing techniques, spatial statistics, and spatial joins were conducted in ArcGIS Pro.

Data from the California Health Interview Survey (CHIS) were used to produce the percentage of adults with health insurance through Medi-Cal for the Los Angeles County Service Planning Areas. Data estimates were produced using the AskCHIS online query system: <https://ask.chis.ucla.edu/>.

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Acknowledgments

The authors would like to thank the center's communications department for assistance with production and dissemination. The authors are grateful to the following reviewers for their thoughtful and thorough reviews: Nadereh Pourat, PhD, associate director of the center and director of the Health Economics and Evaluation Research Program at the UCLA CHPR; Naman Shah MD, PhD, director, Division of Medical and Dental Affairs, Los Angeles County Department of Public Health; and Joelle Wolstein May, PhD, MPP, research scientist at the UCLA CHPR and adjunct assistant professor in the Department of Health Policy and Management at the UCLA Fielding School of Public Health.



The California Health Interview Survey covers a wide array of health-related topics, including health insurance coverage, health status and behaviors, and access to health care. It is based on interviews conducted continuously throughout the year with respondents from more than 20,000 California households. CHIS interviews were offered in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese, Korean, and Tagalog. CHIS is designed with complex survey methods requiring analysts to use complex survey weights in order to provide accurate variance estimates and statistical testing. CHIS is a collaboration of the UCLA Center for Health Policy Research, the California Department of Public Health, the California Department of Health Care Services, and the Public Health Institute. For other information about CHIS, visit chis.ucla.edu.

Suggested Citation

Ponce NA, Babey SH, Meng YY, Stigers S, Shimkhada R, Kadiyala S, Lio K, Chen P, Reyno J, Batchlor E. 2024. *Geographic Disparities in Preventable Hospitalizations and Emergency Department Visits in Los Angeles County*. Los Angeles, Calif.: UCLA Center for Health Policy Research.

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ISSN 2691-7475

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PB2024-2
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Editor-in-Chief: Ninez A. Ponce, PhD, MPP



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