Medi-Cal COVID-19 Vaccine Incentive Program Evaluation Report August 29, 2021 – March 6, 2022

February 2024

DHCS
CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES

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BACKGROUND

In the California fiscal year 2021-22 enacted budget, the Department of Health Care Services (DHCS) received legislative authority to spend up to $350 million in total funds to incentivize COVID-19 vaccination efforts in the Medi-Cal managed care delivery system for the service periods of September 1, 2021 through February 28, 2022. DHCS designed the program as a managed care plan incentive payment program, and it was submitted to Centers for Medicare and Medicaid Services (CMS) for review and approval in accordance with 42 Code of Federal Regulations (CFR) sections 438.6(b)(2) and 433.15(b)(7). Medi-Cal Managed Care Plans (MCPs) were eligible to earn incentive payments for activities that were designed to improve vaccination rates among their enrolled members.

MCP participation in the incentive program was voluntary but strongly encouraged, and all twenty-five (25) plans decided to participate. Participating plans were required to submit a Vaccination Response Plan at the beginning of the program indicating activities they planned to conduct and a Vaccination Response Plan Summary at the end of the program that detailed activities conducted during the program. The incentive program covered all MCP members eligible for vaccination at the time who were not fully vaccinated against COVID-19. DHCS additionally identified specific sub-populations of focus served by MCPs who faced barriers in the initial phases of vaccine distribution and/or had low uptake, including members who:

- were homebound and unable to travel to vaccination sites;
- were 50-64 years of age with one or more chronic diseases;
- self-identified as persons of color; and/or
- were youth 12-25 years of age.

The incentive program was designed to encourage MCPs to achieve specified outcome measures (see APL 21-010 and Attachment A). Up to $200 million was available for MCPs to earn for achievement of these outcome measures, with an additional $50 million earnable for the process measure of developing and submitting an initial Vaccine Response Plan to improve COVID-19 vaccine access and develop infrastructure to support this work in the long term. An additional $100 million was available for MCPs to utilize for direct non-monetary member incentives (not to exceed $50 per member, ages 5 years and over, regardless of number of doses and boosters). To encourage members to get vaccinated and meet the outcome measures of increased vaccination rates, MCPs could increase outreach efforts to underserved communities, build and monitor data

systems, and coordinate with regional health care delivery, public health, and community partners to ensure all members had equitable access to vaccines, regardless of demographic factors such disability, race, and/or ethnicity.

Weights and Targets Settings for Measures

Table 1 shows all ten program outcome measures and weights and target settings for each measure.

Table 1: Weights and Target Setting for COVID-19 Vaccine Incentive Program Measures

Measure	Weight	Target
1. Percent of homebound Medi-Cal members who received at least one dose of a COVID-19 vaccine	5%	Oct. 31, 2021 – 10% increase over MCP's baseline rate Jan. 2, 2022 – 20% increase over MCP's baseline rate Mar. 6, 2022 – 30% increase over MCP's baseline rate
2. Percent of Medi-Cal members ages 50-64 years of age with one or more chronic diseases [as defined by the federal Centers for Disease Control and Prevention* (CDC)] who received at least one dose of a COVID-19 vaccine	5%	
3. Percent of primary care providers in the MCP's network providing COVID-19 vaccine in their office	5%	
4. Percent of Medi-Cal members ages 12 years and older who received at least one dose of a COVID-19 vaccine	35%	To earn full payment, MCPs needed to close 33.3% of the gap between their baseline rate and the target rate (County Rate**) by Oct. 31, 2021; 66.6% of the gap by Jan. 2, 2022; and 100% by Mar. 6, 2022, or 2) achieve a rate of 85%; whichever was less.
5. Percent of Medi-Cal members ages 12-25 years who received at least one dose of a COVID-19 vaccine	10%	
6. Percent of Medi-Cal members ages 26-49 years who received at least one dose of a COVID-19 vaccine	5%	
7. Percent of Medi-Cal members ages 50-64 years who received at least one dose of a COVID-19 vaccine	5%	
8. Percent of Medi-Cal members ages 65+ years who received at least one dose of a COVID-19 vaccine	5%	

Measure	Weight	Target
9. Percent of Medi-Cal members ages 12 years and older from the race/ethnicity group with the lowest baseline vaccination rate who received at least one dose of a COVID-19 vaccine	15%	To earn full payment, MCPs needed to close 33.3% of the gap between their baseline rate and the target rate (the percent of the MCP's members 12 years of age and older who received at least one dose of COVID-19 vaccine on or before the measurement date) by Oct. 31, 2021; 66.6% by Jan. 2, 2022; and 100% by Mar. 6, 2022, or 2) achieve a rate of 85%; whichever was less.
10. Percent of Medi-Cal members ages 12 years and older from the race/ethnicity group with the second-lowest baseline vaccination rate who received at least one dose of a COVID-19 vaccine	15%	

* Definition here https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html ** For MCPs that serve one county, this was the county rate. For MCPs that serve more than one county, this was the weighted-average rate across all counties served.

Measures 4, 5, 9, and 10 were weighted the most, consistent with the above populations of focus who faced barriers in the initial phases of vaccine distribution and/or had low uptake. There was no partial payment for measures 1 through 3, but for 4 through 10, partial payment was available in proportion to the gap closure achieved between the baseline and target rate at each respective time point, if the MCP achieved a minimum gap closure of 5%, 10%, and 15% at each time point.

High Performance Pool (HPP)

Any vaccine outcome achievement funds not earned in accordance with the terms described in Table 1 were pooled and placed into a High Performance Pool (HPP), which could be earned by MCPs that met the achievement criteria set forth for the three HPP measures (see Attachment A). Two measures focused on two populations (5-11 years and 12 and older) receiving at least one dose of vaccine by March 6, 2022. The last measure was the percent of Medi-Cal members 12 years or older who are fully vaccinated and received a booster dose by March 6, 2022. MCPs that met the HPP achievement criteria earned a pro-rata share of the HPP funds, which was weighted based on the HPP measures achieved and each MCP's share of Medi-Cal membership relative to other MCPs meeting the achievement criteria. The total HPP payments to the MCP could not exceed 60% of the MCP's initial vaccine outcome achievement allocation.

EVALUATION PURPOSE

The purpose of this COVID-19 Vaccine Incentive Program evaluation is to summarize trends in vaccination rates and any improvements seen for the outcome measures utilized in the program, to analyze differences in vaccination rates between Medi-Cal and the surrounding counties for the same populations and see if these differences decreased by the end of the program, and to identify associations between quality improvement activities undertaken by MCPs and resulting vaccination performance.

EVALUATION DESIGN AND METHODS

In this report, DHCS compared baseline vaccination rates (August 2021) to follow-up rates (March 2022) to determine improvement for various populations and for various vaccine outcomes. This evaluation shows the amount paid out to MCPs in total and by measure and vaccination rates for each measure. Stratifications by MCP, age, and race/ethnicity were utilized to track overall performance, identify areas for focused improvement for each MCP population, and track and trend vaccination uptake in sub-populations to identify opportunities to address health equity. Additionally, this report shows what type of activities plans with the highest improvement conducted compared to plans with the lowest improvement, to help identify activities that may have led to improved vaccination rates and inform future improvement efforts. This report also examines the difference between vaccination rates among Medi-Cal members compared with vaccination rates in the county/counties in which the members live for the same populations and measures. This analysis allowed us to partially control for the fact that vaccine hesitancy varies geographically within California.

COVID-19 vaccination status was based on Medi-Cal members who received at least one dose of a COVID-19 vaccine, since data indicated that the vast majority of individuals who received a first vaccine dose completed the initial vaccination series. Vaccination status was determined by DHCS matching data from the California Department of Public Health's (CDPH) California Immunization Registry (CAIR2) vaccination registry to DHCS claims data. CDPH provided DHCS access to their Snowflake platform to download files weekly. CDPH files contained COVID-19 vaccine data (Moderna, Pfizer, and Johnson & Johnson vaccines) for patients reported by California providers into two immunization registries [CAIR2 (including San Diego Immunization Registry data) and CAIR San Joaquin (RIDE)]. DHCS ran a linkage program to identify Medi-Cal members who had been vaccinated and used LINKS to match the

CDPH-DHCS data. LINKS is a record linkage package developed at the University of Manitoba. Required data elements used in the record linkage process included: date of birth, name (first, middle, last), sex, zip code, county, city, and address. Vaccination status was reported for all members who were currently certified eligible for Medi-Cal, using all vaccination information from CDPH CAIR2, regardless of whether the person was certified eligible at the time of vaccination.

This report provides baseline and final vaccination rates for all measures, but focuses on evaluating improvement in the following populations of focus and areas:

- Percent of primary care providers in the MCP's network providing COVID-19 vaccine in their office (Measure 3)
- Percent of Medi-Cal members ages 12 years and older who received at least one dose of a COVID-19 vaccine (Measure 4)
- 12 to 25 age group - Percent of Medi-Cal members ages 12-25 years who received at least one dose of a COVID-19 vaccine (Measure 5)
- African American/Black population - Percent of Medi-Cal members ages 12 years and older from the race/ethnicity group with the lowest baseline vaccination rate who received at least one dose of a COVID-19 vaccine (Measure 9)
- American Indian/Alaska Native (AI/AN) populations - Percent of Medi-Cal members ages 12 years and older from the race/ethnicity group with the second-lowest baseline vaccination rate who received at least one dose of a COVID-19 vaccine (Measure 10)

Qualitative Analysis

To assess which types of activities might have contributed to MCP success in improving vaccination rates, all 25 Vaccination Response Plan Summaries (VRPS) were reviewed for both the top and bottom 5 plans ranked by improvement in the above measures. First, various inclusion and exclusion criteria for activities were applied for each population and measure. Next, content analysis was conducted on the VRPS to determine the presence of certain words, themes, or concepts within the qualitative data. This analysis was used to quantify and analyze the presence, meanings, and relationships of such certain words, themes, or concepts within the VRPS. The following paragraphs describe the inclusion and exclusion criteria used by measure.

In-Office Vaccinations by Providers (Measure 3): Plan activities that specifically stated providers were administering vaccines in their offices were included in the analysis. Registration in CalVax or something similar that indicated the provider administered vaccines were also included.

Overall Vaccinations (Measure 4): Activities that only involved vaccine education ("education alone") were characterized separately from vaccination activities, regardless of whether the latter also included an educational component (i.e., distributed materials to dispel vaccine misinformation and scheduled vaccine appointments). When reviewing vaccination activities, those that involved the following were included (even if there was no mention of appointments or vaccinations): vaccination events, vaccine clinics, direct member incentive program (or incentives), vaccine opportunities, incentivizing provider offices to improve vaccination rates, gift cards rewards, bringing vaccine to increase access, and pop-up clinics.

DHCS reviewed how many activities in the VRPS were focused on education only separately. Education only activities included those that involved combating misinformation, developing informational websites or provider toolkits, dispelling vaccine hesitancy, answering members' questions, and creating materials to distribute. Activities that were excluded involved providing education on how to access data, provider education, and vaccine awareness with no mention of education for members.

Populations of Interest (Measures 5, 9 and 10): Activities that specifically mentioned the three populations of interest, ages 12 to 25 years (Measure 5), African American/Black Medi-Cal members (Measure 9), and American Indian/Alaska Native Medi-Cal members (Measure 10) were included. For 12-to-25-year age group, activities that mentioned any part of the age range (12 to 25) or used the term children, teen, or youth were included in the content analysis. Other inclusion criteria included if the activity mentioned schools, school districts, community youth organizations, colleges, or universities. Activities that mentioned people of color but not specifically African Americans/Blacks or American Indians/Alaska Natives were not included.

RESULTS

All 25 Medi-Cal Managed Care plans submitted a Vaccination Response Plan (VRP; process measure) to DHCS and participated in this COVID-19 vaccine incentive program. These same plans submitted a Vaccine Response Plan Summary (VRPS) at the end of the

program which was used in the qualitative analysis. Plans could choose two out of measures 1 to 3 to report and were required to report vaccination rates for measures 4 to 10.

All participating plans reported vaccination rates for the following groups (Measures 4, 5, and 9): overall rates for those 12 and over, ages 12 to 25, and African American/Black Medi-Cal members. Almost all (23) plans reported vaccination rates for American Indian/Alaska Native (AI/AN) Medi-Cal members. For measure 3, only 8 plans reported the percent of primary care providers (PCPs) in the MCP's network providing COVID-19 vaccine in their office. AIDS Healthcare Foundation did not report on the AI/AN population because it was too small (denominator <30), and Kern Family Health Care's two populations with the lowest vaccination rates were African American and White Medi-Cal members.

Table 2 shows how much DHCS paid plans in total (64% of allotted funding) for direct member incentives, completing the vaccine response plans, the amount per measure, and the high performance pool (HPP) measures. Plans were paid 50.8 percent of the amount allotted for outcome measures 1 through 10. The remaining $98,338,699.41 was made available through the HPP and plans earned $35,884,072.97 (36.5 percent) of this amount.

Table 2: Funding Available and Paid for COVID-19 Vaccine Incentive Program

	Amount Available	Total Paid	Percent Paid
COVID-19 Incentive Program (Total)	$350 million	$224.49 million	64%
Direct member incentives	$100 million	$36.95 million	37%
VRPs	$50 million	$50 million	100%
Outcome measures	$200 million	$101,661,300.59	50.8%
Homebound Medi-Cal members	$8,480,876.64	$3,160,573.65	37.3%
Medi-Cal members ages 50-64 with one or more chronic disease	$8,486,377.96	$1,283,040.39	15.1%
PCPs providing vaccine in office	$3,032,745.46	$2,462,242.42	81.2%
Overall vaccination rate	$70 million	$30,352,080.09	43.4%

	Amount Available	Total Paid	Percent Paid
Vaccination ages 12 to 25	$20 million	$13,146,439.29	65.7%
Vaccination ages 26-49	$10 million	$3,765,233.95	37.7%
Vaccination ages 50-64	$10 million	$3,719,630.38	37.2%
Vaccination ages 65 and older	$10 million	$4,452,012.42	44.5%
Vaccination African Americans/Blacks	$30 million	$20,427,431.14	68.1%
Vaccination American Indians/Alaska Natives	$30 million	$18,892,616.86	63.0%
High Performance Pool (HPP)*	$98,338,699.41	$35,884,072.97	36.5%

*Remaining, unearned funds from the amount allotted for the outcome measures were made available through the HPP. These funds were earned based proportionally on the number of plans that qualified for the HPP, with a cap of 60% of their original allotment (see Attachment A for details). Ten health plans received HPP funds.

Table 3 shows vaccination rates at baseline (August 2021) and follow-up (March 2022) and the March 2022 target rate and gap between the actual and target March 2022 rates. The lowest vaccination rates at baseline and follow-up were for African American/Black (35.6 percent and 47.9 percent, respectively) and American Indian/Alaska Native (36.7 percent and 47.4 percent, respectively) Medi-Cal members. The highest vaccination rates at baseline were among Medi-Cal members 65 and older (69.0 percent), while at follow-up the group with the highest vaccination rate was among homebound Medi-Cal members (75.5 percent). The groups with the biggest difference between the March 2022 Medi-Cal rate and target rate were those ages 26 to 49 (32.6 percent) and those ages 12 and older (25.1 percent). The percent of primary care providers in the MCP's network providing COVID-19 vaccine in their office was the only measure that met or exceeded the target rate. The overall improvement in performance rates ranged from 5.6 percent (age 65+ years) to 17.5 percent (providers providing vaccines in their office) for the ten outcome measures.

Table 3: Change in Performance Rates for Vaccination Incentive Program Measures, Statewide

Vaccination Incentive Program Measure	Aug. 2021	Improvement	Mar. 2022	March Target	Gap*
1: Homebound Medi-Cal members, at least one dose	64.7%	10.8%	75.5%	84.1%	8.6%
2: Medi-Cal 50-64 years, one or more chronic diseases, at least one dose	65.3%	10.1%	75.4%	84.9%	9.4%
3: Network primary care providers (PCPs) providing COVID-19 vaccine in office	49.5%	17.5%	67.0%	64.3%	-2.7%
4: Medi-Cal 12+ years, at least one dose	51.1%	10.0%	61.1%	86.2%	25.1%
5: Medi-Cal 12-25 years, at least one dose	43.9%	13.2%	57.1%	75.0%	17.9%
6: Medi-Cal 26-49 years, at least one dose	46.9%	10.1%	57.0%	89.6%	32.6%
7: Medi-Cal 50-64 years, at least one dose	60.4%	7.2%	67.6%	90.7%	23.1%
8: Medi-Cal 65+ years, at least one dose	69.0%	5.6%	74.6%	88.2%	13.6%
9: Medi-Cal Black/African American, at least one dose	35.6%	12.3%	47.9%	61.1%	13.2%
10: Medi-Cal American Indian/Alaska Native, at least one dose	36.7%	10.7%	47.4%	61.1%	13.7%

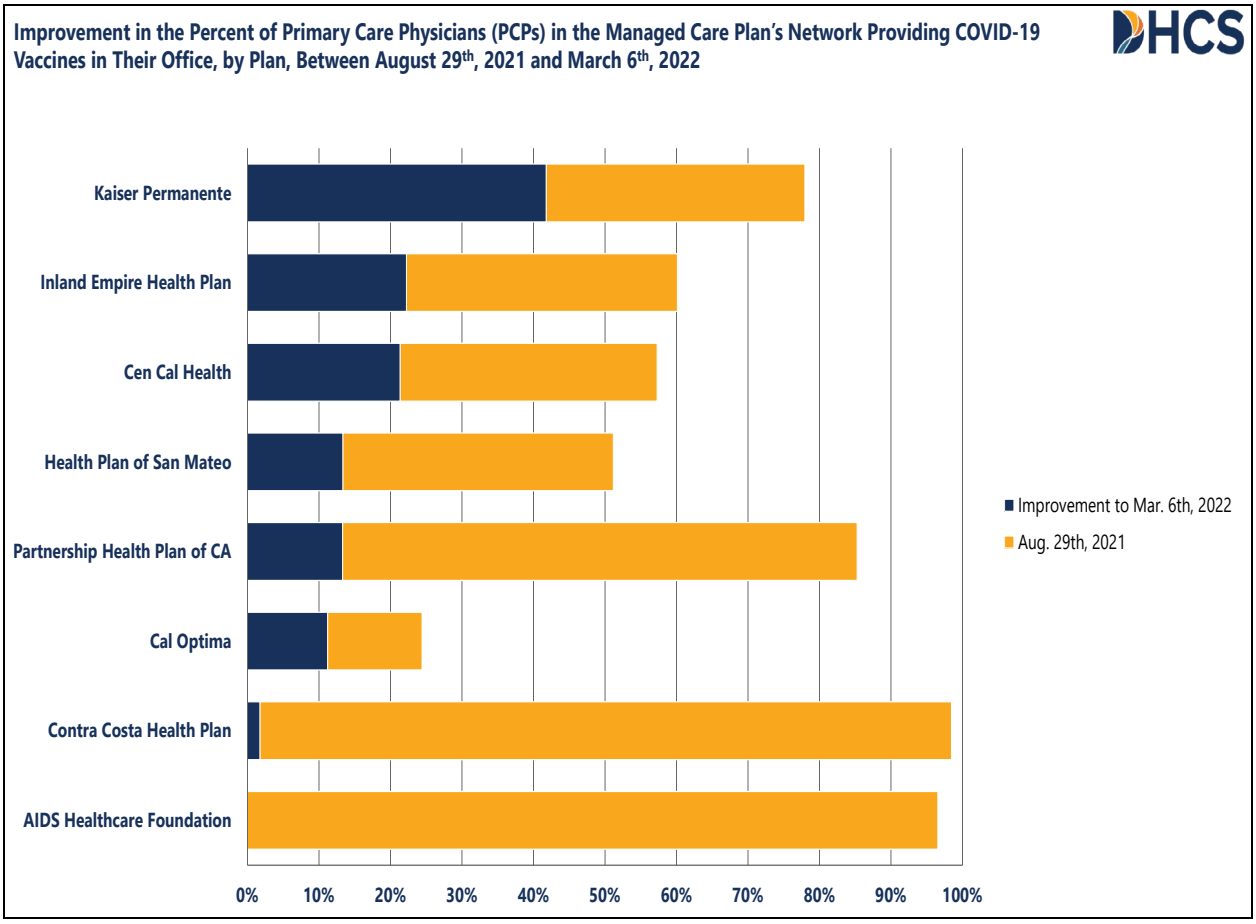
*Gap defined as difference between actual March 2022 rate and March 2022 target rate.

Percent of Primary Care Providers in the MCP's Network Providing COVID-19 Vaccinations In-Office (Measure 3)

Only eight out of 25 plans (32.0 percent) chose to report rates for PCPs providing vaccinations in their office (Measure 3). This measure had the highest improvement when subtracting the baseline rate from the follow-up rate (17.5 percent). The rate for

plans at baseline ranged from 13.2 percent for Cal Optima to 96.7 percent for Contra Costa Health Plan, and at the end of the program ranged from 24.4 percent for Cal Optima to 98.5 percent for Contra Costa Health Plan. The improvement varied by plan and ranged from 0.0 percent for AIDS Health Care Foundation (which had the second highest final rate at 96.6 percent) to 41.8 percent for Kaiser Permanente (see Figure 1).

Figure 1



The top three plans that reported the highest improvement for the measure were Kaiser Permanente (41.8 percent), Inland Empire Health Plan (22.2 percent), and Central California Health Plan (21.4 percent; see Figure 1). All three plans reported at least one activity related to this measure. These plans reported improvement that was double the improvement of the bottom three plans. Top health plans reported providing provider incentives to administer vaccines in-office, assisting with provider enrollment in myCAvax and registering as a CalVax provider, and making vaccines available in

Pediatrics and Obstetrics and Gynecology departments.

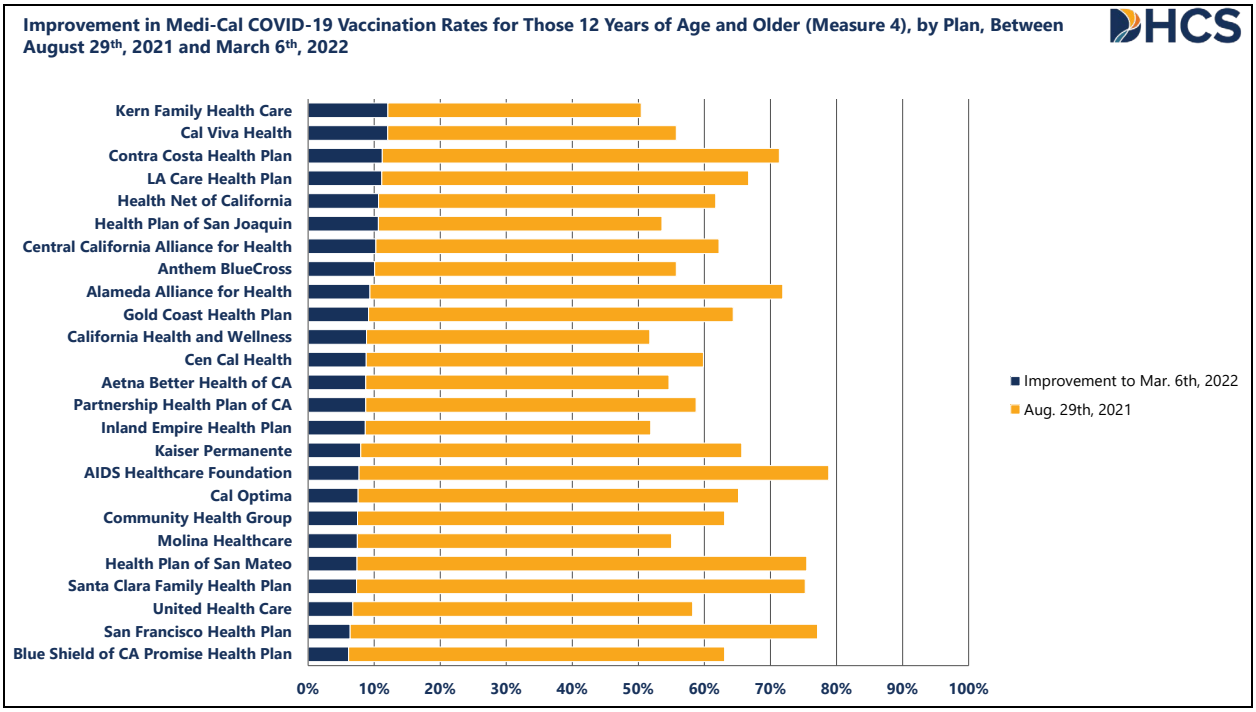
The three plans that reported the lowest improvement for this measure were AIDS Healthcare Foundation (0 percent), Contra Costa Health Plan (1.8 percent), and Cal Optima (11.2 percent). Two of these plans (AIDS Healthcare Foundation and Contra Costa Health Plan) had very high rates of providers providing vaccine in their office at baseline, already over the 85% payment threshold. Two plans reported one activity related to the measure, while one plan (Contra Costa Health Plan) did not report any related activities. The three lowest improving plans reported providing primary care sites with vaccine supplies and encouraging providers and provider groups to become CalVax providers; however, unlike top improving plans these plans did not provide provider incentives to administer vaccine in their offices.

Percent of Medi-Cal Members Ages 12 Years and Older Who Received at Least One Dose of a COVID-19 Vaccine (Measure 4)

All 25 plans reported the percentage of Medi-Cal members ages 12 and older who received a least one dose of vaccine (Measure 4). This population had an overall vaccination rate of 61.1 percent at the end of the incentive program and an improvement of 10.0 percent. The plan with the highest vaccination rate at baseline and at the end of the program was AIDS Health Care Foundation (71.1 percent and 78.8 percent, respectively) while Kern Family Health Care had the lowest at both time points (38.3 percent and 50.4 percent, respectively). Improvement varied by plan and ranged from 6.1 percent for Blue Shield of California Promise Health Plan to 12.1 percent for Kern Family Health Care (see Figure 2).

The top five plans that reported the highest improvement in overall vaccination rates were Kern Family Health Plan (12.1 percent) Cal Viva Health (12.1 percent), Contra Costa Health Plan (11.2 percent), LA Care Health Plan (11.1 percent), and Health Net of CA (10.7 percent) (see Figure 2). Two plans reported 14 vaccination activities (Kern Family Health Plan and LA Care Health Plan), one reported 10 (Health Net of CA), one reported 7 (Cal Viva), and one reported 6 (Contra Costa).

Figure 2



The top improving plans reported 46 vaccination activities in total and only six were focused specifically on scheduling appointments. These plans tended to report fewer education only activities, more vaccination activities and more actual vaccinations than plans in the bottom five (see Table 4). The top improving plans were also more likely to report vaccination activities that were not just focused on scheduling appointments, unlike the bottom five plans. Some of top five plans reported unique activities that reached many members. For example, LA Care Health Plan partnered with 10 pharmacies in under-vaccinated communities to conduct outreach, education, and set up vaccine appointments for 24,000 high-risk members. Examples of activities reported by a single plan included partnering with a ride sharing service to provide rides to vaccine appointments, offering extended clinic hours (evenings and weekends), conducting a culturally targeted outreach campaign for members (made 119,812 calls and sent 600,000 texts that resulted in 68,000 vaccinations), piloting a vaccine update machine learning model to target most likely to vaccinate members for specific outreach, and paying providers to improve member vaccination rates.

Table 4: List of Activities* Conducted by the Top Health Plans, Based on Improvement in Vaccination Rates, for Measure 4

Plans	Education only	Appointment & vaccine outreach	Community events	Other activities	Incentives
Measure 4 – Overall vaccination rate for those 12 and older					
Top 5 Improving Plans	• 4 plans reported that 40% or less of their activities involved education alone.	• 5 plans collaborated with various organizations to provide vaccine appointments and vaccines (some in low vaccination areas) • 4 plans scheduled appointments	• 3 plans conducted vaccine events/clinics onsite and in low vaccinated communities • 3 plans used data to target outreach and event locations and schedule appointments for unvaccinated	• 3 plans conducted outreach to homebound members • 2 plans made calls to members close to vaccine events	• 5 plans gave gift cards or incentives (at events)

*Only activities conducted by at least 2 plans were included in this table.

The bottom five plans in improvement in overall vaccination rates were Blue Shield of CA (6.1 percent), San Francisco Health Plan (6.4 percent), United Health Care (6.8 percent), Santa Clara Family Health Plan (7.3 percent), and Health Plan of San Mateo (7.4 percent). Three of the lowest improving plans were in the top five health plans in vaccination rates at follow-up (San Francisco Health Plan, Santa Clara Family Health Plan, and Health Plan of San Mateo), perhaps reflecting difficulty in further improvement at higher performance rates.

The lowest improving plans reported only 29 activities in total and 20 of the activities were focused only on education. As noted in Table 5, the five lowest improving plans focused on giving member incentives, scheduling appointments, and partnering with organizations to deliver vaccinations. These plans reported fewer activities (typically five

or less) than those in the top five. These plans reported more activities that were educational only—four plans reported that over 40 percent of their activities were educational only. One lower improving plan (San Francisco Health Plan) reported 13 activities and although only two (15 percent) were educational only, almost half (6) were focused on scheduling appointments. Activities that reported vaccinations tended to serve less than 100 members and were not specifically focused on the unvaccinated or low vaccination areas, although two did focus on the homeless.

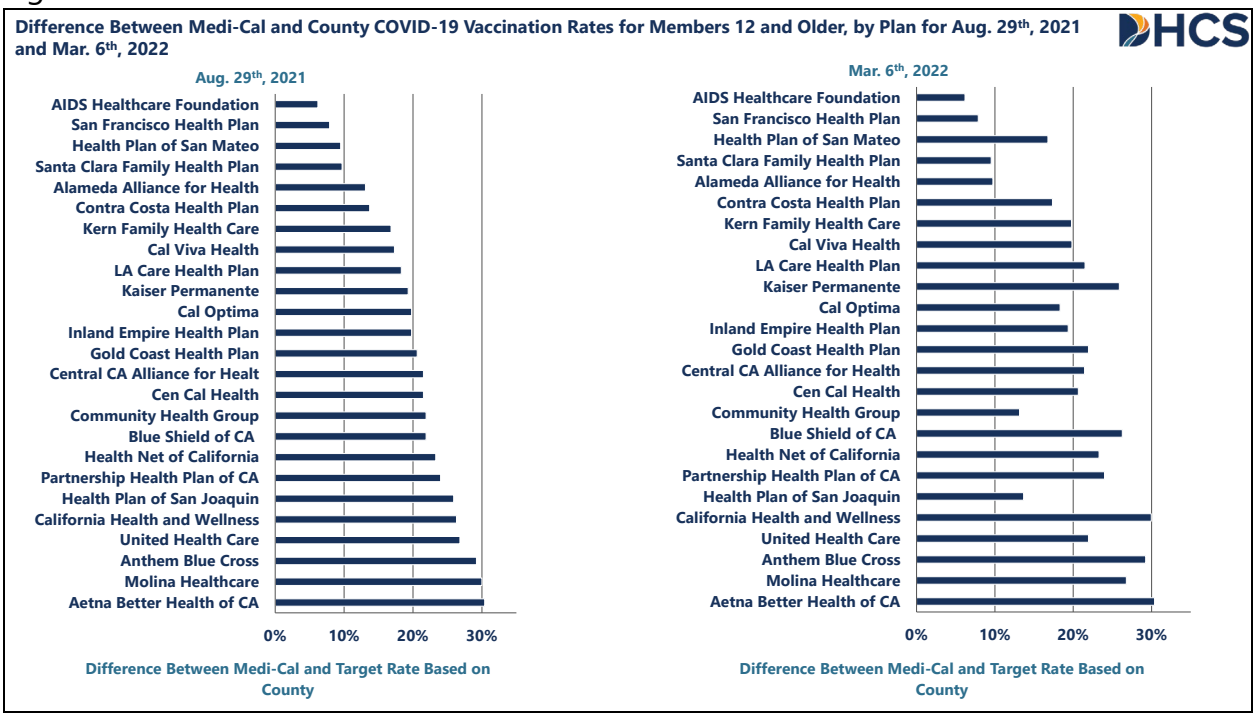
Table 5: List of Activities* Conducted by the Bottom Health Plans, Based on Improvement in Vaccination Rates, for Measure 4

Plans	Education only	Appointment & vaccine outreach	Community events	Other activities	Incentives
Measure 4 – Overall vaccination rate for those 12 and older					
Bottom 5 Improving Plans	4 plans reported that over 40% of their activities involved education alone	• 3 plans scheduled appointments • 3 plans partnered with organizations to host vaccination events or deliver vaccinations	None	• 3 plans provided or assisted with transportation to obtain vaccinations	• 4 plans gave gift cards • 2 plans partnered with Walgreens to give gift cards

*Only activities conducted by at least 2 plans were included in this table.

Figure 3 shows the difference between the Medi-Cal and county rates for overall vaccination rate by plan, on both Aug 29, 2021 and March 6, 2022. For the percent of Medi-Cal members' ages 12 years and older who received at least one dose of a COVID-19 vaccine, the baseline difference between Medi-Cal and county rates ranged from 4.1 percent for AIDS Health Care Foundation to 33.0 percent for Aetna Better Health Care. The difference between Medi-Cal and county rates at the end of the program ranged from 6.2 percent for AIDS Health Care Foundation to 30.4 percent for Aetna Better Health Care. Twelve (46.2 percent) plans showed a smaller difference between the Medi-Cal rate and the county rate at the end of the program than at the beginning.

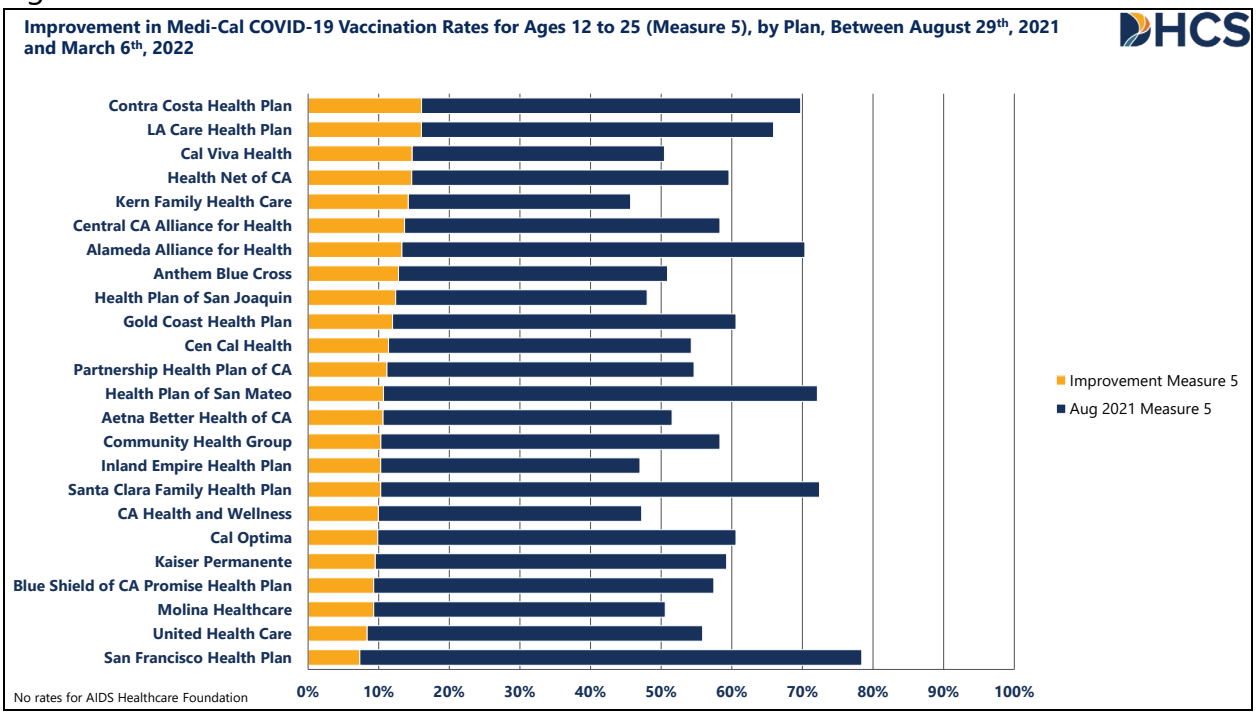
Figure 3



12 to 25 age group – Percent of Medi-Cal Members Ages 12-25 years Who Received at Least One Dose of a COVID-19 Vaccine (Measure 5).

Twenty-four (96.0 percent) plans reported the percentage of members ages 12 to 25 years who had a least one dose of vaccination (Measure 5; see Figure 4). This measure had an overall statewide Medi-Cal rate of 57.1 percent at the end of the incentive program and an overall improvement of 13.2 percent. The plan with the highest rate at baseline and at the end of the program was San Francisco Health Plan (71.1 percent and 78.4 percent, respectively) while Kern Family Health Care had the lowest at both time points (31.5 percent and 45.7 percent, respectively). Improvement varied by plan and ranged from 7.3 percent for San Francisco Health Plan to 16.1 percent for Contra Costa Health Plan (see Figure 4). AIDS Health Care Foundation had a numerator less than 11 for this measure; therefore, rates are not reported.

Figure 4



The top five improving plans were Contra Costa Health Plan (16.1 percent), LA Care Health Plan (16.1 percent), Cal Viva (14.7 percent), Health Net of California (14.7 percent), and Kern Family Health Plan (14.2 percent) (see Figure 4). These highest improving plans reported 37 youth-focused activities in total. Contra Costa Health Plan reported only one activity, while Kern Family Health Plan reported none. The other three top improving plans reported 6 to 15 activities.

Top plans conducted vaccine events in low-income areas that were planned using data, in which plans called members to attend or gave members incentives to attend (see Table 6). These plans collaborated with partners focused on this population and had many activities involving member incentives. One plan supported CBO partners to encourage participation at events by offering food, give aways and other incentives, and empowered partners to spread awareness at the local level by providing educational materials for offices and members. Another plan developed and piloted vaccine updated machine learning models to target most likely to vaccinate members for specific outreach. Top improving plans tended to report more activities, specifically those that focused either on communities or populations with low vaccination rates.

Table 6: List of Activities* Conducted by the Top Health Plans, Based on Improvement in Vaccination Rates, for Measure 5

Plans	Education only	Appointment & Vaccine outreach	Community events	Other activities	Incentives
Measure 5: Ages 12 to 25					
Top 5 Plans	None mentioned	• 3 plans conducted vaccine events or clinics (either called people to participate or gave incentives – including non-monetary) in low vaccination areas • 3 plans used data to plan vaccine events (2 mentioned done in low vaccination areas) • 2 plans conducted outbound calls to give information or schedule appointments	• 4 plans partnered with organizations (3 with school-based health centers, or school districts, or community youth partners) to provide vaccinations (2 in low vaccination populations)	• 2 plans integrated vaccine data into Care Gap reports • 2 plans conducted weekly meetings with community-based organization partners receiving $15,000 or more in grants • 2 plans worked with local health jurisdictions to identify zip codes of interest to amplify efforts	• 3 plans gave direct member incentives or gift cards (1 plan even leveraged healthy rewards program to include direct member incentives)

Plans	Education only	Appointment & Vaccine outreach	Community events	Other activities	Incentives
				• 2 plans empowered partners to spread awareness at local level • 2 plans conducted weekly internal meetings • 2 plans presented data to DHCS child and adolescent health collaborative	• 2 plans sent direct mailers to members about availability of Walmart gift cards; vaccinated members then accessed a website to report vaccination and claim gift cards.

*Only activities conducted by at least 2 plans were included in this table.

The bottom five improving plans were San Francisco Health Plan (7.3 percent), United Healthcare Plan (8.4 percent), Molina Healthcare (9.3 percent), Blue Shield of California (9.3 percent) and Kaiser Permanente (9.5 percent) (see Table 7). The lowest improving plans reported only 20 activities in total. The three plans with the least improvement, San Francisco Health Plan, United Healthcare Plan, and Molina Health Care, only reported one activity. Blue Shield of California reported eight activities; however, only four of those activities involved vaccinations or monetary incentives. Kaiser reported over 10 activities; one partnership led to three activities but because these activities were not unique, they were counted as one. Also, plans reported multiple activities that were similar, for instance Blue Shield of California reported two different texting campaigns. These plans reported more passive activities like media campaigns and collaborations to raise awareness and fewer activities involving administrating vaccines or giving member incentives to this population. One plan partnered with a CBO to disseminate fliers through schools and conducted a vaccination campaigned targeting

zip codes with low vaccination rates, while another plan reported developing a vaccine taskforce and partnered with various organizations (Walmart, partner groups and other MCPs) to host vaccination events in areas with low vaccination rates.

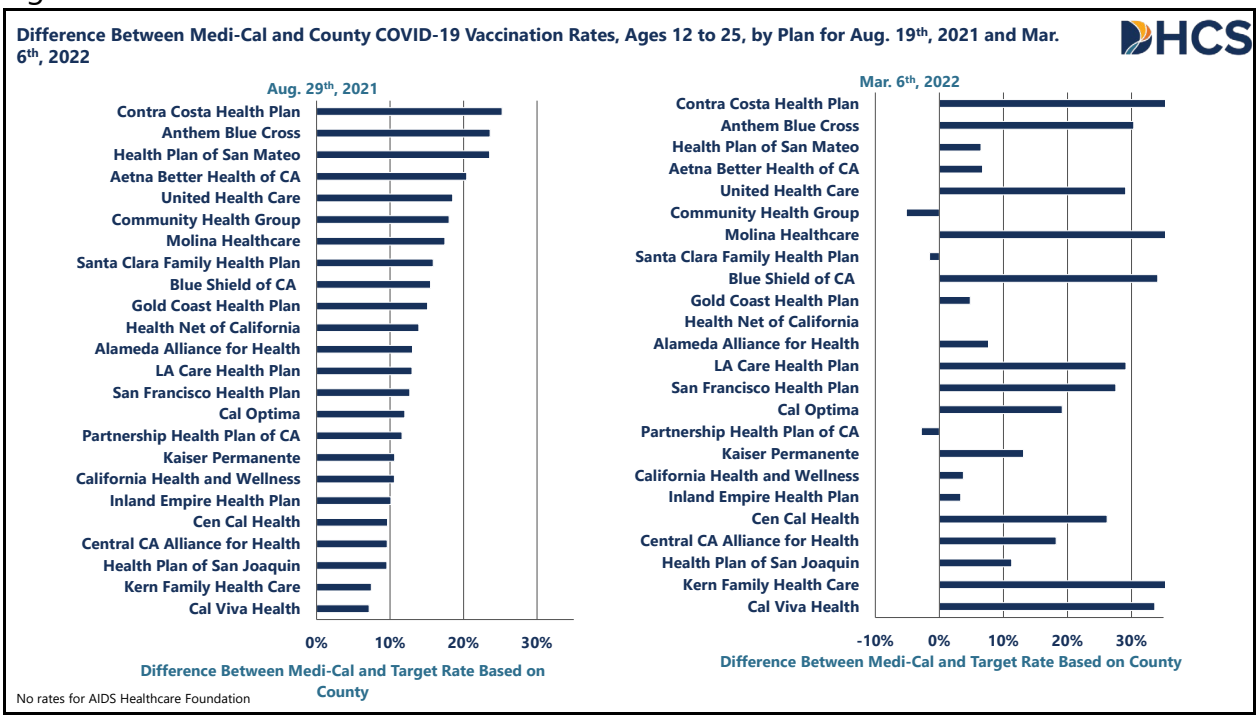
Table 7: List of Activities* Conducted by the Bottom Health Plans, Based on Improvement in Vaccination Rates, for Measure 5

Plans	Education only	Appointment & Vaccines outreach	Community events	Other activities	Incentives
Measure 5 – Ages 12 to 25					
Bottom 5 Plans	• 2 plans collaborated with organizations to educate and raise awareness	• 3 plans collaborated with organizations to administer vaccines at schools or use mobile clinics to reach youths (ages 12 to 17)	• 3 plans conducted media campaigns (text, social media, and promotoras)	• 2 plans conducted internal strategy meetings to touch base on vaccination rates and guide vaccine efforts	• 2 plans gave incentives/gift cards, including one who promoted cards through social media

*Only activities conducted by at least 2 plans were included in this table.

Figure 5 shows the difference between the Medi-Cal and county vaccination rates for 12- to 25-year-olds by plan, on both August 29, 2021 and March 6, 2022. For those ages 12 to 25 years, the difference at baseline ranged from 7.2 percent for Cal Viva Health to 25.3 percent for Contra Costa Health Plan and at follow-up ranged from -5.2 percent (meaning the Medi-Cal rate was better than the county rate) for Community Health Group to 37.9 percent for Molina Healthcare. Ten (41.7 percent) plans showed a smaller difference between the Medi-Cal rate and the county rate at the end of the program than the beginning.

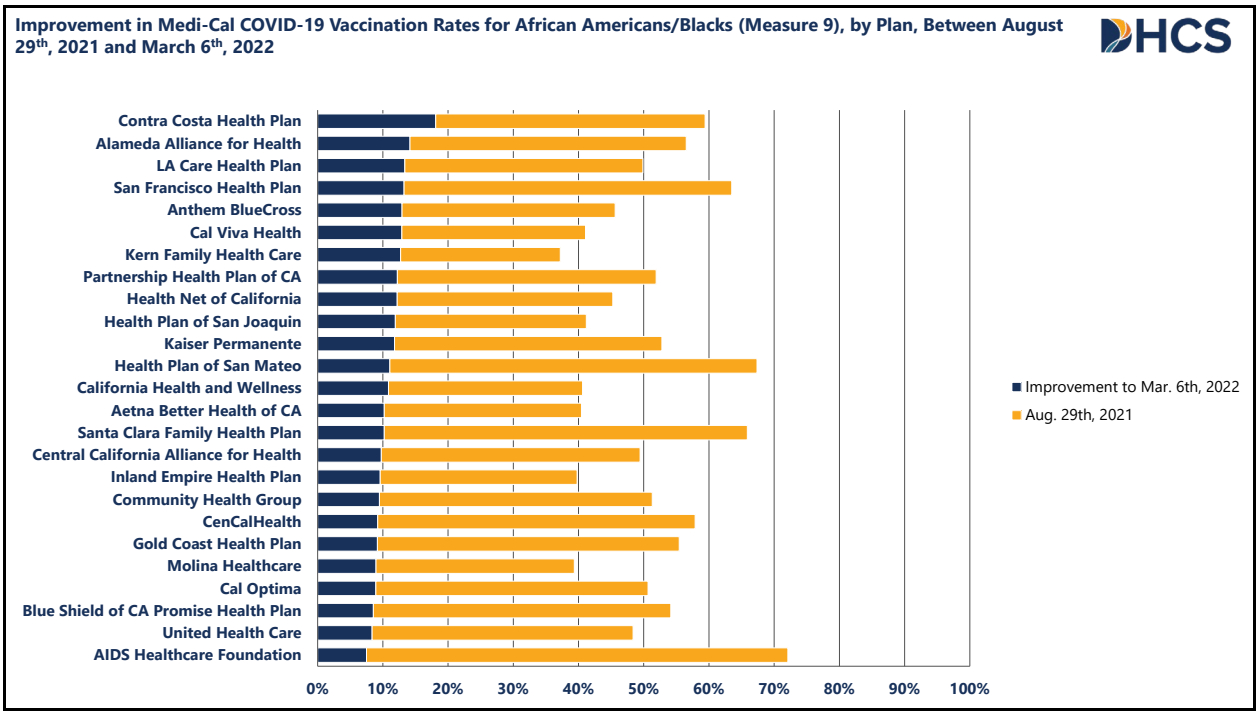
Figure 5



African American/Black Population (Measure 9)

All 25 plans reported the percentage of African American/Black members ages 12 and older who had a least one vaccine dose (Measure 9). This Medi-Cal population had a statewide vaccination rate of 47.9 percent at the end of the incentive program and overall improvement of 12.3 percent from baseline. The plan with the highest rate at baseline and at the end of the program was AIDS Health Care Foundation (64.6 percent and 72.1 percent, respectively) while Kern Family Health Care had the lowest at both time points (24.5 percent and 37.2 percent, respectively). The rate of improvement varied by plan and ranged from 7.5 percent for AIDS Health Care Foundation to 18.1 percent for Contra Costa Health Plan (see Figure 6).

Figure 6



The five plans that reported the highest improvement in vaccination rates for the African American/Black member population were Contra Costa Health Plan (18.1 percent), Alameda Alliance for Health (14.2 percent), LA Care Health Plan (13.4 percent), San Francisco Health Plan (13.3 percent), and Anthem Blue Cross (12.9 percent; see Figure 6). Most of these plans had improvement double that of the plans in the bottom five for this population (see Figure 6). The top five plans reported doing two to six activities that impacted various populations including the African American/Black population. Contra Costa Health Plan and Alameda Alliance Health Plan reported at least one activity that was focused specifically on this population. Contra Costa Health Plan created and shared a video made by one of their African American staff members discussing the tragic impact that COVID-19 had on her family including an unvaccinated family member. This video was emailed to all 2,783 adult unvaccinated African American/Black members, shared on social media, and posted on their website landing page. Alameda Alliance Health Plan worked with a local faith-based coalition of primarily African American/Black churches to develop materials to build vaccine confidence and combat misinformation. These materials were shared with pastors and faith leaders, individuals, and community organization representatives. The churches and community organizations further shared the information on their websites and social media pages. The top two improving plans had higher vaccination rates for African American/Black

Medi-Cal members even though they reported fewer activities impacting this population. LA Care Health Plan had the most activities that impacted various sub-populations.

Activities done by at least 60 percent of the top 5 plans involved creating educational videos and conducting outreach to communities with low vaccination rates, while at least 40 percent of these top 5 plans held pop-up clinics in low vaccination areas (see Table 8). In addition, one plan conducted a social media campaign to combat misinformation and another plan partnered with organizations (labs, universities, and clinics) to provide vaccines or appointments, address vaccine hesitancy, and assist members in finding vaccine locations.

Table 8: List of Activities* Conducted by the Top Health Plans, Based on Improvement in Vaccination Rates, for Measure 9

Plans	Education only	Appointment & Vaccines outreach	Community events	Other activities	Incentives
Measure 9: African Americans/Blacks					
Top 5 Plans	• 3 plans created educational COVID-19 videos	• 3 plans collaborated with organizations (CBOs, churches, government, and universities) to educate and provide vaccines in low vaccination neighborhoods or offer vaccines door to door • 3 plans used data to determine in which areas to conduct outreach	• 3 plans conducted outreach to communities with low vaccination rates or focused on specific populations		

Plans	Education only	Appointment & Vaccines outreach	Community events	Other activities	Incentives
		• 2 plans held pop-up clinics in low vaccination areas			

*Only activities conducted by at least 2 plans were included in this table.

The bottom five improving plans for this population were AIDS Healthcare Foundation (7.5 percent), United Health Care Plan (8.4 percent), Blue Shield of California (8.5 percent), Cal Optima (8.9 percent), and Molina Healthcare (9.0 percent). Four of the plans in the bottom five either had one or no activities impacting African Americans/Blacks. Plans with activities focused on collaborations to administer vaccines or combat misinformation (see Table 9). Blue Shield of California had six activities that focused on multiple populations related to collaborating with organizations to work with various populations; however, unlike the top five plans, most of the activities did not focus on the unvaccinated or those groups with low vaccination rates. One plan developed a website focused on vaccine hesitancy and conducted a social media campaign to deliver credible vaccine information. Another plan used data to identify high areas of deprivation and overlaid it with unvaccinated member data, and another plan created a video encouraging communities of color to get vaccinated. AIDS Healthcare Foundation reported the following in the impacted population column for all activities, "All members have disability due to the nature of an AIDS defining diagnosis," and was in the top five for vaccination rates at baseline. United Health Care's activities focused on the Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ), Hispanic, members of health equity areas, and multicultural populations. As a result, neither of these two plans' activities were considered ones that impacted this population.

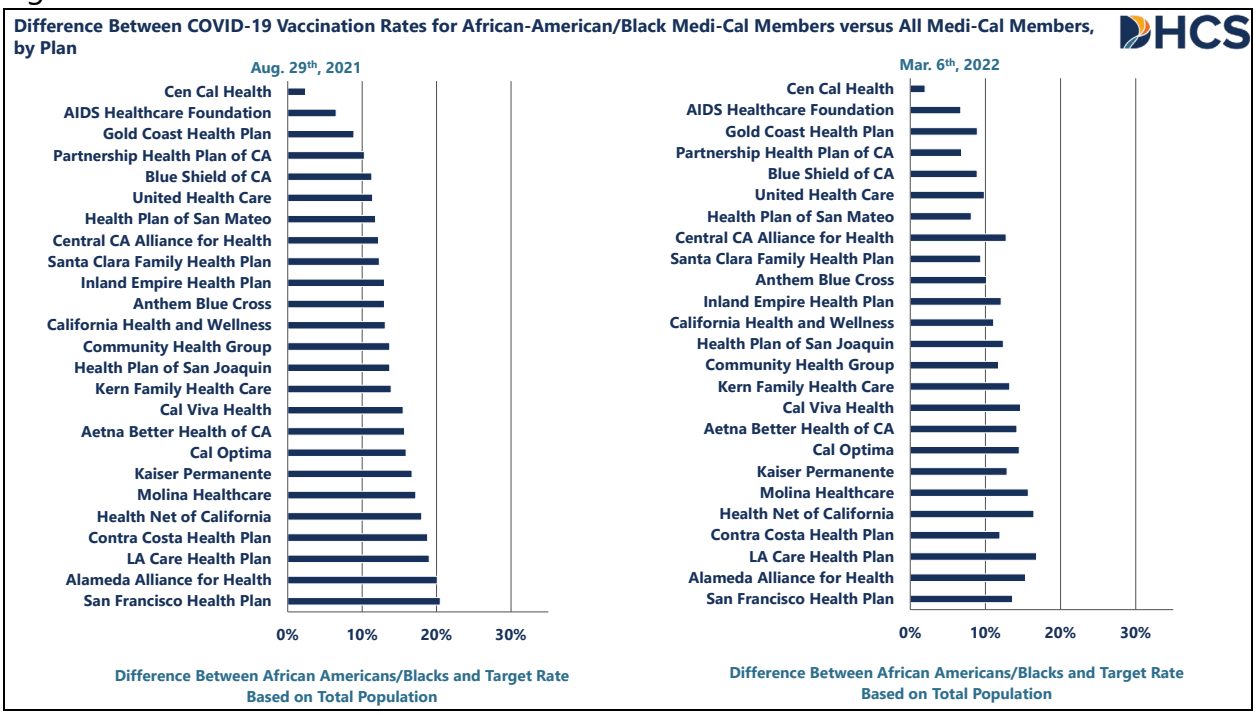
Table 9: List of Activities* Conducted by the Bottom Health Plans, Based on Improvement in Vaccination Rates, for Measure 9

Plans	Education only	Appointment & Vaccines outreach	Community events	Other activities	Incentives
Measure 9: African Americans/Blacks					
Bottom 5 Plans		• 2 plans collaborated w/organizations (CBOs, Champions for Health, churches) to either administer vaccines, reach those with low vaccination rates, or combat misinformation			

*Only activities conducted by at least 2 plans were included in this table.

Figure 7 shows the difference between the COVID-19 vaccination rates for African Americans/Black Medi-Cal members versus all Medi-Cal members by plan, on both August 29, 2021 and March 6, 2022. The baseline difference between African Americans/Blacks and all Medi-Cal members ranged from 2.4 percent for Central California Health to 20.5 percent for San Francisco Health Plan, and at the end of the program ranged from 2.0 percent for Central California Health to 16.8 percent for LA Care Health Plan. Twenty-two (88.0 percent) plans showed a smaller difference between the COVID-19 vaccination rates for African Americans/Blacks versus all Medi-Cal members at the end of the program compared with baseline.

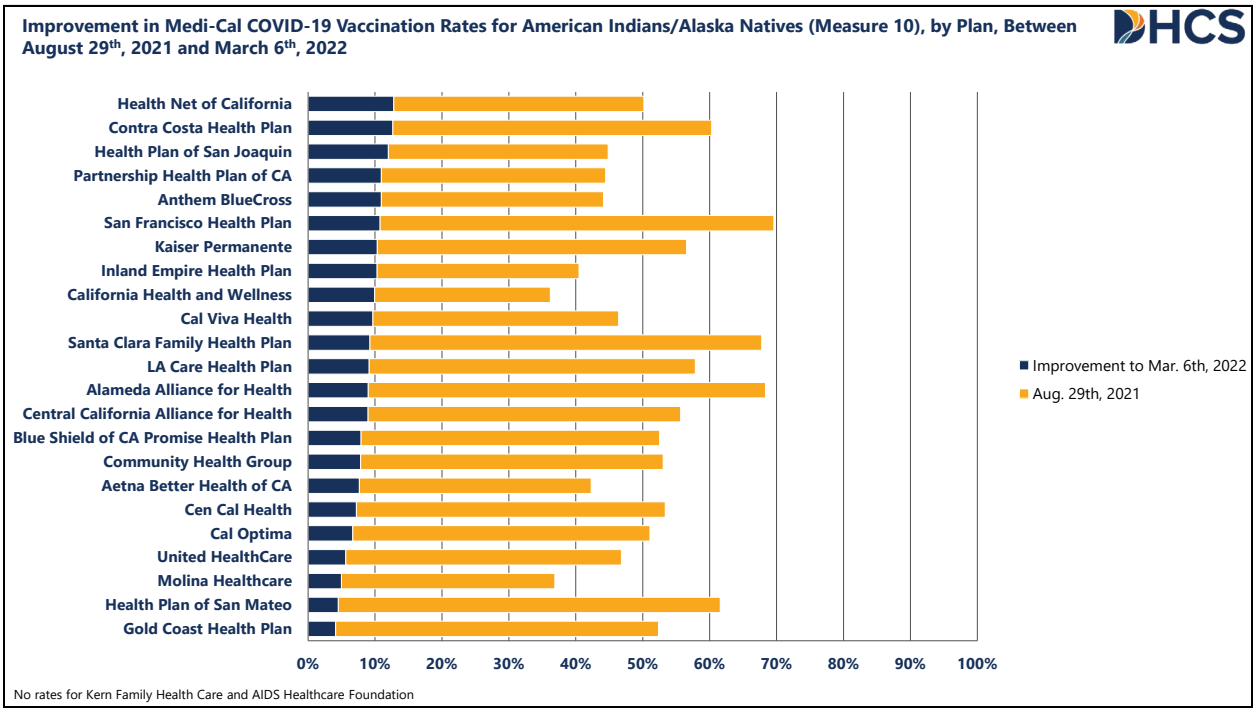
Figure 7



American Indian/Alaska Native Population (Measure 10)

This evaluation reports data from 23 plans for American Indian/Alaska Native (AI/AN) members ages 12 and older who had a least one vaccine dose (Measure 10). A rate for AIDS Health Care Foundation is not reported because the sample size was too small, and a rate for Kern Family Health Care is not reported because plans were required to focus improvement on the two racial/ethnic populations with the lowest initial vaccination rates, which in this plan were White and African American Medi-Cal members. Overall, American Indian/Alaska Native Medi-Cal members had a vaccination rate of 47.4 percent at the end of the incentive program and an improvement of 10.7 percent. The plan with the highest baseline vaccination rate was Alameda Alliance for Health (59.3 percent) and the highest final vaccination rate was San Francisco Health Plan (69.6 percent), while California Health and Wellness had the lowest vaccination rates for this population at both time points (26.2 percent and 36.2 percent, respectively). Improvement varied by plan and ranged from 4.1 percent for Gold Coast Health Plan to 12.8 percent for Health Net of California (see Figure 8).

Figure 8



The top five improving plans for the AI/AN population were Health Net of California (12.8 percent), Contra Costa Health Plan (12.7 percent), Health Plan of San Joaquin (12.0 percent), Partnership Health Plan of California (11.0 percent), and Anthem Blue Cross (10.9 percent; see Figure 8). These plans reported a total of ten activities that impacted various populations including this population (Health Net of California had 1, Contra Costa Health Plan had 2, Health Plan of San Joaquin had 4, Partnership Health Plan of California had 2, and Anthem Blue Cross had 1). Four of the top five plans reported at least two activities that impacted various populations including American Indians/Alaska Natives, while one plan only reported one activity. Top plans reported media campaigns and using data that focused on unvaccinated populations and collaborating with various organizations (see Table 10). One plan partnered with providers in areas with high numbers of unvaccinated AI/AN members and scheduled vaccine clinics and provided member incentives.

Table 10: List of Activities* Conducted by the Top Health Plans, Based on Improvement in Vaccination Rates, for Measure 10

Plans	Education Only	Appointment & Vaccines outreach	Community events	Other activities	Incentives
Measure 10: American Indians/Alaska Natives					
Top 5 Plans		• 3 plans conducted outreach campaigns (media and direct contact) for unvaccinated.		• 3 plans used data to target unvaccinated and then conducted targeted outreach • 3 plans collaborated with various organizations (Local Health Departments, Community Based Organizations, Federal Resource Centers, and CVS)	

*Only activities conducted by at least 2 plans were included in this table.

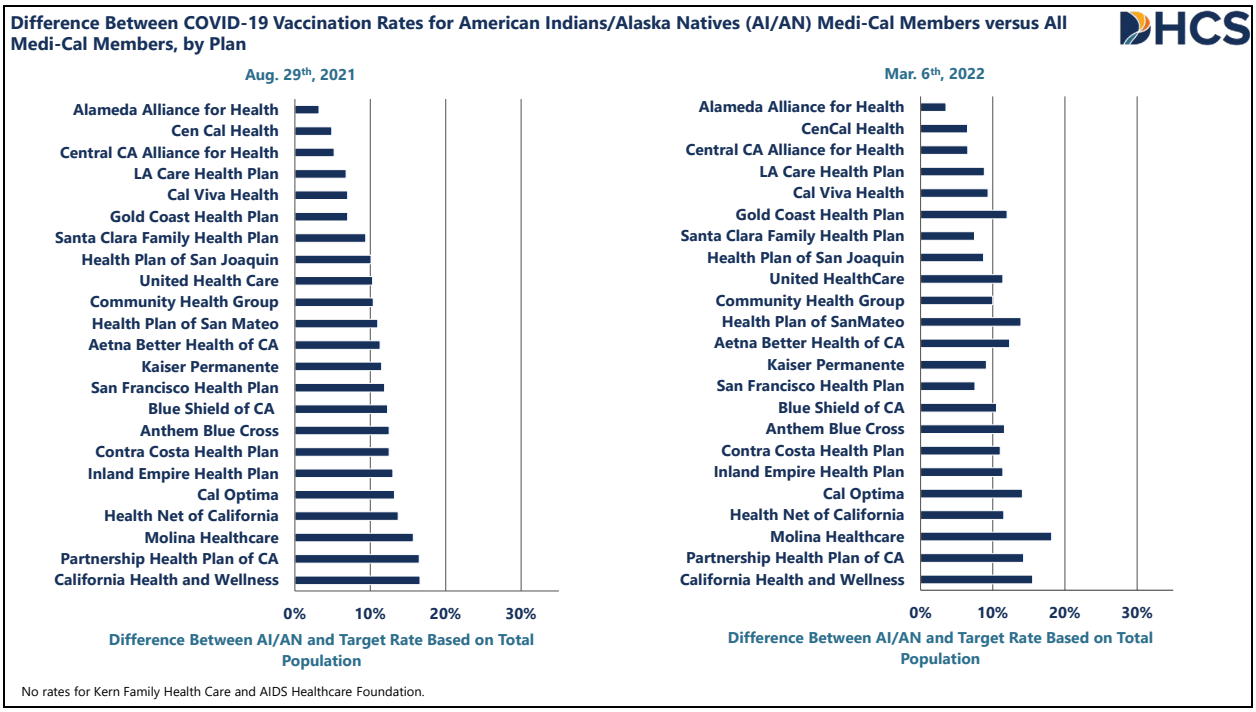
The bottom five improving plans for this population were Gold Coast (4.1 percent), Health Plan of San Mateo (4.5 percent), Molina Healthcare (5.0 percent), United Health Care (5.6 percent), and Cal Optima (6.7 percent; see Figure 8). The top plans had improvement that was typically twice that reported by the bottom plans, and none of the bottom five improving health plans reported any activities that mentioned American Indians/Alaska Natives.

While not in the top five improving plans, only Blue Shield Health Plan (7.9 percent) and San Francisco Health Plan (10.8 percent) reported conducting any activities that were solely focused on the AI/AN population. Blue Shield Health Plan worked with the San Diego American Indian Health Center and provided funding for events promoting information on COVID-19 vaccines via trusted messenger to answer questions in person. San Francisco Health Plan provided a grant to the Native American Health Center who provided vaccine information to the general community and their patients in webinars in English and Spanish. San Francisco Health Plan also conducted activities where they provided information regarding vaccines, mental health, masks, and testing for this population.

Figure 9 shows the difference between the COVID-19 vaccination rates for American Indian/Alaska Native members versus all Medi-Cal members by plan, on both August 29, 2021 and March 6, 2022. The baseline difference between American Indian/Alaska Native and all Medi-Cal members ranged from 3.2 percent for Alameda Alliance for Health to 16.6 percent for California Health and Wellness, and the follow-up difference ranged from 3.5 percent for Alameda Alliance for Health to 18.2 percent for Molina Healthcare. Twelve plans (52.2 percent of those that reported on this population) showed a smaller difference between American Indian/Alaska Native versus all Medi-Cal members at the end of the program than at baseline.

Two plans (Community Health Group and Santa Clara Family Health Plan) had smaller differences (successful gap closure) between Medi-Cal vaccination rates and target rates at follow up compared with baseline for all four measures (4, 5, 9, and 10) and six plans (California Health and Wellness, Health Net of California, Community Health Group, Inland Empire Health Plan, Partnership Health Plan of California, and Santa Clara Family Health Plan) had smaller differences at follow-up compared with baseline for the three populations (ages 12 to 25, AI/AN, and African American/Black). Only two plans (AIDS Healthcare Foundation and Central California Health) did not report smaller differences at follow-up compared with baseline for any of the four measures.

Figure 9



CONCLUSIONS

The COVID-19 Vaccine Incentive Program was implemented against a backdrop of extensive public health efforts to encourage COVID-19 vaccination for all Californians, regardless of payer source. As such, statewide and county-wide vaccination rates increased throughout the duration of the program along with vaccination rates among Medi-Cal members. Given the lower rates of COVID-19 vaccination among Medi-Cal members compared with Californians as a whole at the beginning of the program, and the disparities in COVID-19 vaccination rates across racial/ethnic groups in California, the program was intentionally designed to be ambitious in scope with the goal of only paying out all available funding to plans if they eliminated vaccination rate disparities between Medi-Cal members compared with community members, and between Medi-Cal members from the two racial/ethnic groups with the lowest vaccination rates and all plan members. Because of this ambitious scope, not all targets were reached and only 64% of available funds were paid out. Anecdotally, managed care plan leaders shared that the structure of the incentive program, having partial credit with thresholds followed by progressive amounts of award, was effective in motivating engaged plans to work on most of the measures, since the targets were ambitious, but the baseline threshold was achievable. This gave plan leaders the confidence to put up front investment into interventions.

Almost half (46.2 percent) of plans showed a smaller difference between the 12+ year old Medi-Cal vaccination rate and the county rate at the end of the program than at the beginning, showing some success in decreasing vaccine disparities among Medi-Cal members. However, the other half of plans did not decrease this disparity in vaccination rates. We looked carefully at the activities conducted by top improving plans compared with plans with much less improvement to attempt to identify successful strategies for further dissemination. The top improving plans showed improvement that was in most cases almost double the improvement in the bottom improving plans, and the difference between the top improving plan compared to the bottom improving plan was at least double and for some populations triple. When looking at providers providing vaccines in their offices (Measure 3), unlike top improving plans, bottom improving plans did not provide provider incentives to administer the vaccine in their offices. For improvements in vaccination rates, top plans generally reported more activities related to the populations and areas of focus for the vaccine incentive program than the bottom plans. The top plans were also more likely to report more data driven activities focused on removing barriers to vaccination (such as providing rides to vaccination appointments, extending clinic hours, scheduling pop-up vaccine clinics in areas with low vaccination rates or serving populations of focus) and fewer education-only activities than the bottom plans. Some top improving plans also reported using provider incentives to improve vaccination rates. The bottom improving plans were more like to report fewer vaccination activities and target all members or larger sub-populations. Some of the lowest improving plans had some of the highest vaccination rates at follow-up, perhaps reflecting difficulty in further improvement at higher performance rates.

When looking at ages 12 to 25 years (Measure 5), the top plans reported more direct vaccine events, while the bottom improving plans were more likely to report partnering or giving grants to others to host vaccine events. Interestingly, a few plans were so successful at raising the vaccination rate among their 12- to 25-year-old members that vaccination rates in this population of Medi-Cal members exceeded vaccination rates among similar-aged community members.

African American/Black and American Indian/Alaska Native (Measures 9 and 10) Medi-Cal members were least likely to get vaccinated; however, the rates for these populations did improve in plans that focused on these groups in activities involving multiple populations. Almost all (88.0 percent) plans showed a smaller difference between the COVID-19 vaccination rates for African American/Black Medi-Cal members

versus all Medi-Cal members at the end of the program compared with baseline, indicating program success in partially reducing racial disparities in vaccination rates among African American/Black members. Plans that conducted more activities focused on improving vaccination rates in these specific populations saw more improvement in vaccination rates, showing the success of community-specific investments in reducing racial/ethnic disparities.

The qualitative portion of this evaluation was limited to qualitative data contained in the Vaccine Response Plan Summaries submitted to DHCS from participating plans but suggests that plans who conducted data-driven activities designed to remove barriers to vaccination and focused on unvaccinated populations of interest were more successful at improving vaccination rates than plans who focused effort on vaccine education. Provider incentives also appear to have been associated with improved vaccination rates. Future efforts to improve COVID and other adult and adolescent vaccination rates in Medi-Cal should build upon these findings and focus resources on activities most likely to improve vaccination rate.