

Racial, Ethnic, and Economic Disparities in California Medicare Fee-for-Service

Heart Disease and Stroke

Selected indicators from:

Medicare Fee-for-Service In California:

Disparities in Quality by Place, Race and Economic Status

California HealthCare Foundation and CMRI

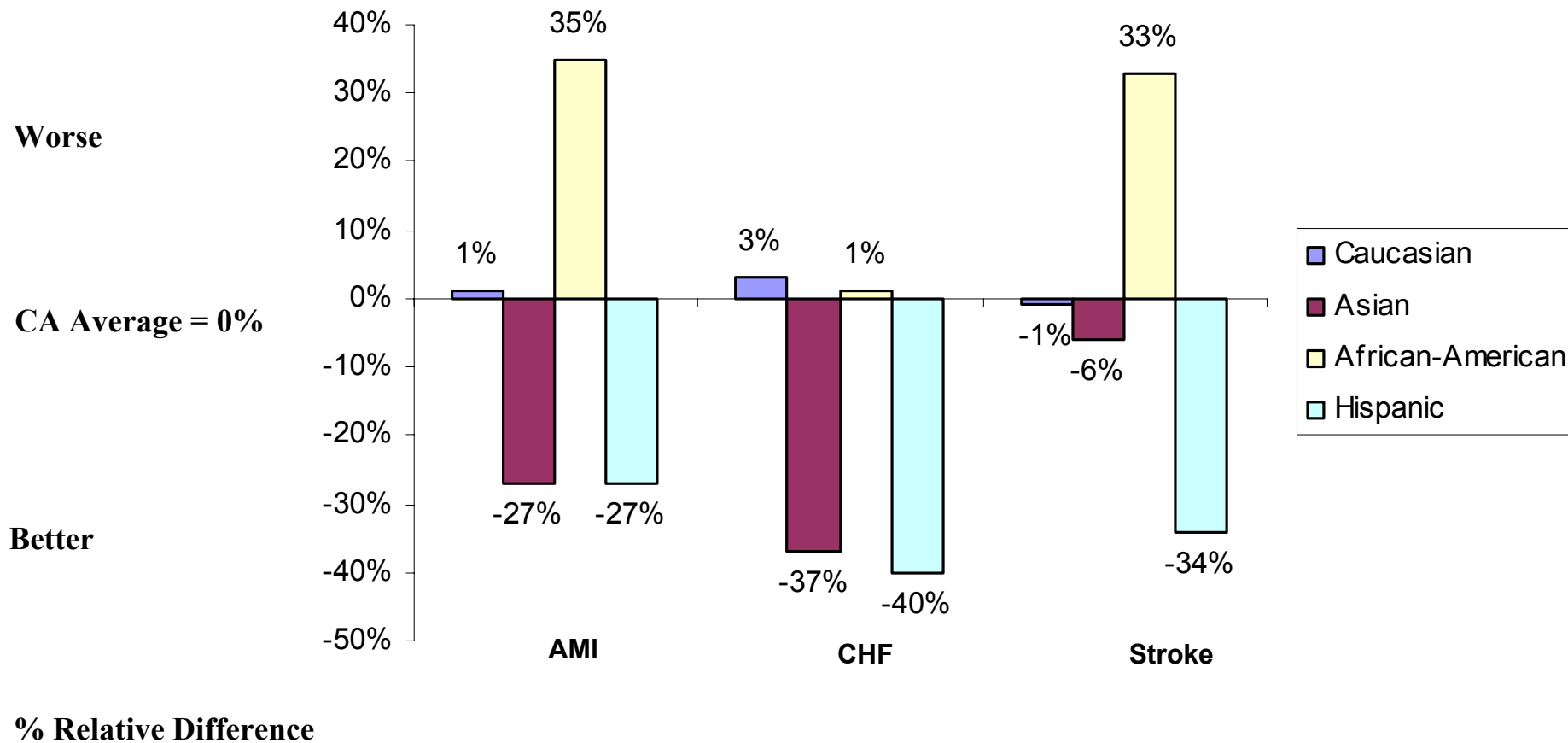
Hospitalization of Medicare Beneficiaries for Selected Conditions, Compared to National Rates

Inpatient Condition	California	U.S.*
Pneumonia # hospitalized % of population	64,476 1.9%	810,000 2.4%
Stroke # hospitalized % of population	60,360 1.8%	704,000 2.1%
Congestive heart failure # hospitalized % of population	55,216 1.6%	757,000 2.2%
Acute myocardial infarction # hospitalized % of population	30,180 0.8%	509,000 2.2%
Atrial fibrillation # hospitalized % of population	17,834 0.5%	n/a

Stroke was the second most common cause of hospitalization among inpatient conditions studied.

* Source: 1999 National Hospital Discharge Survey, age 65 years and over. This source did not include information on U.S. Atrial Fibrillation rates.

Cardiovascular Mortality Rates by Race/ethnic Group



African Americans much more likely to die of AMI and Stroke

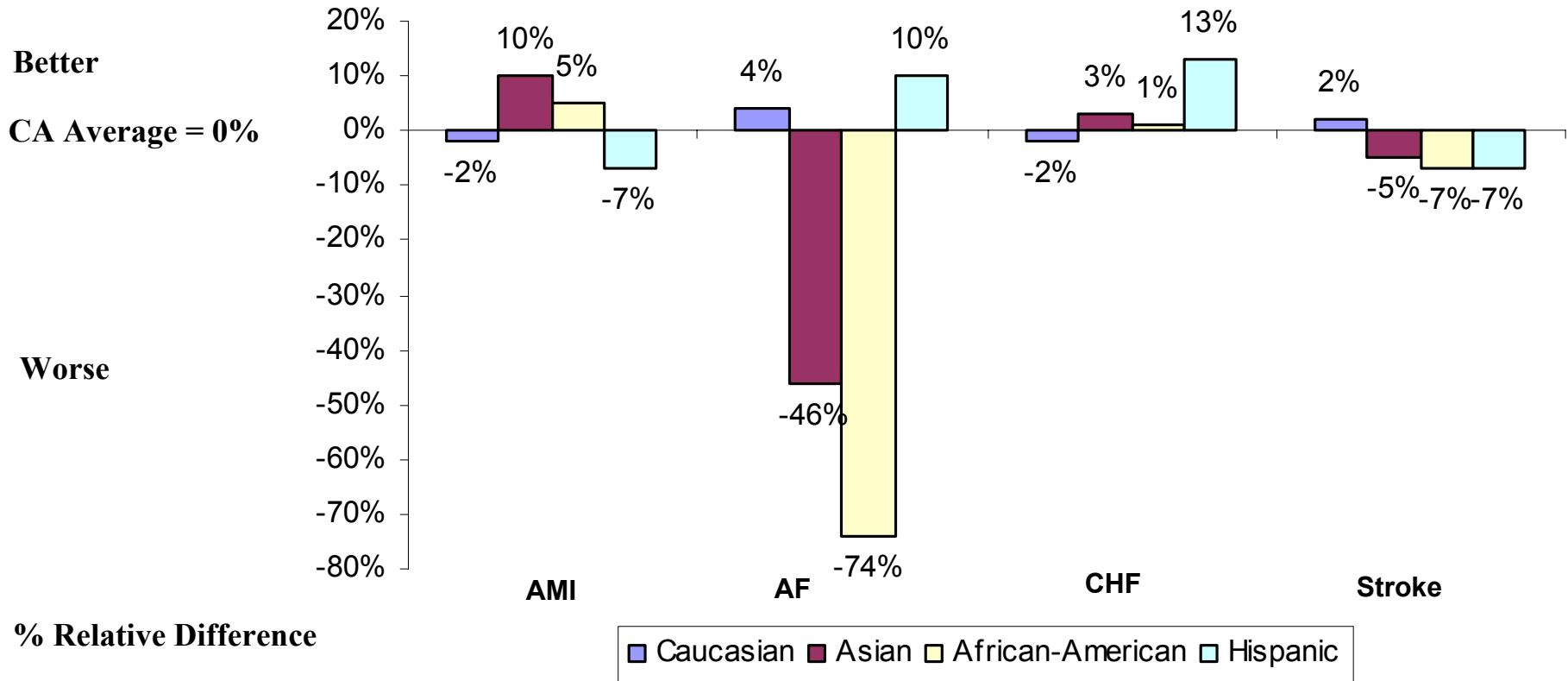
Quality Indicators for Inpatient Cardiovascular Care

- **Atrial Fibrillation** (Inpatient stroke prevention)
 - Atrial fibrillation is an independent risk factor for stroke.
 - All patients admitted for atrial fibrillation should be treated with anticoagulants, such as warfarin, which can reduce risk by up to 62%.
- **Myocardial Infarction**
 - Early administration of aspirin (within 24 hours of hospital arrival)
 - Aspirin prescribed at discharge
 - ACE inhibitor prescribed at discharge for low left ventricular ejection fraction (LVEF)
 - Smoking cessation counseling
 - Beta-blocker prescribed at discharge
 - Early administration of beta-blocker (within 24 hours of hospital arrival)

Quality Indicators for Inpatient Cardiovascular Care (continued)

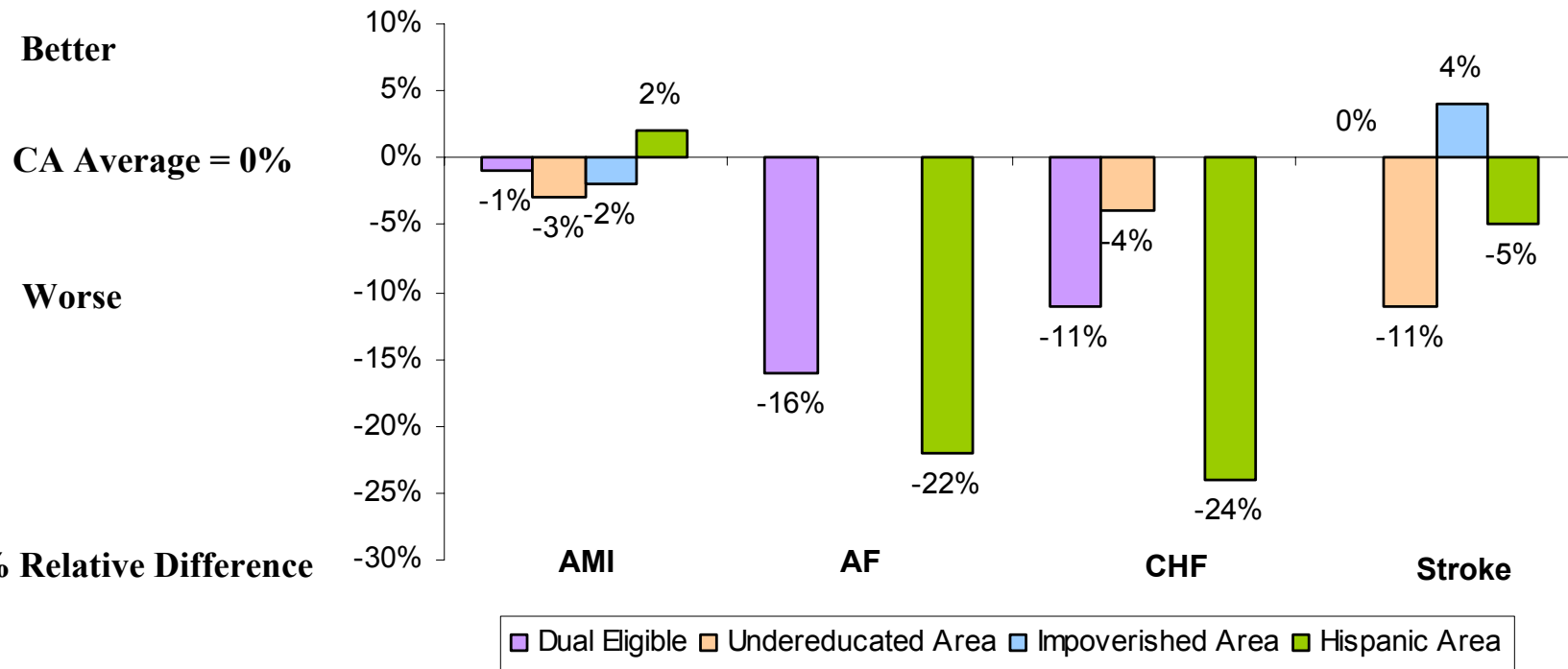
- **Congestive Heart Failure**
 - Prescription of ACE inhibitors for all patients with significantly reduced left ventricular ejection fraction unless contraindicated
 - Prescription of hydralazine and isosorbide dinitrate in patients who cannot take ACE inhibitors
 - Prescription of diuretic drugs for patients with fluid overload
- Stroke
 - Prescription of antithrombotic drugs.

African Americans and Asians *much less likely* to get stroke medication upon discharge for atrial fibrillation.



Other groups near average for other cardiovascular indicators studied.

Inpatient Care for Patients with Lower SES



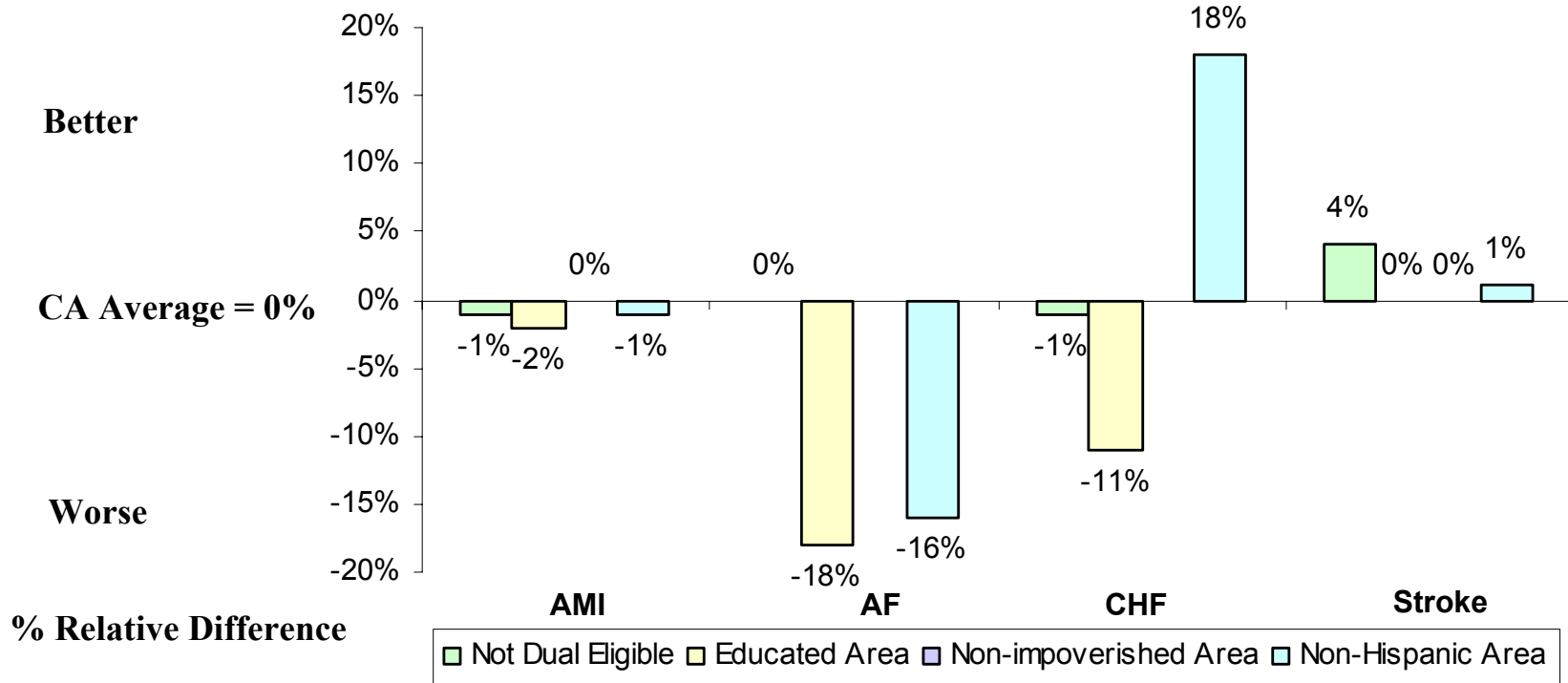
Note: Some atrial fibrillation and CHF values unreported due to insufficient sample size.

Performance on Quality Indicators by Race

Quality Indicator	Caucasian	Asian	African American	Hispanic	California	U.S.
Acute myocardial infarction, 2000						
Aspirin within 24 hrs of admission	84	90	84	80	88	84
Aspirin at discharge	81	84	83	80	82	85
Beta-blockers within 24 hrs of admission	60	81	72	64	63	64
Beta-blockers at discharge	58	80	71	64	61	72
ACE Inhibitor at discharge	76	80	62	59	74	71
Smoking cessation advice to smokers at discharge	32	26	41	25	31	40
Atrial fibrillation, 2000						
Warfarin at discharge	53	28	13	56	51	55
Congestive heart failure, 2000						
LVEF assessment	71	73	70	85	72	65
Appropriate ACE inhibitor use	82	88	88	92	84	69
Stroke, 2000						
Antithrombotic at discharge	74	69	68	68	73	83

Most ethnic groups, especially African-Americans, had lower percentages of appropriate drugs at discharge for atrial fibrillation than national average.

Inpatient Care For Patients With *Higher* SES



Note: Some atrial fibrillation and CHF values unreported due to insufficient sample size.

Summary of Findings

- Beneficiaries statewide were more likely to be hospitalized for stroke than for most other conditions and stroke care was consistently one of the top three areas of performance among all indicators and, in some instances, surpassed national rates.
- African American beneficiaries were much more likely to die from stroke than all other groups in California.
- In some areas, particularly stroke, low socioeconomic status actually increases the likelihood that beneficiaries receive appropriate care when hospitalized.
- Racial differences reveal more variation than SES or geographic factors on cardiovascular quality indicators
- Performance on the atrial fibrillation indicator for both Asians and African Americans was far below the state average
- Quality indicator rates for acute myocardial infarction were generally high for all groups, including those in lower socioeconomic areas. Rates were usually close to, or exceeded, national levels.
- Notable outcomes related to acute myocardial infarction included the lowest rates of hospitalization, 30-day readmission and long-term mortality among African Americans
- Levels of appropriate treatment of congestive heart failure exceeded national rates.

Questions for Further Study

- What is the basis for the disparity in atrial fibrillation treatment for African Americans?
- What is the basis for California's across-the-board poor performance on the stroke care Quality indicator?
- What other systemic changes are needed to reduce disparities in mortality rates from cardiovascular disease?
- Do the Quality indicators studied offer a sufficient explanation for the mortality rate disparities?