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**California Children’s Services and  
Whole Child Model Quality Performance Dashboard**



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**Introduction**

California Children's Services (CCS) and Whole Child Model (WCM) Quality Performance Dashboard is intended to illustrate the quality of care for the CCS and WCM population in the Medi-Cal program through selected Center for Medicare and Medicaid (CMS) child core set metrics. This Dashboard contains data extracted from Medi-Cal administrative data for dates of service January 2020 to December 2020 (Measurement Year 2020). Data are reported at the state, program, plan, and county levels for various services.

**Background**

The California Children's Services (CCS) is a state program that provides diagnostic and treatment services, medical case management, and physical and occupational therapy services to children under age 21 with CCS-eligible medical conditions. Examples of CCS-eligible medical conditions include, but are not limited to, chronic medical conditions such as cystic fibrosis, hemophilia, cerebral palsy, heart disease, cancer, traumatic injuries, and infectious diseases producing major sequelae.

The CCS program is administered as a partnership between county health departments and the California Department of Health Care Services (DHCS). Currently, approximately 70 percent of CCS-eligible children are also Medi-Cal eligible. This report is limited to children who are Medi-Cal eligible and otherwise meet the inclusion/exclusion criteria for specific quality measures.

The Whole Child Model (WCM) program is for children and youth under 21 years of age who meet the eligibility requirements of CCS and are enrolled in a Medi-Cal Managed Care Health Plan (MCP) under a County Organized Health System (COHS) or Regional Health Authority (RHA). Senate Bill (SB) 586 authorizes DHCS to establish the WCM program in designated COHS or RHA counties to incorporate CCS program covered services for Medi-Cal eligible CCS children and youth into a MCP contract. WCM currently operates in 21 counties with 5 participating MCPs. The counties are listed here: [CCS Whole Child Model \(ca.gov\)](https://www.dhcs.ca.gov/Programs/Pages/CCS-Whole-Child-Model.aspx) and in Appendix B.

The goals of the WCM program are to:

- Improve the coordination of primary and preventive services with specialty care services, medical therapy units, Early and Periodic Screening, Diagnosis, and Treatment (EPSDT), long-term services and supports (LTSS), regional center



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- services, and home- and community-based services using a child and youth and family-centered approach.
- Maintain or exceed CCS program standards and specialty care access, including access to appropriate subspecialties.
  - Provide for the continuity of child and youth access to expert CCS dedicated case management and care coordination, provider referrals, and service authorizations.
  - Improve the transition of youth from CCS to adult Medi-Cal managed systems of care through better coordination of medical and nonmedical services and supports and improved access to appropriate adult providers for youth who age out of CCS.
  - Identify, track, and evaluate the transition of children and youth from Classic CCS to the WCM program to inform future CCS program improvements.

### Data and Analysis Notes

This Dashboard reports on quality measures calculated from administrative data with dates of service January 2020 to December 2020 (Measurement Year 2020). In 2020, the COVID-19 pandemic significantly impacted health care utilization, including the preventive care services and emergency department visits included in this report.

Except for the COVID-19 vaccination rates, technical specifications for the measures in this report were based on the Centers for Medicare and Medicaid Services (CMS) Core Set of children's health care quality measures, applied to Medi-Cal administrative data. The COVID-19 vaccination rates were based on data from the California Department of Public Health (CDPH) Immunization Registry (CAIR2) registry linked to Medi-Cal enrollment data.

For this analysis, CCS program status was identified as described below:

- Total CCS: beneficiaries with CCS aid codes.
- WCM: beneficiaries with a CCS condition aid code who were also identified as being in the WCM program based on the beneficiary's enrolled plan, i.e., CalOptima, CenCal Health, Central California Alliance for Health, Health Plan of San Mateo, and Partnership Health Plan of California or on the county of priority aid code being in a WCM county, if the beneficiary was in the fee-for-service delivery system.
- Classic CCS: beneficiaries with CCS aid codes who are not identified as WCM.



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- Non-CCS: certified eligible Medi-Cal beneficiaries who did not meet CCS and WCM program criteria.

Summary tables and frequency charts were generated to describe and compare preventive service and acute care service utilization among CCS and non-CCS members. Comparisons described in this report were not tested for statistical significance. See Appendix B for CCS aid code and WCM plan code value sets.

### Childhood Immunization Status (CIS-CH): by Child's Second Birthday

**Table 1. Percentage Up to Date on Recommended Immunizations by their Second Birthday (MY2020)**

Measure	WCM	Classic CCS	Total CCS	Non-CCS	2020 Medi-Cal Rate*	2019 Medi-Cal Rate*
(CIS-CH) - DTaP	65.8	54.9	56.7	55.8	70.2	74.1
(CIS-CH) - IPV	78.6	69.4	70.9	70.3	85.2	85.1
(CIS-CH) - MMR	85.8	80.9	81.7	79.9	86.1	87.1
(CIS-CH) - HiB	79.8	73.5	74.5	73	84.5	84.8
(CIS-CH) - HepB	68.3	56.9	58.7	58.6	84.1	84.2
(CIS-CH) - VZV	83.3	77.8	78.7	76.8	85.0	86.5
(CIS-CH) - PCV	67.7	55.7	57.6	56.6	71.6	73.7
(CIS-CH) - HepA	83.6	81.1	81.5	79.4	83.6	85.2
(CIS-CH) - Rotavirus	59.5	50.3	51.7	54.7	67.0	66.9
(CIS-CH) - Influenza	58.6	47.8	49.5	41.9	47.7	46.4
(CIS-CH) - Combo 10	32.5	20.2	22.2	21.4	35.5	35.6

\*= 2019 and 2020 Medi-Cal rates were adjusted using plan-reported Managed Care Accountability Set (MCAS) performance rates and are not comparable with the CCS program rates calculated in this Dashboard report.

#### Comparison Sets:

	= WCM compared to Classic CCS		green shading = rate is higher in comparison set
	= Total CCS compared to Non-CCS		orange shading = rate lower in comparison set
	= 2020 CA Medi-Cal compared to 2019 CA Medi-Cal		

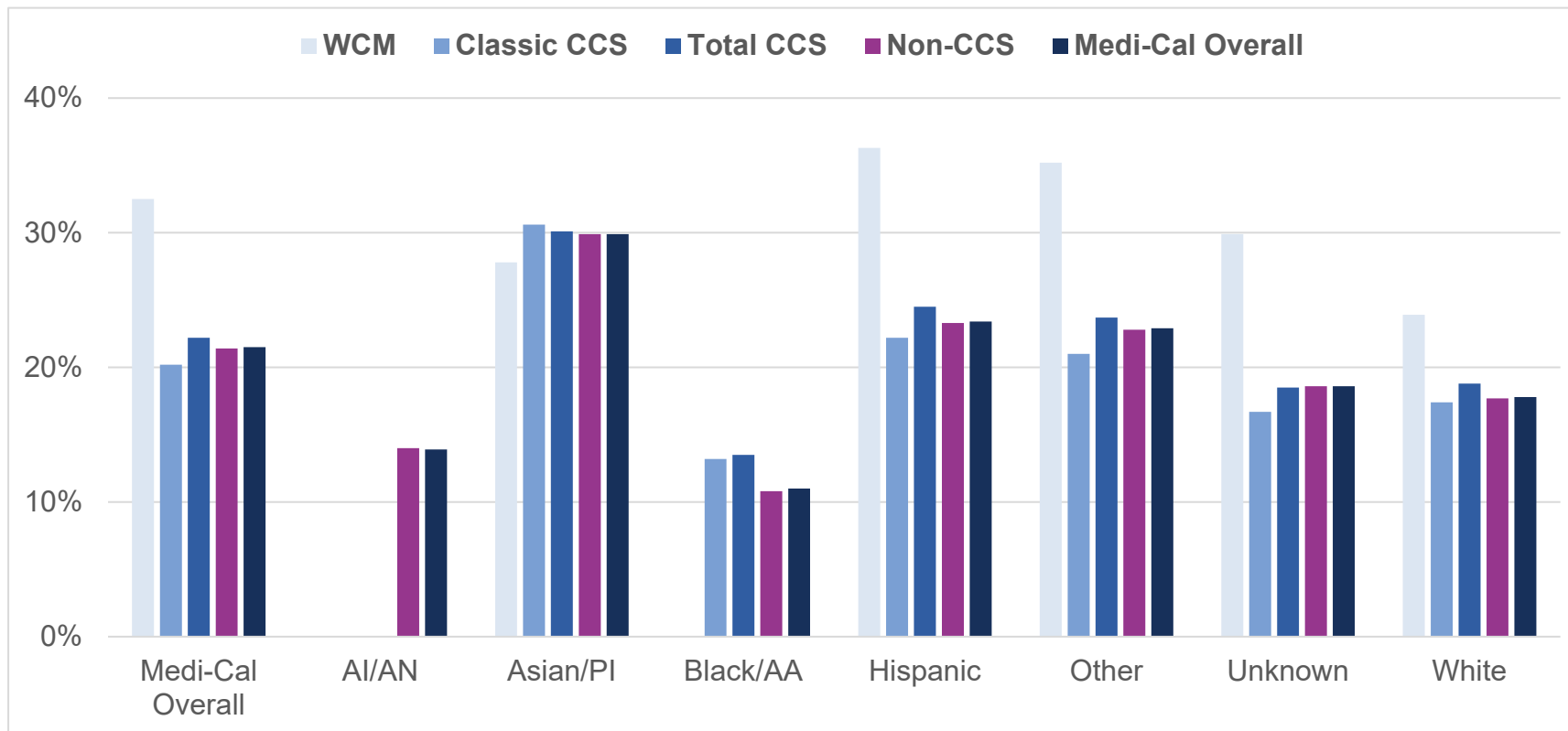
Table 1 - Childhood Immunization Status (CIS) – shows the percentage of children who are up to date on 10 recommended vaccines by their second birthday in measurement year (MY) 2020. Being up to date on immunizations is a key indicator of the continuity of primary care. DHCS reports on 10 individual vaccine rates and on the combination 10 (Combo 10) vaccine rate. Most of the overall Medi-Cal individual vaccine rates were lower in MY2020 compared to MY2019, likely associated with COVID-19 disruptions in preventive care services.

Vaccination rates were higher for children in the WCM program, compared to children in Classic CCS. Vaccination rates were higher for children in CCS programs overall, compared to non-CCS children, except for the Rotavirus vaccine.

Overall, 32.5 percent of the children enrolled in WCM were up to date for the Combo 10 series, compared to 20.2 percent of children enrolled in Classic CCS, 22.2 percent of Total CCS children (enrolled in either Classic CCS or WCM), and 21.4 percent of non-CCS children.

Of note, the overall Medi-Cal rates in Table 1 were based on plan-reported performance rates in the Managed Care Accountability Set (MCAS) and are not directly comparable with the CCS rates calculated for this report, which were based on DHCS administrative data. The administrative data used by this report was supplemented with CDPH CAIR2 data but did not include the San Diego Regional Immunization Registry (SDIR) or CAIR San Joaquin (RIDE) data.

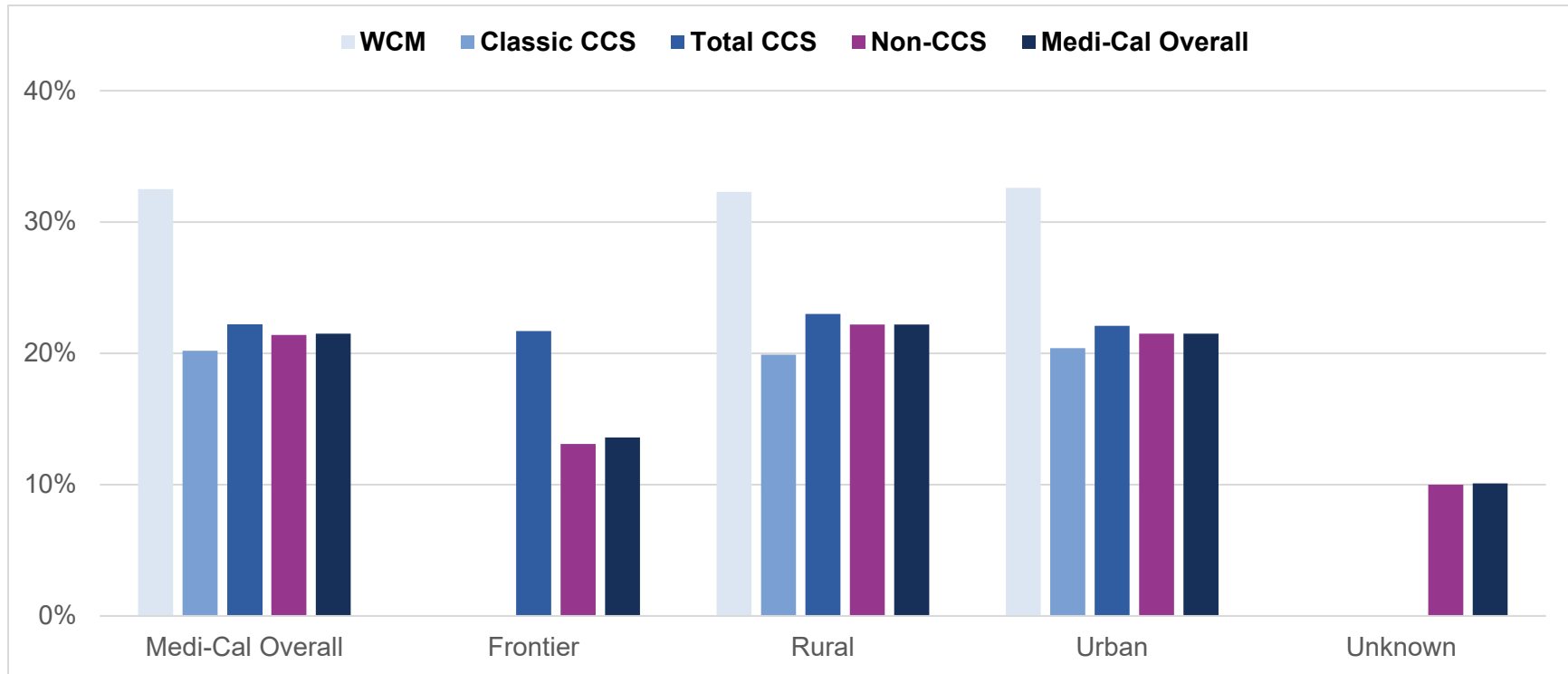
**Figure 1. Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Race/Ethnicity (MY2020)**



Note: Data not shown are suppressed due to small counts.

Figure 1 - Childhood Immunization Status (CIS) – shows the percentage of children who are up to date on Combo 10 vaccines by their second birthday in measurement year (MY) 2020 – by race/ethnicity and CCS program status. Black/African American (Black/AA) and American Indian/Alaskan Native (AI/AN) children had lower Combo 10 vaccine rates than other race/ethnicities in all programs. WCM Combo 10 rates were lower than Classic CCS rates for Asian/Pacific Islander children but were higher for all other racial/ethnic groups. WCM Combo 10 rates were highest for Hispanic children followed by children reported as “Other”, Asian/Pacific Islander, and White. The difference between Total CCS and non-CCS Combo 10 immunization rates was largest for Black/African American children.

**Figure 2. Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Population Density (MY2020)**

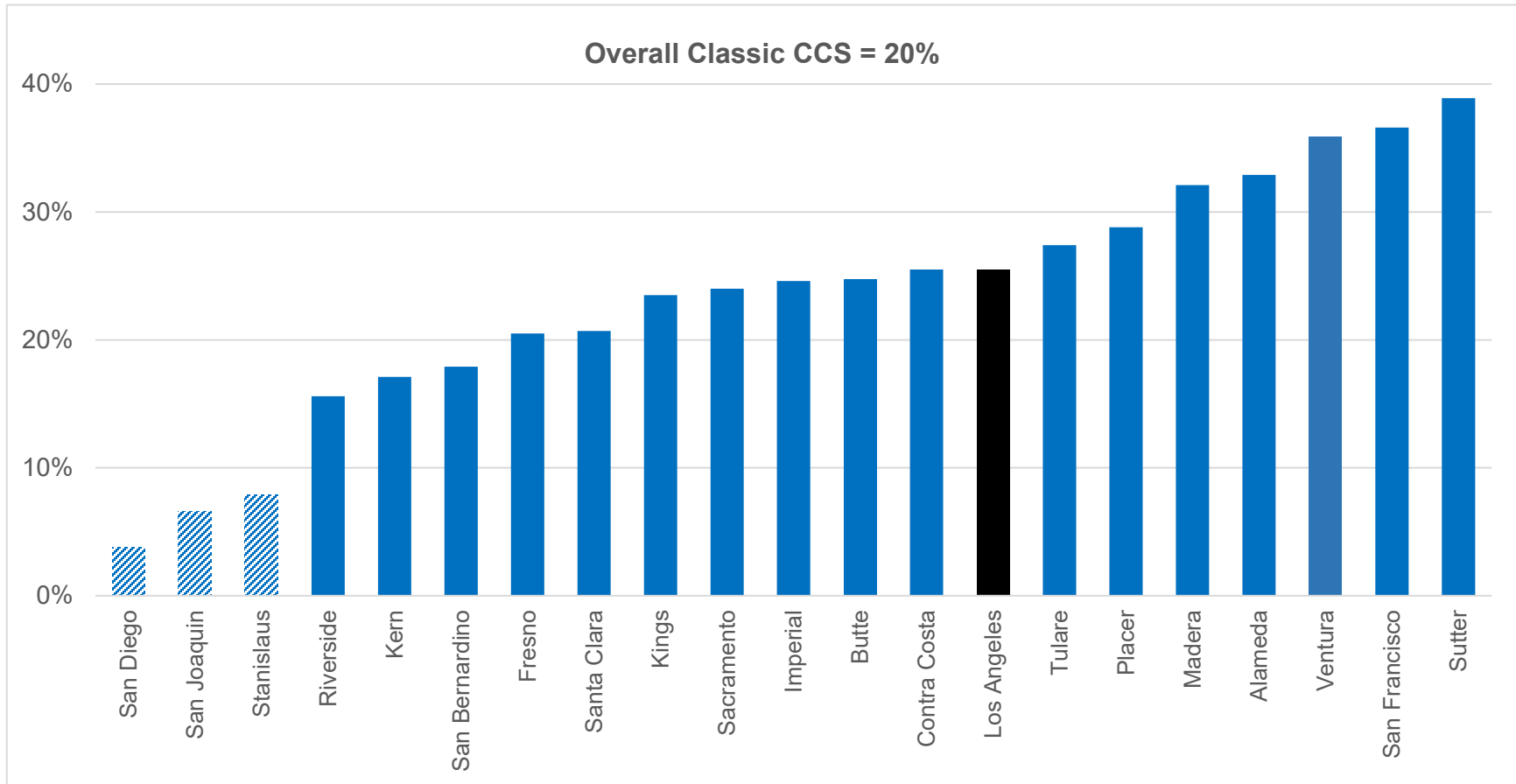


Note: Data not shown are suppressed due to small counts.

Figure 2 - Childhood Immunization Status (CIS) – shows the percentage of children who are up to date on Combo 10 vaccines by their second birthday in measurement year (MY) 2020 by population density and CCS program status. Population density is based on Medical Service Study Areas (MSSA) and describes the number of people per square mile within one or more census tracts. In frontier areas, 22 percent of Total CCS children were up to date on Combo 10 immunizations compared to 13 percent of non-CCS children. In rural and urban areas, Total CCS rates were only slightly higher than non-CCS rates, but WCM children had higher Combo 10 rates compared to Classic CCS children (approximately 32 and 20 percent, respectively).



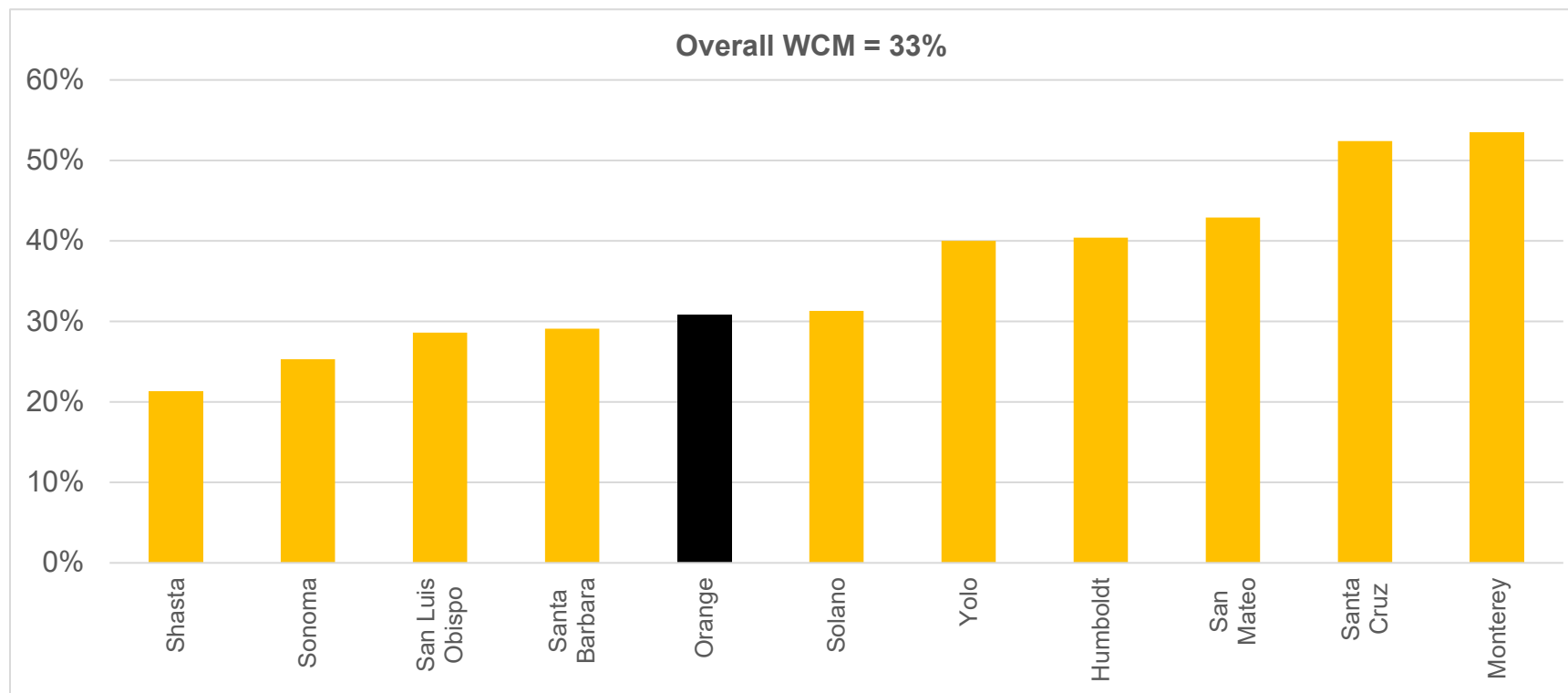
Figure 3a. Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Classic CCS County Status (MY2020)



Note: Counties are not shown in chart if fewer than 11 (1-10) events (numerator) / population (denominator) were reported or complementary suppression was required to prohibit recalculation.

= County with largest population
  = County data is incomplete – 2020 rates do not include San Diego (SDIR) or San Joaquin (RIDE) CAIR data.

**Figure 3b. Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by WCM County Status (MY2020)**



Note: Counties are not shown in chart if fewer than 11 (1-10) events (numerator) / population (denominator) were reported or complementary suppression was required to prohibit recalculation.

■ = County with largest population

Figure 3a and 3b - Childhood Immunization Status (CIS) – shows the percentage of children who are up to date on Combo 10 vaccines by their second birthday in measurement year (MY) 2020 by county and CCS program status. The Combo 10 vaccination rate for children enrolled in Classic CCS was 20 percent, compared to the Combo 10 vaccination rate of 33 percent for children enrolled in WCM. In the chart, bars with hatch marks indicate incomplete data (counties where rates were based on administrative data only and do not include data from the statewide immunization registry). Black bars indicate the counties with the largest populations, which may drive the overall WCM and Classic CCS rates.

**Ambulatory Care: Emergency Department Visits per 1,000 Member Months (AMB-CH): Ages 0 - 19 Years**
**Table 2: Emergency Department Visits per 1,000 Member Months Ages 0 - 19 Years (MY2020)**

Measure	WCM	Classic CCS	Total CCS	Non-CCS	2020 Medi-Cal Rate	2019 Medi-Cal Rate	2019 National Median
(AMB-CH) Ages 0-19	44.0	42.0	42.3	20.4	21.4	37.4	43.2
(AMB-CH) Less than Age 1	86.6	70.3	72.4	43.4	45.5	80.0	NA
(AMB-CH) Ages 1-9	45.1	41.8	42.4	21.6	22.5	42.0	NA
(AMB-CH) Ages 10-19	38.3	37.6	37.7	17.3	18.2	29.0	NA

## Comparison Sets:



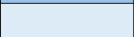

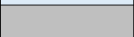
	= WCM compared to Classic CCS		green shading = ED rate is better (lower) in comparison set
	= Total CCS compared to Non-CCS		orange shading = ED rate is higher in comparison set
	= 2020 CA Medi-Cal compared to 2019 CA Medi-Cal		

Table 2 shows the number of emergency department (ED) visits per 1,000 member months (MM) for children ages 0 to 19 years during MY2020. The Medi-Cal ED visit rate in 2019 for ages 0-19 was lower than the national median rate (37 and 43 visits per 1,000 MM, respectively). The overall Medi-Cal ED visit rate decreased between 2019 and 2020 for all ages, likely associated with the COVID-19 pandemic.

Children in Total CCS had higher rates compared non-CCS children, possibly reflecting that CCS populations have more complex care needs or CCS families may be more motivated to go to the ED because of their child's increased risk. Children in Classic CCS had a lower ED visit rates compared to WCM children. Across all programs, the highest ED visit rates per 1,000 MM were for children less than one year old (46 – 87 per 1,000 MM), followed by children who were 1 - 9 years old (23 - 45 per 1,000 MM), and children who were 10 - 19 years old (18 – 38 per 1,000 MM).

Figure 4: Emergency Department Visits Per 1,000 Member Months Ages 0 - 19 Years - by Race/Ethnicity (MY2020)

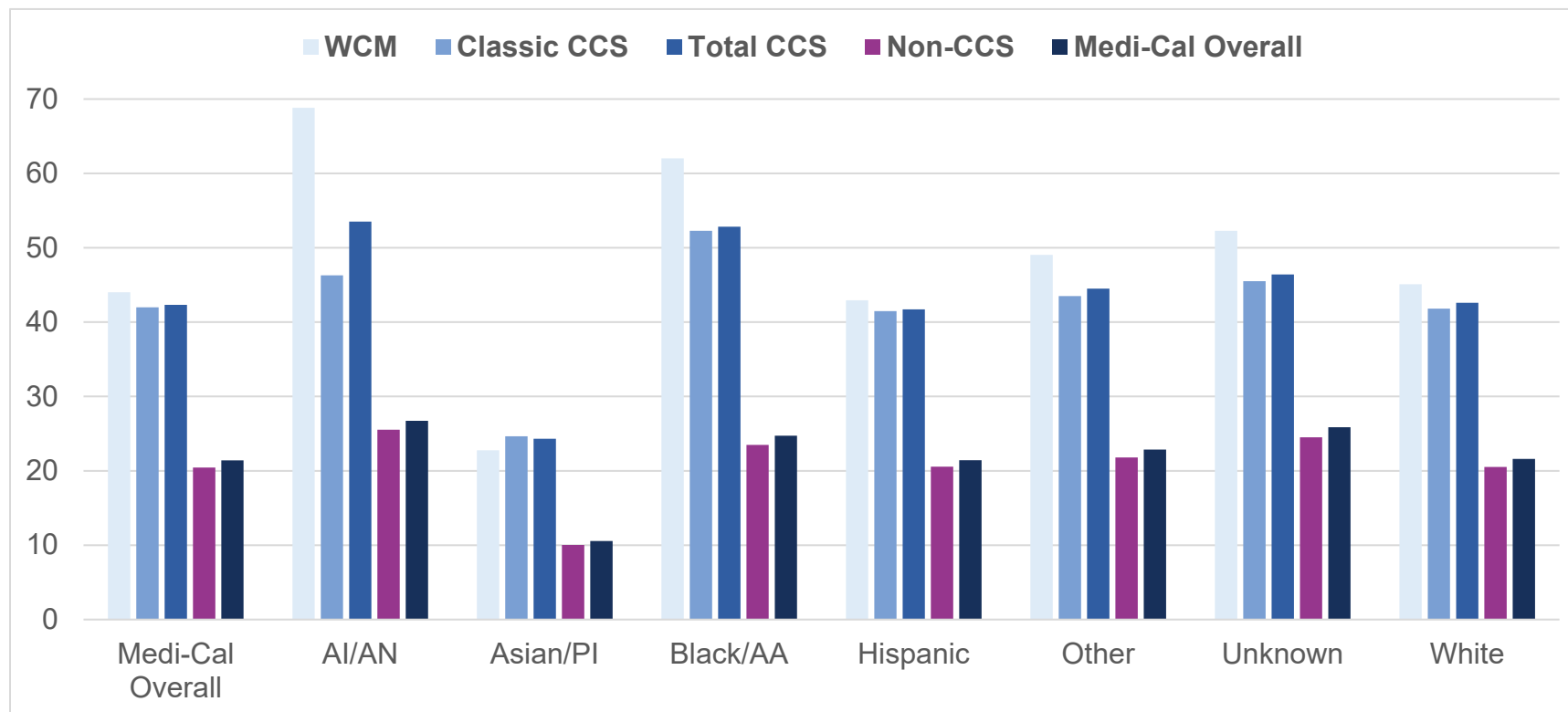


Figure 4 shows the number of emergency department (ED) visits per 1,000 member months (MM) for children ages 0 to 19 years during MY2020 by race/ethnicity and CCS program status. Across all programs, Asian/Pacific Islander children had the lowest ED visits rates and Black/African American and American Indian/Alaskan Native children had the highest ED visit rates compared to other race/ethnicities. Children in Classic CCS had lower ED visit rates than WCM children, across all race/ethnicities, except for Asian/Pacific Islander children. American Indian/Alaskan Native children had the highest WCM ED visit rates (69 per 1,000 MM) compared to other racial/ethnic groups. The difference between WCM and Classic CCS ED visit rates was largest for American Indian/Alaskan Native and Black/African American children. Among Classic CCS children, the ED visit rate was highest for Black/African American and American Indian/Alaskan Native children (52 and 25 per 1,000 MM), respectively.

Figure 5: Emergency Department Visits Per 1,000 Member Months Ages 0 - 19 Years - by Population Density (MY2020)

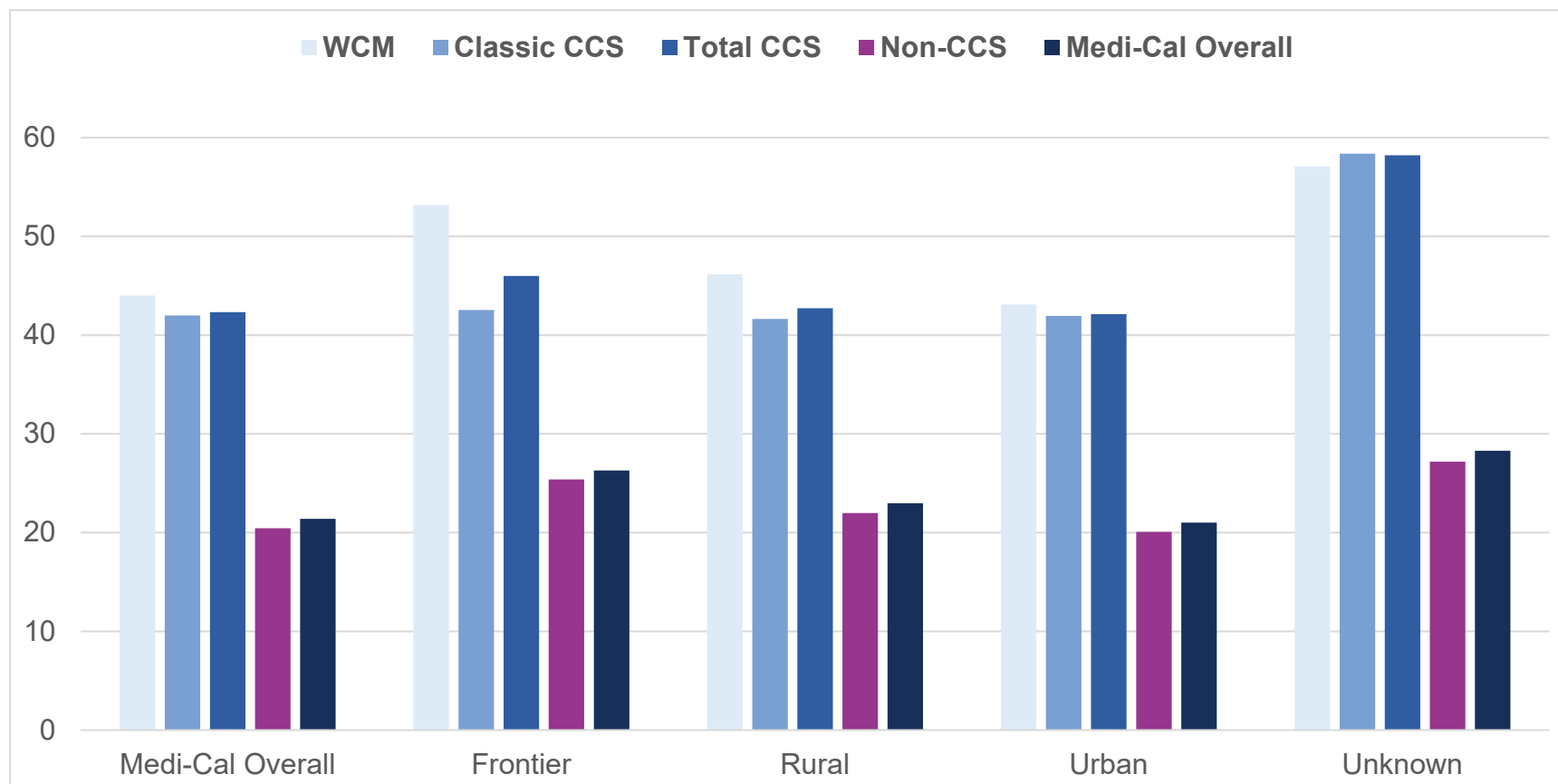
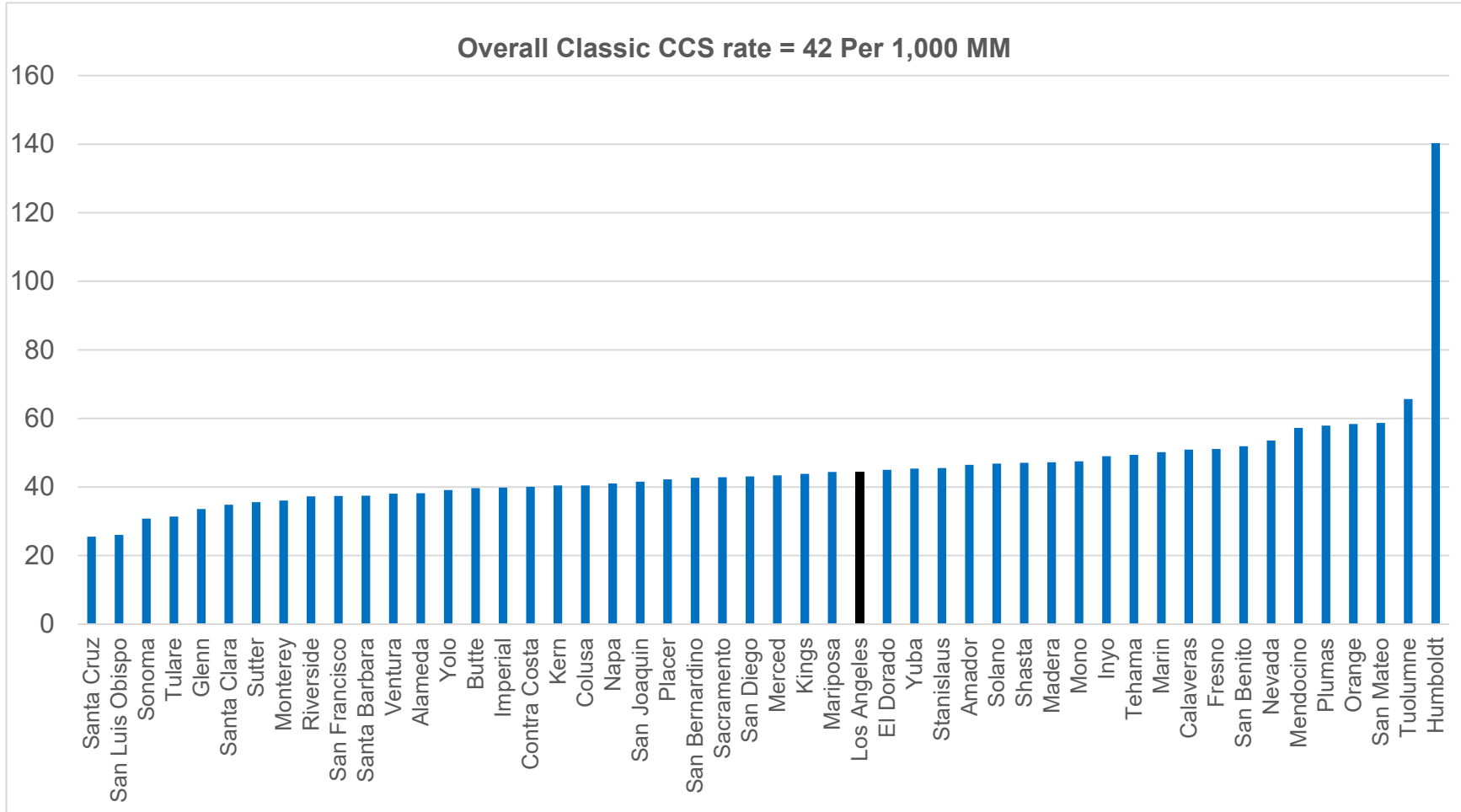


Figure 5 shows the number of emergency department (ED) visits per 1,000 member months (MM) for children ages 0 to 19 years during MY2020 by population density and CCS program status. WCM ED visit rates were higher in frontier areas (53 per 1,000 MM) compared to rates in rural and urban areas (46 and 42 per 1,000 MM, respectively). Classic CCS ED visit rates across population density groups were similar, ranging from 42 to 43 visits per 1,000 MM, except for areas with “unknown” status. Total CCS ED rates, across all groups, were twice as high as non-CCS rates.

Figure 6a: Emergency Department Visits Per 1,000 Member Months (MM) Ages 0 - 19 Years - by Classic CCS County Status (MY2020)



Note: Counties are not shown in chart if fewer than 11 (1-10) events (numerator) / population (denominator) were reported or complementary suppression was required to prohibit recalculation.

█ = County with largest population

Figure 6b: Emergency Department Visits Per 1,000 Member Months (MM) Ages 0 - 19 Years - by WCM County Status (MY2020)

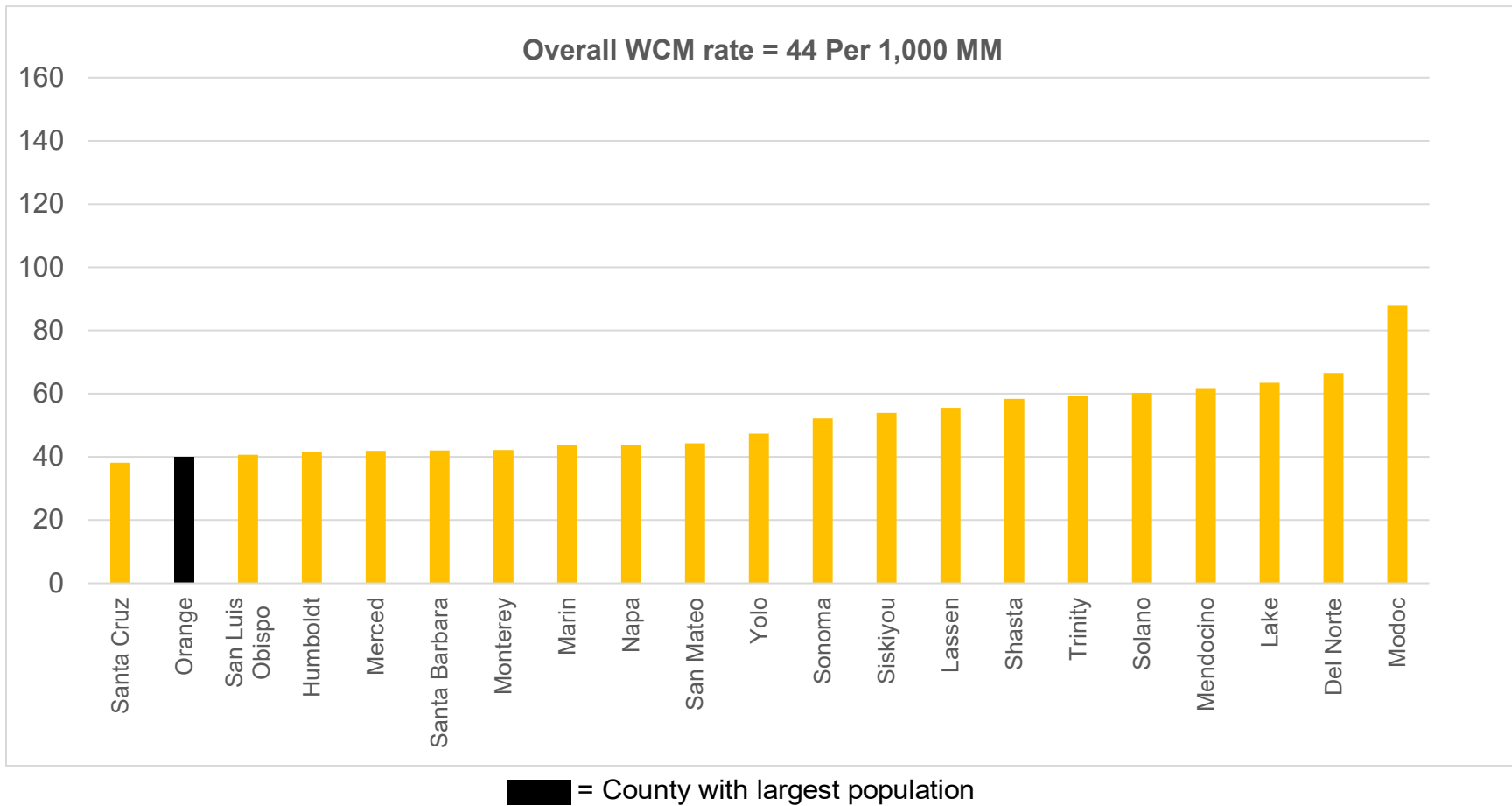




Figure 6a and 6b show the number of emergency department (ED) visits per 1,000 member months (MM) for children ages 0 to 19 years during MY2020 – by county and CCS program status. The overall ED visit rates for children enrolled in Classic CCS and WCM model counties were similar (42 versus 44 visits per 1,000 MM, respectively).

**COVID-19 Vaccinations for Medi-Cal Beneficiaries: Ages 5 - 20 Years**
**Table 3: COVID-19 Vaccinations: Ages 5 - 20 Years**  
**Percentage who Received at least One Dose (as of May 31, 2022)**

Measure	WCM	Classic CCS	Total CCS	Non-CCS	CA Medi-Cal Rate
Age Group					
5 – 11 Years	35.2%	32.3%	32.8%	26.6%	26.7%
12 – 17 Years	62.1%	60.2%	60.5%	55.0%	55.2%
18 – 20 Years	69.0%	66.9%	67.3%	62.0%	62.2%
Total (5 - 20 Years)	53.7%	51.3%	51.7%	43.9%	44.1%

**Comparison Sets:**

	= WCM compared to Classic CCS
	= Total CCS compared to Non-CCS



	green shading = rate is higher in comparison set
	orange shading = rate is lower in comparison set

Table 3 shows the percentage of Medi-Cal beneficiaries aged 5 - 20 years old who received at least one dose of a COVID-19 vaccination as of May 31, 2022. Overall, 44 percent of Medi-Cal members ages 5 to 20 received at least one dose of a COVID-19 vaccination. The highest vaccination rates were for young adults 18 - 20 years old (62 – 69 percent), followed by children 12 - 17 years old (55 – 62 percent), and children 5 - 11 years old (27 – 35 percent). WCM vaccination rates were higher than Classic CCS (54 compared to 51 percent, overall), and Total CCS vaccination rates were higher than non-CCS rate (52 compared to 44 percent, overall). The higher CCS rates may be associated with CCS beneficiaries having moderately or severely immunocompromised systems – COVID-19 vaccinations are strongly recommended for populations with weakened immune systems because they have an increased risk of severe COVID-19 illness and/or death.



**Figure 7: COVID-19 Vaccinations: Ages 5 - 20 Years**  
**Percentage who Received at least One Dose by Race/Ethnicity (as of May 31, 2022)**

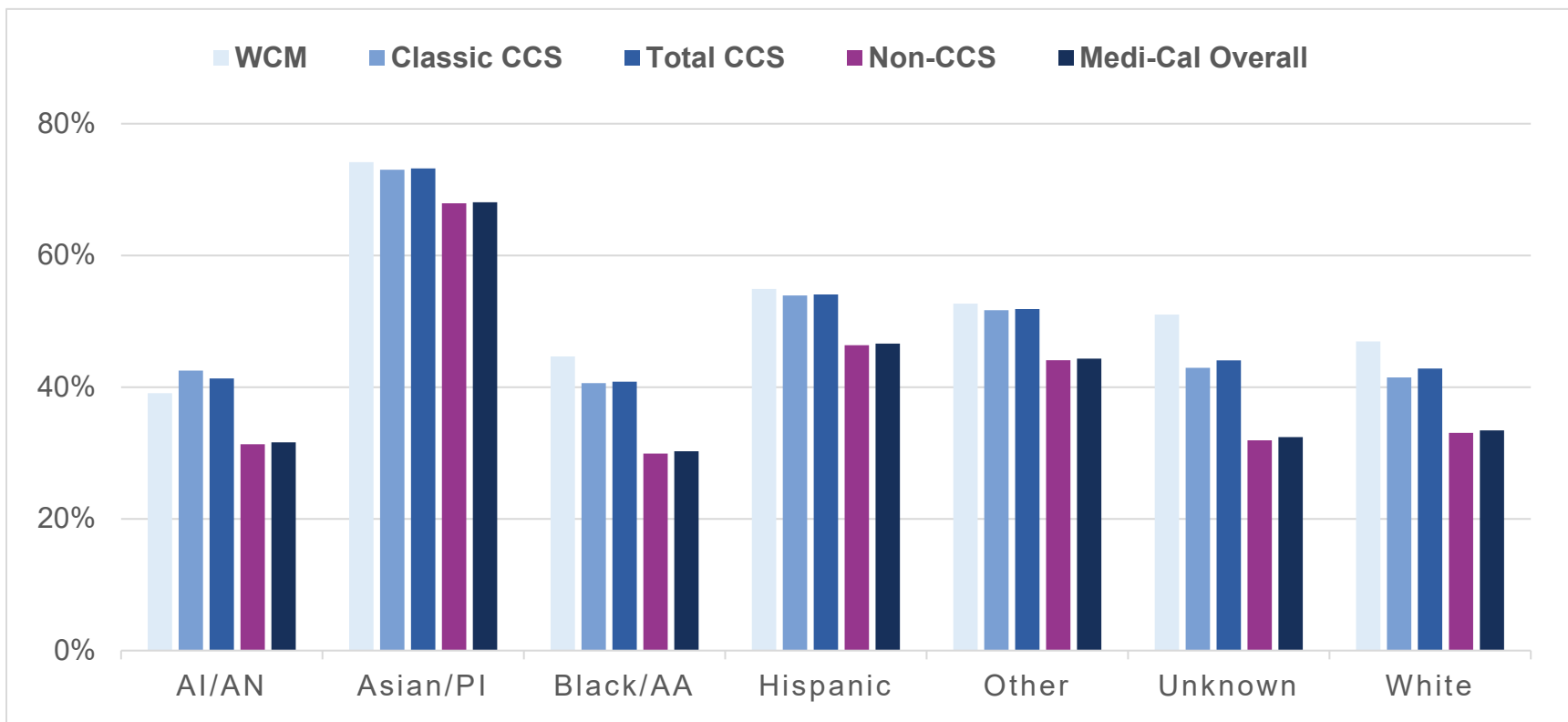
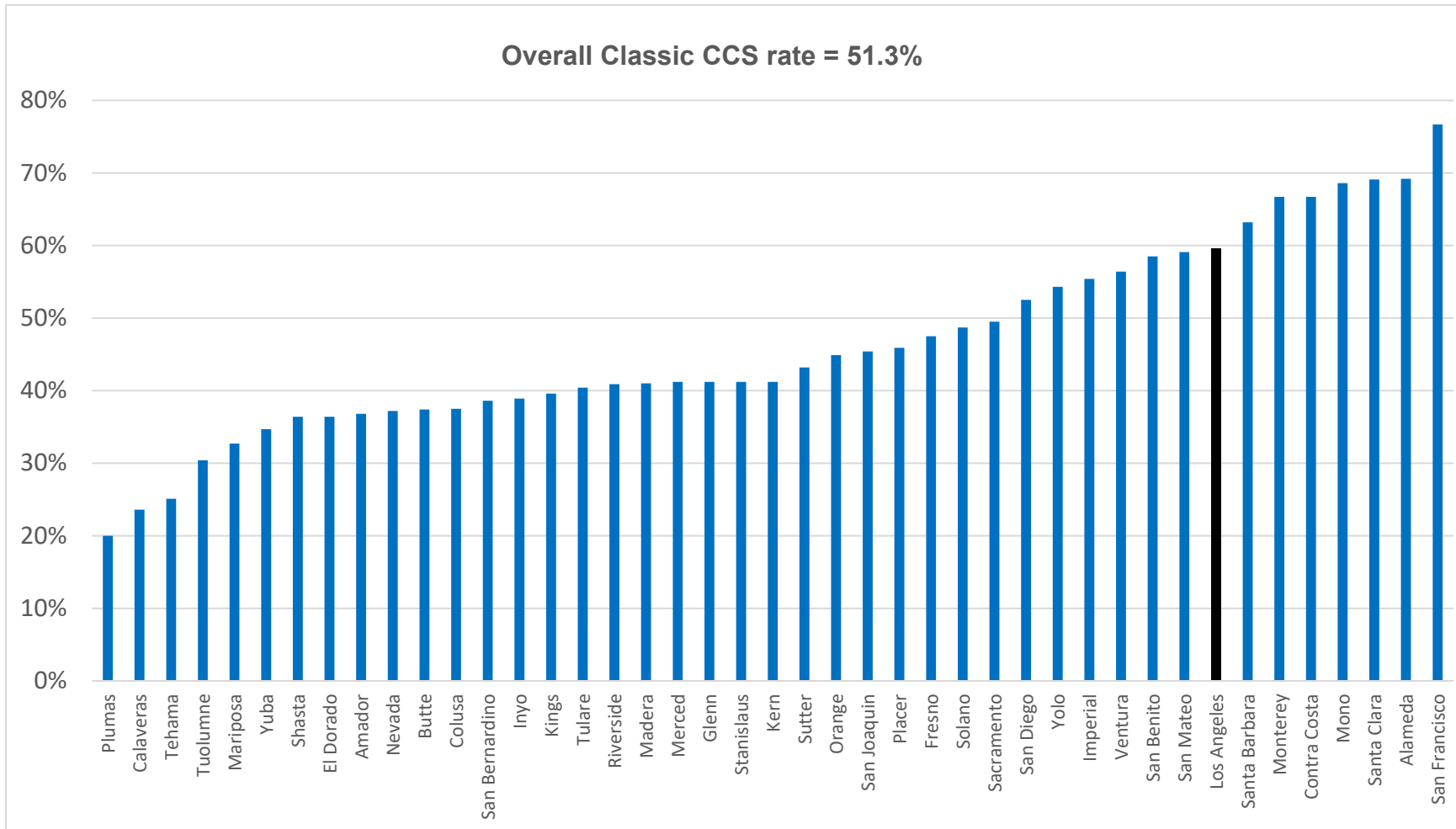


Figure 7 shows the percentage of Medi-Cal beneficiaries aged 5 - 20 years old who received at least one dose of a COVID-19 vaccination as of May 31, 2022, by race/ethnicity and CCS program status. Total CCS COVID-19 vaccination rates were higher than the non-CCS vaccination rates across all racial/ethnic groups. COVID-19 vaccination rates were highest among Asian/Pacific Islander children and lowest for Black/African American and American Indian/Alaska Native children, across all CCS programs/status; the difference between Total CCS and non-CCS vaccination rates were smallest for Asian/Pacific Islander children. COVID-19 vaccination rates were lower for American Indian/Alaskan Native children in WCM compared to Classic CCS (39 and 43 percent, respectively); across all other racial/ethnic groups, WCM vaccination rates were similar to, or higher than, Classic CCS.

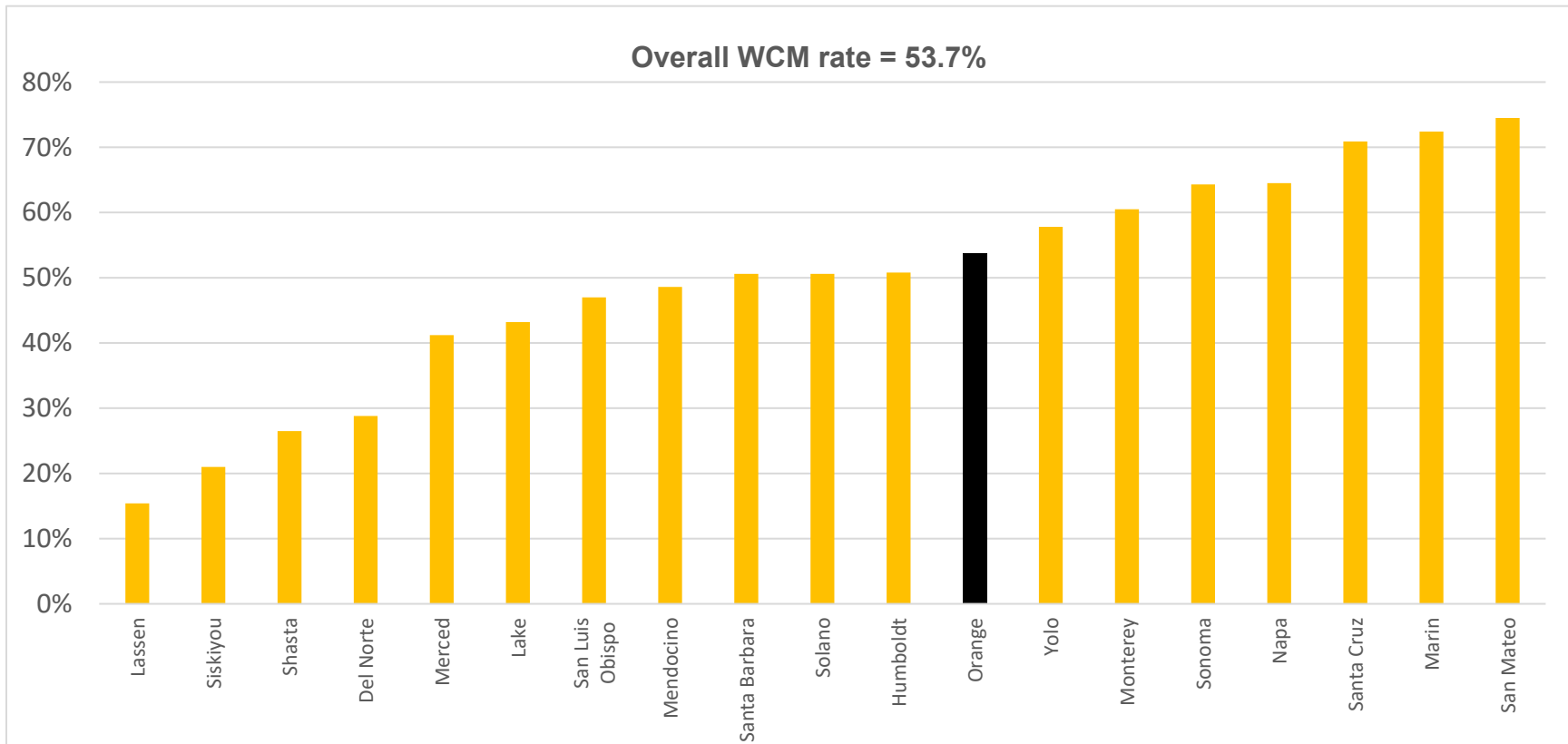
**Figure 8a: COVID-19 Vaccinations: Ages 5 - 20 Years**  
**Percentage who Received at least One Dose by Classic CCS County Status (as of May 31, 2022)**



Note: Counties are not shown in chart if fewer than 11 (1-10) events (numerator) / population (denominator) were reported or complementary suppression was required to prohibit recalculation.

■ = County with largest population

**Figure 8b: COVID-19 Vaccinations: Ages 5 - 20 Years**  
**Percentage who Received at least One Dose by WCM County Status (as of May 31, 2022)**



Note: Counties are not shown in chart if fewer than 11 (1-10) events (numerator) / population (denominator) were reported or complementary suppression was required to prohibit recalculation.

■ = County with largest population

Figure 8a and 8b shows the percentage of Medi-Cal beneficiaries aged 5 - 20 years old who received at least one dose of a COVID-19 vaccination as of May 31, 2022 – by county and CCS program status. The COVID-19 vaccination rate for children enrolled in Classic CCS was 51 percent, compared to the vaccination rate of 54 percent for children enrolled in WCM.

## Appendix A. Tables and Figures List

### Immunizations

Table 1	Percentage Up to Date on Recommended Immunizations by their Second Birthday
Figure 1	Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Race/Ethnicity
Figure 2	Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Population Density
Figure 3a	Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by Classic CCS County Status
Figure 3b	Percentage Up to Date on Combination 10 Immunizations by their Second Birthday by WCM County Status

### Emergency Department Visits

Table 2	Emergency Department Visits Per 1,000 Member Months Ages 0-19
Figure 4	Emergency Department Visits Per 1,000 Member Months Ages 0-19 by Race/Ethnicity
Figure 5	Emergency Department Visits Per 1,000 Member Months Ages 0-19 by Population Density
Figure 6a	Emergency Department Visits Per 1,000 Member Months Ages 0-19 by Classic CCS County Status
Figure 6b	Emergency Department Visits Per 1,000 Member Months Ages 0-19 by WCM County Status

### COVID-19 Vaccinations

Table 3	Percentage of Medi-Cal Beneficiaries ages 5 to 20 Who Received At Least One Dose of a COVID-19 Vaccination
Figure 7	Percentage of Medi-Cal Beneficiaries ages 5 to 20 Who Received At Least One Dose of a COVID-19 Vaccination by Race/Ethnicity
Figure 8a	Percentage of Medi-Cal Beneficiaries ages 5 to 20 Who Received At Least One Dose of a COVID-19 Vaccination by Classic CCS County Status
Figure 8a	Percentage of Medi-Cal Beneficiaries ages 5 to 20 Who Received At Least One Dose of a COVID-19 Vaccination by WCM County Status

**Appendix B. California Children's Services (CCS) and Whole Child Model (WCM) Value Sets**

<b>Aid Codes Indicating CCS Participation</b>	
<b>Code</b>	<b>AID Code Name</b>
9D	CCS Only - Child Enrolled in HCP
9K	CCS Eligible
9M	CCS Med Therapy ONLY
9N	CCS Case Mgt
9R	CCS - Healthy Families Child
9U	CCS - Healthy Families Child-NPSA
9V	CCS Med Elig PPCW Particip (Not Financially Elig to CCS)
9W	CCS Med Elig PPCW Particip (Financially Elig to CCS)

<b>Plan Codes indicating WCM Participation</b>		
<b>Code</b>	<b>Plan Code Name</b>	<b>County</b>
501	CenCal Health - San Luis Obispo	San Luis Obispo
502	CenCal Health - Santa Barbara	Santa Barbara
503	Health Plan of San Mateo	San Mateo
504	Partnership HP of CA/Solano	Solano
505	Santa Cruz Co Health Organization	Santa Cruz
506	Central California Alliance for Health/Santa Cruz	Santa Cruz
507	CalOPTIMA / Orange	Orange
508	Partnership HP of CA/Napa	Napa
509	Central California Alliance for Health/Monterey	Monterey
510	Partnership HealthPlan of CA/Yolo	Yolo
511	Partnership HealthPlan of CA/Marin	Marin
512	Partnership HealthPlan of CA/Lake	Lake
513	Partnership HealthPlan of CCA/Mendocino	Mendocino
514	Partnership HealthPlan of CA/Sonoma	Sonoma
517	Partnership HealthPlan of CA/Humboldt	Humboldt
518	Partnership HealthPlan of CA/Lassen	Lassen
519	Partnership HealthPlan of CA/Modoc	Modoc
520	Partnership HealthPlan of CA/Shasta	Shasta
521	Partnership HealthPlan of CA/Siskiyou	Siskiyou
522	Partnership HealthPlan of CA/Trinity	Trinity
523	Partnership HealthPlan of CA/Del Norte	Del Norte

## Appendix C. Data Sources and Data-Related Definitions

**Managed Care Accountability Set (MCAS)** is a set of performance measures that DHCS selects for annual reporting by Medi-Cal managed care health plans (MCPs). MCAS is based on nationally standardized performance measures such as the Centers for Medicare and Medicaid Services (CMS) Child and Adult Core Set of health care quality measures.

**California Department of Public Health (CDPH) California Immunization Registry (CAIR2)** is a secure, confidential, statewide computerized immunization information system for California residents. The registry is accessed online to help providers and other authorized users track patient immunization (shot) records, reduce missed opportunities, and help fully immunize Californians of all ages. Providers in most of California use the CAIR2 system. Providers in counties in the greater San Joaquin Valley area use a regional immunization data exchange (CAIR San Joaquin RIDE)). The CDPH [California Immunization Registry \(CAIR\) by Software Application](#) map shows which system is used by which county. The CAIR2 registry is also a COVID vaccination data repository and is used by DHCS to calculate COVID-19 vaccination rates.

**San Diego Regional Immunization Registry (SDIR)** is a web-based tool for immunization records that is maintained by the San Diego County Health and Human Services Agency. SDIR immunization records contribute towards the CAIR2 registry.

[CAIR San Joaquin – Regional Immunization Data Exchange \(RIDE\)](#) is an immunization registry for San Joaquin Region counties including Alpine, Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne.

**Medical Service Study Areas (MSSA)** are sub-city and sub-county geographical units used to determine population density. MSSAs describe the number of people per square mile within one or more census tracts.