Health Plan Performance Improvement Project (PIP)

Health Plan: Louisiana Healthcare Connections

PIP Title: Ensuring access to the COVID-19 vaccine among Healthy Louisiana vaccine-eligible enrollees

PIP Implementation Period: April 2021 - ongoing

Project Phase: Final

Submission Dates:

	Baseline	Interim	Final
Version 1	5/7/2021	12/31/2021	12/31/2022
Version 2	6/23/2021		

MCO Contact Information

1. Principal MCO Contact Person

[PERSON RESPONSIBLE FOR COMPLETING THIS REPORT AND WHO CAN BE CONTACTED FOR QUESTIONS]

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2. Additional Contact(s)

[PERSON(S) RESPONSIBLE IN THE EVENT THAT THE PRINCIPAL CONTACT PERSON IS UNAVAILABLE]

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3. External Collaborators (if applicable): Louisiana Department of Health Vaccination Strike Teams; Vaccine Providers; Office of Public Health

Attestation

Plan Name: Louisiana Healthcare Connections
Title of Project: Ensuring access to the COVID-19 vaccine among Healthy Louisiana vaccine-eligible enrollees

The undersigned approve this PIP and assure involvement in the PIP throughout the course of the project.

Medical Director signature:
First and last name: Stewart Gordon, MD
Date: 12/9/2022
Chief Medical Officer

CEO signature:
First and last name: Jamie Schlottman
Date: 12/9/2022
Chief Executive Officer

Quality Director signature:
First and last name: Yolanda Wilson
Date: 12/9/2022
Sr. Vice President, Quality Improvement

IS Director signature:
First and last name: Michel Hanet
Date: 12/9/2022
Director, Reporting & Business Analytics

Updates to the PIP

For Interim and Final Reports Only: Report all changes in methodology and/or data collection from initial proposal submission in the table below.
[EXAMPLES INCLUDE: ADDED NEW INTERVENTIONS, ADDED A NEW SURVEY, CHANGE IN INDICATOR DEFINITION OR DATA COLLECTION, DEVIATED FROM HEDIS® SPECIFICATIONS, REDUCED SAMPLE SIZE(S)]

Table 1: Updates to PIP

Change	Date of change	Area of change	Brief Description of change: Indicate each new barrier analysis finding, MM/YY of modified intervention & summarize how interventions were modified to address newly identified barriers. Add rows as needed.
Change 1	06/07/21	☒ Project Topic ☐ Methodology ☒ Barrier Analysis and Interventions ☒ Other	Baseline measure rates adjusted to reflect LDH/ULM report data as of 4/1/2021; Target rates adjusted based on report proposal feedback; additional to 5B to monitor transportation utilization.
Change 2	07/02/21	☐ Project Topic ☒ Methodology ☒ Barrier Analysis and Interventions ☐ Other	Addition of ITM 1c to monitor pediatric population vaccination interventions; addition of ITM 6 to monitor collaborative provider partnership vaccine outcomes
Change 3	10/01/21	☐ Project Topic ☒ Methodology ☒ Barrier Analysis and Intervention ☒ Other	ITM 1a/1b/1c updated to reflect new appointment scheduling data guidance from LDH in comparison to eligible enrollees in each subgroup; calculated retro-actively and updated from July forward
Change 4	05/01/22	☐ Project Topic ☐ Methodology ☐ Barrier Analysis and Intervention ☒ Other	Incorporated LDH Shot per 100,000 program into member and provider facing initiatives

Abstract

For Final Report submission only. Do not exceed 1 page.

Provide a high-level summary of the PIP, including the project topic and rationale (include baseline and benchmark data), objectives, description of the methodology and interventions, results and major conclusions of the project, and next steps.

Topic: Ensuring access to the COVID-19 vaccine among Healthy Louisiana vaccine-eligible enrollees
Rationale: As COVID-19 continued to spread and new variants emerged, the focus on immunizing all vaccine-eligible LHCC enrollees persisted through 2022. Increasing access to and delivery of COVID-19 vaccines is critical in our efforts to reduce and eliminate the presence of the Coronavirus disease in our communities. At the onset of the pandemic, recommendations from leading healthcare advisory groups highlighted the importance of COVID-19 vaccinations to safely establish herd immunity to protect the population at large from the virus. This is especially important for vulnerable, high-risk groups, like the elderly and immunocompromised, with many of these groups being highly representative of the LHCC population. It is estimated that roughly 70 percent of people in the U.S. need to be fully vaccinated to reach this level of protection for COVID-19. Louisiana's COVID vaccination strategy relies on making the vaccine accessible across the state. Equitable access to the vaccine ensures that all residents of Louisiana have the opportunity to protect themselves, their families, and their community.
Objectives: The key objective of this PIP is to facilitate COVID-19 vaccination of all eligible enrollees.

Methodology

Eligible population: Louisiana residents who are enrolled in the Louisiana Medicaid program and eligible for COVID vaccination based on the FDA authorization.

Description of Annual Performance Indicators: Annual Performance Indicators collected through State immunization registry (LINKS) data measured the percentage of members receiving COVID vaccination, first dose and second dose, when indicated, in adult and pediatric members. Additionally, disparity in vaccination rates between subgroups (Black, Hispanic/Latino, and Other/Unknown/Missing) was compared versus the White subgroup to identify health inequities.

Sampling Method: No sampling used; PIP interventions target the entire eligible population.

Baseline and Re-measurement Periods: Baseline period: As of 4/1/2021; Interim measurement period: 4/9/2021 to 12/31/2021; Final measurement period: 1/1/2022 to 12/31/2022.

Data Collection Procedures:
Data was collected through State immunization registry (LINKS) data, administrative claims data utilized from Centene's Enterprise Data Warehouse, and additional programs such as Microstrategy, TruCare, Power BI, and SharePoint. Additional data for ITMs was collected and tracked through our internal data analytics, care management, quality, operations, marketing, provider network, and pharmacy teams. Data elements were collected monthly, aggregated, analyzed, and reported on a monthly basis.

Interventions

Member interventions:

- Refer and facilitate appointment scheduling for eligible enrollees engaged in case management to COVID-19 vaccination sites.
- Refer and facilitate appointment scheduling for eligible enrollees NOT engaged in case management to COVID-19 vaccination sites.
- Educate and inform enrollees on vaccine merits, safety and accessibility with comprehensive and clear communication in accordance with the State of Louisiana communication plan for the COVID-19

vaccine [e.g., LDH COVID-19 website: Louisiana Coronavirus COVID-19 | Department of Health | State of Louisiana (la.gov)].

- Provide enrollees with second dose reminders for those overdue.

Provider Interventions

- Distribute resources to PCP's including listings of COVID-19 vaccine-eligible enrollees, local vaccination sites and events, and other LINK-enrolled providers.
- Conduct training and education for providers using LINKS training videos and CDC/ACIP evidence-based guidance in collaboration with the Tri-Regional LINKS Outreach Coordinators.
- Conduct training and education for providers via our electronic provider education platform regarding COVID related topics
- Collaboration with providers to decrease member vaccine hesitancy and increase vaccine administration

Collaboration with state and local partners

- Outreach to racial/ethnic minority enrollees: Utilize COVID-19 vaccination coverage reports generated in LINKS to track and monitor COVID-19 vaccination rates and to determine pockets of need (e.g., zip code and region level). Collaborate and coordinate with the Louisiana Department of Health Vaccination Strike Teams to vaccinate hard-to-reach target populations in Louisiana.
- Collaborate with the Office of Public Health on vaccine education materials.

Results

Although annual rates are pending year-end aggregation and review; all available performance indicator data through 12/2/2022 may be found beginning on page 23. Adult members (16 years and older) receiving the first dose of any approved COVID vaccination YTD rate is 44.77 percent, a 33.60 percentage point increase from baseline, while adult members receiving a completed 2-dose vaccines series YTD rate is 38.52 percent, a 32.93 percentage point increase from baseline. Beginning in July 2021, the COVID-19 vaccine was approved for use in pediatric members (age 12 to 15 years). The rate of 12-15 year old members receiving the first dose of any approved COVID vaccination YTD rate is 29.83 percent, 24.21 percentage points higher than baseline and completed vaccine series YTD rate is 24.59 percent, a 21.06 percentage point increase from baseline. Pediatric members ages 5-11 years old were approved for vaccination in late October 2021, with reporting for this age group formalized in January 2022. The rate of members 5-11 years old receiving the first dose of any approved COVID vaccination YTD rate is 12.99 percent, 9.80 percentage points higher than baseline; and completed vaccine series YTD rate is 9.81 percent, an 8.93 percentage point increase from baseline. The youngest eligible population of pediatric members (ages 6 months to 4 years) were approved for vaccination in late June 2022. The rate of members 6 months to 4 years old receiving the first dose of any approved COVID vaccination YTD rate is 0.87 percent, 0.76 percentage points higher than baseline and completed vaccine series YTD rate is 0.66 percent, a 0.65 percentage point increase from baseline.

Conclusions and Next Steps

Ongoing analysis of COVID vaccine interventions and outcomes has provided valuable insight into member and provider centric challenges and opportunities for continued improvement. As vaccine-eligible populations were expanded to include members 6 months and older, additional barriers were identified. Reinforcing the importance for vaccination with remaining vaccine-eligible members has proven difficult as pandemic restrictions are lifted. Although LHCC's COVID-19 vaccination efforts continue and rates through December 2022 show steady improvement over baseline, more recent month-over-month trending indicates a decline in percentage growth. Continued efforts to provide vaccine outreach and education are needed to reach the targets set for this project. As COVID-19 infection rates and spikes have declined over the course of the pandemic and a return to pre-pandemic norms evolve, member feedback indicates enrollees are more comfortable remaining unvaccinated.

Provider education and member outreach initiatives will remain a continued focus as we move into 2023. Member outreach will focus on providing education about vaccine efficacy, dispelling vaccine myths, and providing linkage to vaccine administration and transportation when needed. LHCC's regional outreach focus on areas of the state with high rates of unvaccinated members will continue, overlapping with other HEDIS and PIP outreach to address member vaccination status while additional opportunities to expand this outreach are explored. Ongoing collaborations with community partners and trusted providers will continue in an effort to engage hesitant members, dispel vaccine myths, and address member perceptions surrounding the COVID-19 vaccine.

Project Topic

To be completed upon Proposal submission. Do not exceed 2 pages.

Describe Project Topic and Rationale for Topic Selection

- **Describe how PIP Topic addresses your enrollee needs and why it is important to your enrollees:**
  The COVID-19 pandemic has brought significant health and economic impacts to the state and nation. Increasing access to COVID-19 vaccines is critical in our efforts to reduce and eliminate the presence of the coronavirus in our community. With an enrollment of over 500,000 members, with many who may be impacted by COVID-19, Louisiana Healthcare Connections (LHCC) is pleased to partner with LDH in this performance improvement project to facilitate COVID-19 vaccinations throughout the state. The project supports LHCC's mission of improving the health of our community one member at a time.

  At the onset of the project in 2021, approximately 24 percent of Louisiana's population had been fully vaccinated. Recommendations from leading healthcare advisory groups highlight the importance of COVID-19 vaccinations to safely establish herd immunity to protect the population at large from the virus. This is especially important for vulnerable, high-risk groups, like the elderly and immunocompromised, with many of these groups being highly representative of the LHCC population. It is estimated that roughly 70 percent of people in the U.S. need to be fully vaccinated in order to reach this level of protection for COVID-19.

  Louisiana's COVID vaccination strategy relies on making the vaccine accessible across the state. Equitable access to the vaccine ensures that all residents of Louisiana have the opportunity to protect themselves, their families, and their community. However, without focused attention, many vulnerable populations who are disproportionately impacted due to health disparities are at risk of being left out of the vaccine rollout. These populations may be presented with general barriers such as transportation and/or technology challenges related to online vaccine registration. These realities support the need for a focused effort by LHCC to address these challenges and disparities to facilitate COVID-19 vaccinations in accordance with evidence-based recommendations for eligible enrollees. As the vaccines were rolled out and availability more widely available the education and importance of being vaccinated became the focus in later 2022.

  Immediate efforts towards initiating this PIP include data aggregation and analysis to determine the scope of LHCC's current membership who are eligible, but who have not received the vaccine or who are not fully vaccinated. A review of the current membership was conducted and preliminary analysis, along with data supplied by LDH, was initiated to determine current risk stratification volumes within the Plan membership. Preliminary review indicates significant opportunity is evident to increase vaccination rates among the eligible enrollees.

- **Describe vaccine eligibility:** The Louisiana Department of Health website (https://ldh.la.gov/covidvaccine) identifies vaccine eligibility.

  Initially, individuals 16 years of age and older could receive the COVID-19 vaccine. The CDC expanded this recommendation to include adolescents ages 12 to 15 in mid-2021. In late 2021, additional CDC recommendations included vaccine eligibility for children 5 to 11 years old early, and finally children 6 months to 4 years of age were added in July of 2022. Currently, all individuals ages 6 months or greater are eligible for COVID-19 vaccination based on CDC recommendations.

- **Describe current research support for topic (e.g., clinical guidelines/standards):** The Advisory Committee on Immunization Practices (ACIP) issued interim recommendations on the use of available COVID-19 vaccines to prevent COVID-19 (Oliver et al., 2020b). The State of Louisiana COVID-19 Vaccination Playbook's rationale for prioritizing persons with these conditions is to protect the most vulnerable, and cites the current CDC guidelines (CDC, 2020). Effective Tuesday, March 9, 2021, the

State of Louisiana expanded eligibility for COVID-19 vaccines to include people who have health conditions that may result in a higher risk of disease (https://ldh.la.gov/index.cfm/page/4137, 2021).

Aims, Objectives and Goals

Aim: Ensure access to COVID-19 vaccination for Healthy Louisiana enrollees.

Objective:

- **The key objective of this PIP is to facilitate COVID-19 vaccination of all eligible enrollees.**

Interventions:

A. Enrollee Interventions will be the focus of this PIP, as follows:

1. Refer and facilitate making appointments for eligible enrollees engaged in case management to COVID-19 vaccination sites.
2. Refer and facilitate making appointments for eligible enrollees NOT engaged in case management to COVID-19 vaccination sites.
3. Educate and inform enrollees on vaccine merits, safety and accessibility with comprehensive and clear communication in accordance with the State of Louisiana communication plan for the COVID-19 vaccine [e.g., LDH COVID-19 website: Louisiana Coronavirus COVID-19 | Department of Health | State of Louisiana (la.gov)].
4. Provide enrollees with second dose reminders for those overdue.

B. Provider Interventions

5. Distribute listings of COVID-19 vaccine-eligible enrollees, as well as listings of pharmacy vaccination sites and other LINK-enrolled providers, to PCPs.
6. Conduct training and education of providers, when necessary, using LINKS training videos and CDC/ACIP evidence-based guidance in collaboration with the Tri-Regional LINKS Outreach Coordinators.

C. Collaborate with state and local partners

7. Outreach to racial/ethnic minority enrollees. Utilize COVID-19 vaccination coverage reports generated in LINKS to track and monitor COVID-19 vaccination rates and to determine pockets of need (e.g., zip code and region level). Collaborate and coordinate with the Louisiana Department of Health Vaccination Strike Teams to vaccinate hard-to-reach target populations in Louisiana.
8. Collaborate with the Office of Public Health on vaccine education materials.

Table 2: Goals

Indicators	Baseline Rate[1] Measurement Period:	Target Rate[2]	Rationale for Target Rate[3]
Indicator 1: Receipt of COVID-19 vaccine			
Measure A: Receipt of at least one dose of COVID-19 vaccine	N: 32,955 D: 295,002 R: 11.17%	R: 70%	National Goal by 7/4/2021 (IPRO guidance 5/10/2021)
Measure B: Receipt of a complete vaccine series[4]	N: 16,497 D: 295,002 R: 5.59%	R: 50%	
Indicator 2: Racial/ethnic disparity in receipt of at least one dose of COVID-19 vaccine:			
Measure A: White enrollees receiving at least one dose	N: 5,656 D: 70,056 R: 8.07%		
Measure B: Black enrollees receiving at least one dose	N: 11,425 D: 100,780 R: 11.34%	R: 70%	National Goal by 7/4/2021 (IPRO guidance 5/10/2021)
Measure C: Hispanic/Latino enrollees receiving at least one dose	N: 1,401 D: 17,574 R: 7.97%		
Measure D: Enrollees of other, missing, or unknown race/ ethnicity receiving at least one dose	N: 14,473 D: 106,592 R: 13.58%		
Indicator 3: Racial/ethnic disparity in receipt of a complete COVID-19 vaccine course[4]:			
Measure A: White enrollees receiving a complete COVID-19 vaccine course	N: 2,800 D: 70,056 R: 4.00%		
Measure B: Black enrollees receiving a complete COVID-19 vaccine course	N: 5,700 D: 100,780 R: 5.66%	R: 50%	National Goal by 7/4/2021 (IPRO guidance 5/10/2021)
Measure C: Hispanic/Latino enrollees receiving a complete COVID-19 vaccine course	N: 600 D: 17,574 R: 3.41%		
Measure D: Enrollees of other, missing, or unknown race/ ethnicity receiving a complete COVID-19 vaccine course	N: 7,397 D: 106,592 R: 6.94%		

[1] LDH/ULM Report as of 4/1/21.
[2] Upon evaluation of progress, consideration should be given to improving the target rate, if it has been met or exceeded at that time.
[3] Indicate the rationale, e.g., percentage point improvement based upon the strength of interventions.
[4] This refers to completion of a 2-dose series for 2-dose vaccines (e.g., Pfizer and Moderna) or receipt of one dose for vaccines only requiring one dose (e.g., Johnson and Johnson) based on approved age recommendations.

Indicators	Baseline Rate[1] Measurement Period:	Target Rate[2]	Rationale for Target Rate[3]
Indicator 4: Receipt of COVID-19 vaccine by the pediatric population[5]			
Measure A: Receipt of at least one dose of COVID-19 vaccine: children ages 12-15 years	N: 3,282 D: 58,440 R: 5.62%	70%	
Measure B: Receipt of a complete vaccine series[4]: children ages 12-15 years	N: 2,061 D: 58,440 R: 3.53%	50%	
Measure C: Receipt of at least one dose of COVID-19 vaccine: children ages 5-11 years	N: 3,173 D: 99,490 R: 3.19%	70%	National Goal by 7/4/2021 (IPRO guidance 5/10/2021)
Measure D: Receipt of a complete vaccine series[4]: children ages 5-11 years	N: 877 D: 99,490 R: 0.88%	50%	
Measure E: Receipt of at least one dose of COVID-19 vaccine: children ages 6 month-4 years	N 65 D: 60,739 R: 0.11%	70%	
Measure F: Receipt of a complete vaccine series[4]: children ages 6 months-4 years	N: 7 D: 60,739 R: 0.01%	50%	

[5] For the pediatric population, the denominator equals the number of eligible members based on the FDA authorization. The denominator will change significantly as the age range of pediatric authorization changes. The baseline period for children ages 12-15 years will start with the 7/1/2021 COVID-19 Vaccine Summary Report. The baseline period for children ages 5-11 years will start with the 12/9/21 COVID-19 Vaccine Summary Report. The baseline period for children ages 6 months- 4 years will start with the 6/30/22 COVID-19 Vaccine Summary Report.

Methodology

To be completed upon Proposal submission.

Table 3: Performance Indicators

Indicator	Description	Data Source	Eligible Population	Exclusion Criteria	Numerator	Denominator
Indicator 1	Receipt of COVID-19 vaccine	**Numerator:** State immunization registry (LINKS) **Denominator:** Medicaid enrollment data	All Medicaid enrollees, age 16+	---	Measure A: Persons who received at least one vaccine dose Measure B: Persons who received a complete vaccine course[6]	All Medicaid enrollees, age 16+
Indicator 2	Indicator 2: Racial/ethnic disparity in receipt of at least one dose of COVID-19 vaccine: Measure A: White enrollees receiving at least one dose Measure B: Black enrollees receiving at least one dose Measure C: Hispanic/Latino enrollees receiving at least one dose Measure D: Enrollees of other, missing, or unknown race/ethnicity receiving at least one dose	**Numerator:** State immunization registry (LINKS) **Denominator:** Medicaid enrollment data	All Medicaid enrollees, stratified by race/ethnicity, age 16+	--	Persons who received at least one vaccine dose	Eligible individuals as listed in LDH Report
Indicator 3	Indicator 3: Racial/ethnic disparity in receipt of a complete COVID-19 vaccine course[6]: Measure A: White enrollees receiving	**Numerator:** State immunization registry (LINKS) **Denominator:** Medicaid enrollment data	All Medicaid enrollees, stratified by race/ethnicity, age 16+	--	Persons who received a complete COVID-19 vaccine course[6]	All Medicaid enrollees

[6] This refers to completion of a 2-dose series for 2-dose vaccines (e.g., Pfizer and Moderna) or receipt of one dose for vaccines only requiring one dose (e.g., Johnson and Johnson) based on approved age recommendations.

Indicator	Description	Data Source	Eligible Population	Exclusion Criteria	Numerator	Denominator
	a complete COVID-19 vaccine course Measure B: Black enrollees receiving of a complete COVID-19 vaccine course Measure C: Hispanic/Latino enrollees receiving a complete COVID-19 vaccine course Measure D: Enrollees of other, missing, or unknown race/ethnicity receiving a complete COVID-19 vaccine course					
Indicator 4	Receipt of COVID-19 vaccine by the pediatric population[7]	**Numerator:** State immunization registry (LINKS) **Denominator:** Eligible members based on the FDA authorization	All Medicaid pediatric population enrollees who are eligible based on the FDA authorization	---	Measure A: Persons who received at least one vaccine dose Measure B: Persons who received a complete vaccine series[6]	All Medicaid pediatric population enrollees

[7] For the pediatric population, the denominator equals the number of eligible members based on the FDA authorization. The denominator will change significantly as the age range of pediatric authorization changes. The baseline period for children ages 12-15 years will start with the 7/1/2021 COVID-19 Vaccine Summary Report. The baseline period for children ages 5-11 years will start with the 12/9/2021 COVID-19 Vaccine Summary Report. The baseline period for children age 6 months-4 years will start with the 6/30/2022.

Data Collection and Analysis Procedures

Is the entire eligible population being targeted by PIP interventions? If not, why?
The entire eligible population is targeted by PIP Interventions.

Sampling Procedures
If sampling was employed (for targeting interventions, medical record review, or survey distribution, for instance), the sampling methodology should consider the required sample size, specify the true (or estimated) frequency of the event, the confidence level to be used, and the margin of error that will be acceptable.

- **Describe sampling methodology:**
  No sampling used; PIP interventions target the entire eligible population.

Data Collection
Describe who will collect the performance indicator and intervention tracking measure data (using staff titles and qualifications), when they will perform collection, and data collection tools used (abstraction tools, software, surveys, etc.). If a survey is used, indicate survey method (phone, mail, face-to-face), the number of surveys distributed and completed, and the follow-up attempts to increase response rate.

- **Describe data collection:**
  Data will be collected through administrative claims data using Centene's Enterprise Data Warehouse and additional programs such as Microstrategy, TruCare, Power BI, and SharePoint. Additional data for ITMs will be collected through our internal Data Analytics team, Quality & Case Management, and Provider Network reporting. Supplemental data from COVID-19 vaccination coverage reports generated in LINKS, provided by LDH, will also be utilized for indicators as instructed. Data elements will be collected, aggregated, and reported monthly. Forms and data storage repositories may be developed to support outreach efforts and archive the data until its end of useful life defined by LDH contract and Centene system policies. Those who collect the data include Data Analysts, Quality Improvement team members, Case Management and/or Provider Network staff who track and trend their department's data.

Validity and Reliability
Describe efforts used to ensure performance indicator and intervention tracking measure data validity and reliability. For medical record abstraction, describe abstractor training, inter-rater reliability (IRR) testing, quality monitoring, and edits in the data entry tool. For surveys, indicate if the survey instrument has been validated. For administrative data, describe validation that has occurred, methods to address missing data and audits that have been conducted.

- **Describe validity and reliability:**
  For data reliability, the vaccination coverage rates (percentage of enrolled members per month who have received the COVID-19 vaccine) obtained from LDH will be compared to the number of claims and pharmacy data for the same time period, hence a correlation ratio is derived to check data consistency. Data is validated by the Data Analytics & Reporting team including data analysts and data scientists; department level data for ITM's may also be validated by the Quality team including, but not limited to, Quality leadership, QA Abstractors, and PI Specialists in Quality, Provider Network, and Population Health departments. Data validation processes also include having multiple analysts run the same data for a volume check and analyze further if there is a discrepancy.

Data Analysis
*Explain the data analysis procedures and, if statistical testing is conducted, specify the procedures used (note that hypothesis testing should only be used to test significant differences between **independent** samples; for instance, differences between health outcomes among sub-populations within the baseline period is appropriate).Describe the methods that will be used to analyze data, whether measurements will be compared to prior results or similar studies, and if results will be compared among regions, provider sites, or other subsets or benchmarks. Indicate when data analysis will be performed (monthly, quarterly, etc.). Describe how plan will interpret improvement relative to goal. Describe how the plan will monitor intervention tracking measures (ITMs) for ongoing quality improvement (e.g., stagnating or worsening quarterly ITM trends will trigger barrier/root cause analysis, with findings used to inform modifications to interventions).*

- **Describe data analysis procedures:**
  Data is compared to the data received from LDH; denominators and numerators are checked for inclusion of all eligible populations and any identified discrepancies are investigated. Data is compared to all sources available in an effort to produce the most valid data possible.

  LHCC has an analytics department within the Operations group that performs routine and ad hoc analysis of data. The team is skilled in data analysis, data collection and transformation, and statistical modeling.

- **Describe how plan will interpret improvement relative to goal:**
  Improvement will be monitored via internal benchmarking against established baseline thresholds where available. Preliminary analysis of internal claims activity, as well as state data provided, indicate comparable deficits in vaccine rates, providing a baseline upon which ongoing performance may be compared to benchmark progress towards improving vaccine coverage for COVID-19.

- **Describe how plan will monitor ITMs for ongoing QI:**
  ITMs will be monitored at minimum monthly to evaluate positive improvement, plateaus, or identify adverse trends for prompt investigation, analysis and/or action to modify interventions if indicated. Monitoring of enrollees who are eligible for the vaccine will be conducted using data tools for internal reporting and outreach processes supported by efforts to increase vaccine awareness, availability, and completion by the multidisciplinary project team including provider network, case management, quality improvement, and marketing/communications associates. Intervention tracking measure data, including member feedback collected through direct outreach and incoming calls, as well as member advisory committee meetings, will be collected and documented through programs such as Microstrategy, TruCare, Power BI, SharePoint, and others to be analyzed monthly in order to guide next steps. Similarly, provider feedback will be collected through direct outreach by provider consultant teams, provider advisory committee meetings, and internal medical director feedback for barrier analysis and informing our efforts moving forward. Relevant feedback and trends positively or negatively impacting these racial/ethnic subgroups, i.e., vaccine hesitancy or other concern specific to a disparity subgroup, will also be analyzed in order to reduce health disparities.

PIP Timeline

Start Date: April 9, 2021
Baseline Measurement Period: COVID-19 Vaccine Report as of 4/1/21, except for the pediatric population, for whom the baseline period starts with the 7/2/2021 COVID-19 Vaccine Summary Report

PIP Interventions (New or Enhanced) Initiated: 4/9/2021

Submission of Baseline Report Due: 5/7/2021

Submission of Interim Report Due: 12/31/2021

Submission of Final Report Due: 12/31/2022

Barrier Analysis, Interventions, and Monitoring

To be completed upon Proposal submission (to be updated for baseline, interim and final reports).

Table 4: Alignment of Barriers, Interventions and Tracking Measures

Barrier 1: Enrollees need help with accessing COVID-19 vaccine **MCO-identified Barriers:** Fear/hesitancy related to misinformation, side effects, personal/religious beliefs; large population size of members not engaged in CM; accurate contact information for successful outreach; member preference to self-schedule appointment[8]		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention to address barrier 1: 1a. Develop and implement COVID-19 vaccination outreach to enrollees engaged in case management. **Planned Start Date:** 4/9/2021 **Actual Start Date**: 4/1/2021 **Revision Date:** 10/1/2021; Retro-active to 7/2021	**Intervention tracking measure 1a: (<u>non-cumulative</u>)** *Percentage of enrollees age 16+ who are engaged in CM and had an appointment made for COVID-19 vaccination* N: *# enrollees with appointments made at any vaccine provider* D: *# enrollees otherwise engaged in case management*	N: 34 D: 608 R: 5.59%	N: 26 D: 562 R: 4.63%	N: 9 D: 476 R: 1.89%	N: 69 D: 503 R: 13.72%	N: 98 D: 610 R: 16.07%	N: 133 D: 752 R: 17.69%	N: 143 D: 864 R: 16.55%	N: 159 D: 971 R: 16.37%	N: 145 D: 1008 R: 14.38%	N: 102 D: 1014 R: 10.06%	N: 76 D: 961 R: 7.91%	*Data pending*

[8] Member preference to independently schedule vaccination appointments was noted early in the project; LDH guidance in October provided expansion of allowable data which was applied retroactively through July for review and analysis of intervention outcomes. Table 6. Next Steps provides additional insight into intervention additions and adaptations impacting ITM results.

Intervention to address barrier 1: 1b. Develop and implement COVID-19 vaccination outreach to enrollees not engaged in case management. **Planned Start Date:** 4/9/2021 **Actual Start Date**: 5/1/2021 **Revision Date:** 10/1/2021; Retro-active to 7/2021	**Intervention tracking measure 1b: (non-cumulative)** *Percentage of enrollees age 16+ who are NOT engaged in CM and had an appointment made for COVID-19 vaccination* N: *# enrollees with appointments made at any vaccine provider* D: *# enrollees NOT engaged in case management*	N: 317 D: 184381 R: 0.17%	N: 228 D: 182375 R: 0.13%	N: 86 D: 181938 R: 0.05%	N: 114 D: 181513 R: 0.06%	N: 342 D: 181875 R: 0.19%	N: 444 D: 178638 R: 0.25%	N: 299 D: 178835 R: 0.17%	N: 313 D: 179757 R: 0.17%	N: 328 D: 180353 R: 0.18%	N: 199 D: 180629 R: 0.11%	N: 95 D: 181699 R: 0.05%	*Data pending*
Intervention to address barrier 1for the pediatric population: 1c. Develop and implement COVID-19 vaccination outreach to the pediatric population. **Planned Start Date:** 07/01/21 **Actual Start Date:** 07/01/21 **Revision Date:** 10/1/2021; Retro-active to 7/2021, 12/2021, 6/2022[9]	**Intervention tracking measure 1c: (non-cumulative)** *Percentage of the eligible pediatric population based on authorization who had an appointment made for COVID-19 vaccination* *N: # enrollees with appointment made at any vaccine provider* *D: # eligible pediatric population based on authorization*	N: 91 D: 134829 R: 0.07%	N: 61 D: 131139 R: 0.05%	N: 25 D: 129303 R: 0.02%	N: 42 D: 128767 R: 0.03%	N: 177 D: 128693 R: 0.14%	N: 112 D: 186619 R: 0.06%	N: 310 D: 185961 R: 0.17%	N: 387 D: 185843 R: 0.21%	N: 498 D: 185770 R: 0.27%	N: 174 D: 185802 R: 0.09%	N: 491 D: 185987 R: 0.26%	*Data pending*

[9] Intervention expanded to incorporate newly added age-related subgroups: 12-15 years, July 2021; 5-11 years, December 2021; 6 months-4 years, June 2022.

Barrier 2: The large volume of eligible enrollees poses a challenge to enrollee reach via CM outreach alone **MCO-identified Barriers:** Large volume of members on care gap report; limited time/staff resources to access reports; frequent updates to vaccine provider lists		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention to address barrier 2: 2a. Distribute eligible enrollee lists to PCPs and facilitate referrals as needed. **Planned Start Date:** 5/1/2021 **Actual Start Date**:5/1/2021 **Revision Date**: 8/1/2021[10]	**Intervention tracking measure 2a: (<u>non-cumulative</u>)** *Percentage of enrollees where PCPs were provided with their eligible patient list.* N: *# enrollees whose PCP was provided with their list of eligible patients* D: *# eligible individuals*	N: 350072 D: 350072 R: 100.00%	N: 344000 D: 344000 R: 100.00%	N: 339898 D: 339898 R: 100.00%	N: 338717 D: 338717 R: 100.00%	N: 337531 D: 337531 R: 100.00%	N: 337985 D: 337985 R: 100.00%	N: 392794 D: 392794 R: 100.00%	N: 392503 D: 392503 R: 100.00%	N: 393777 D: 393777 R: 100.00%	N: 394608 D: 394608 R: 100.00%	N: 395004 D: 395004 R: 100.00%	N: 396335 D: 396335 R: 100.00%
Intervention to address barrier 2: 2b. Distribute vaccination site lists to PCPs. **Planned Start Date:** 4/1/2021 **Actual Start Date**: 4/1/2021 **Revision Date:** 8/1/2021[11]	**Intervention tracking measure 2b: (<u>non-cumulative</u>)** *Percentage of PCPs who were provided a list of available vaccine sites* N: *# PCPs provided a list of available vaccine sites* D: *# in network PCPs targeted for outreach/distribution*	N: 708 D: 708 R: 100.00%	N: 705 D: 705 R: 100.00%	N: 701 D: 701 R: 100.00%	N: 703 D: 703 R: 100.00%	N: 707 D: 707 R: 100.00%	N: 713 D: 713 R: 100.00%	N: 713 D: 713 R: 100.00%	N: 714 D: 714 R: 100.00%	N: 714 D: 714 R: 100.00%	N: 726 D: 726 R: 100.00%	N: 729 D: 729 R: 100.00%	N: 731 D: 731 R: 100.00%

[10] Eligible enrollee lists distributed via secure provider portal.

[11] Linkage to vaccine sites was expanded to the provider portal, provider resource page on our website, and provider newsletter emailed to providers weekly for broader distribution and ease of access to the most up-to-date available vaccine sites.

Barrier 3: Enrollees may need reminders for the second dose in a 2-dose series **MCO-identified Barriers:** Fear/hesitancy to receive 2nd dose due to side effects experienced with initial dose; inaccurate member contact information; timing of vaccine entry into LINKS		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention to address barrier 3: Eligible enrollees pending the 2nd dose of COVID vaccine will be outreached with reminder communications to facilitate completion of vaccination series. **Planned Start Date:** 05/01/21 **Actual Start Date**: *05/01/21* **Revision Date**: 6/1/2021[12]	**Intervention tracking measure 3: (<u>non-cumulative</u>)** *Percentage of enrollee's who were outreached for 2nd dose reminders for COVID-19 vaccination.* N: *# enrollees outreached for 2nd dose reminders for COVID-19 vaccination* D**:** *# eligible enrollees targeted for 2nd dose outreach*	N: 21369 D: 21369 R: 100.00%	N: 24182 D: 24182 R: 100.00%	N: 26357 D: 26357 R: 100.00%	N: 26538 D: 26538 R: 100.00%	N: 26749 D: 26749 R: 100.00%	N: 26688 D: 26688 R: 100.00%	N: 26785 D: 26785 R: 100.00%	N: 26843 D: 26843 R: 100.00%	N: 27206 D: 27206 R: 100.00%	N: 27477 D: 27477 R: 100.00%	N: 27559 D: 27559 R: 100.00%	N: 27689 D: 27689 R: 100.00%

[12] Second dose reminders mailed to member monthly (supplementing telephonic outreach).

Barrier 4: There may be disparities in receipt of COVID-19 vaccines **MCO-identified Barriers:** Lack of confidence in vaccine efficacy; fear/hesitancy related to misinformation, side effects, personal/religious beliefs		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention to address barrier 4: Eligible enrollees in susceptible subpopulations will receive tailored and targeted interventions to address observed disparities in receiving the COVID-19 vaccine. **Planned Start Date:** 05/01/21 **Actual Start Date**: 05/01/21 **Revision Date**: 7/15/2021; 5/1/2022[13]	**Intervention tracking measure 4:** **(non-cumulative)** *Percentage of eligible enrollees in identified disparity groups receiving tailored/ targeted outreach in collaboration with local providers to promote trust and engagement.* N: # *members within identified disparity group (Caucasian population) outreached via tailored messaging/ communication in collaboration with local provider to promote trust and engagement* D: # *members within identified disparity group (Caucasian population)*	N: 1072 D: 31541 R: 3.40%	N: 235 D: 41909 R: 0.56%	N: 290 D: 130347 R: 0.22%	N: 377 D: 129794 R: 0.29%	N: 6402[14] D: 129578 R: 4.94%	N: 8186 D: 143992 R: 5.69%	N: 10039 D: 143116 R: 7.01%	N: 4061 D: 140943 R: 2.88%	N: 6794 D: 141088 R: 4.82%	N: 361 D: 140018 R: 0.26%	N: 812 D: 139878 R: 0.58%	*Data pending*

[13] Incorporated Shots per 100 into member and provider messaging in July 2021; incorporated Shots per 100,000 into member and provider messaging in May 2022.

[14] Expanded member outreach through IVR and auto-dialer modalities (May-September).

Barrier 5: Enrollees may have difficulties with transportation or be homebound **MCO-identified Barriers:** *Fear/hesitancy related to vaccine efficacy, safety, side effects*		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention to address barrier 5: 5a. Eligible enrollees with transportation barriers/homebound status will be outreached to assess vaccination status and connection to plan resources to facilitate vaccination access. **Planned Start Date:** 05/01/21 **Actual Start Date**: 05/01/21 **Revision Date:** 6/1/2021[15]	**Intervention tracking measure 5a: (<u>non-cumulative</u>)** *Percentage of eligible enrollees with identified transportation/homebound barriers who were outreached for vaccination support and transportation coordination to vaccine appointments.* N: *# members with transportation/mobility barriers outreached to offer assistance with vaccine scheduling & transportation coordination.* D**:** *# eligible members with identified transportation/ mobility barriers*	N: 50 D: 4396 R: 1.14%	N: 56 D: 4598 R: 1.22%	N: 49 D: 5283 R: 0.93%	N: 46 D: 5428 R: 0.85%	N: 72 D: 5721 R: 1.26%	N: 189 D: 6473 R: 2.92%	N: 207 D: 6638 R: 3.12%	N: 105 D: 6826 R: 1.54%	N: 136 D: 7079 R: 1.92%	N: 118 D: 7359 R: 1.60%	N: 104 D: 7495 R: 1.39%	*Data pending*

[15] Transportation assistance offered with each member touchpoint.

Intervention to address barrier 5: 5b. Provide transportation for members with transportation/ mobility barriers to COVID vaccination sites **Planned Start Date:** 05/01/21 **Actual Start Date**: 05/01/21 **Revision Date:** 6/1/2021[16]	**Intervention tracking measure 5b: (<u>non-cumulative</u>)** *Percentage of eligible enrollees with identified transportation/ homebound barriers who were provided transportation to COVID vaccination sites.* *N: # members with transportation/mobility barriers provided transportation to COVID Vaccination sites* *D: # eligible members with identified transportation/ mobility barriers*	N: 91 D: 4396 R: 2.07%	N: 46 D: 4598 R: 1.00%	N: 38 D: 5283 R: 0.72%	N: 29 D: 5428 R: 0.53%	N: 41 D: 5721 R: 0.72%	N: 38 D: 6473 R: 0.59%	N: 27 D: 6638 R: 0.41%	N: 38 D: 6826 R: 0.56%	N: 37 D: 7079 R: 0.52%	N: 34 D: 7359 R: 0.46%	N: 18 D: 7495 R: 0.24%	*Data pending*
Barrier 6: Enrollees may be hesitant to vaccinate **MCO-identified Barriers:** *Fear/hesitation related to side effects*		**Jan 2022**	**Feb 2022**	**Mar 2022**	**Apr 2022**	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Sep 2022**	**Oct 2022**	**Nov 2022**	**Dec 2022**
Intervention tracking measure 6: Leverage the trusted relationship between members/providers to decrease vaccine hesitancy and increase vaccine administration	**Intervention tracking measure 6: (<u>cumulative</u>)** *Percentage of eligible enrollees who received vaccination following distribution of PCP co-branded collaterals to members[18]*	N: 4390 D: 35917 R: 12.22%	N: 4689 D: 37347 R: 12.56%	N: 4890 D: 37347 R: 13.09%	N: 5014 D: 37347 R: 13.43%	N: 5135 D: 37347 R: 13.75%	N: 5260 D: 47248 R: 11.13%	N: 5462 D: 47248 R: 11.56%	N: 5637 D: 57248 R: 11.93%	N: 5719 D: 47248 R: 12.10%	N: 5792 D: 47248 R: 12.26%	N: 5832 D: 47248 R: 12.34%	*Data pending*

[16] Transportation assistance offered with each member touchpoint.

[18] Original PCP/MCO co-branded mailer and member incentive expanded in 2022 to include additional shared member outreach resources, including targeted social media messaging and promotional materials, and provider incentives for vaccination events.

Planned Start Date: 06/01/21 **Actual Start Date**: 06/01/21 **Revision Date:** 7/1/2021, 12/9/2021, 6/30/2022[17]	N: # vaccine-eligible members vaccinated following targeted outreach through provider collaboration D: # vaccine-eligible members whose PCPs targeted for outreach with co-branded mailer												

[17] Intervention expanded to incorporate newly added age-related subgroups: 12-15 years, July 2021; 5-11 years, December 2021; 6 months-4 years, July, 2022.

Results

To be completed upon Baseline, Interim and Final Report submissions. The results section should present project findings related to performance indicators. ***Do not*** interpret the results in this section.

Table 5: Results-all data are from the first report of the month

Indicator	Description	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
Indicator 1	Measure A: Persons who received at least one vaccine dose	N: 123,117 D: 313,602 R: 39.26%	N: 127,355 D: 315,871 R: 40.32%	N: 130,213 D: 317,873 R: 40.96%	N: 132,288 D: 318,941 R: 41.48%	N: 133,763 D: 320,888 R: 41.69%	N: 135,234 D: 323,187 R: 41.84%	N: 144,265 D: 324,973 R: 44.39%	N: 145,435 D: 326,611 R: 44.53%	N: 146,818 D: 329,057 R: 44.62%	N: 147,789 D: 330,526 R: 44.71%	N: 148,773 D: 332,283 R: 44.77%	N: 149,553 D: 334,066 R: 44.77%
	Measure B: Persons who received a complete vaccine course	N: 104,511 D: 313,602 R: 33.33%	N: 108,102 D: 315,871 R: 34.22%	N: 110,886 D: 317,873 R: 34.88%	N: 113,339 D: 318,941 R: 35.54%	N; 114,852 D: 320,888 R: 35.79%	N: 116,258 D: 323,187 R: 35.97%	N: 123,938 D: 324,973 R: 38.14%	N: 124,979 D: 326,611 R: 38.27%	N: 126,260 D: 329,057 R: 38.37%	N: 127,144 D: 330,526 R: 38.47%	N: 128,046 D: 332,283 R: 38.54%	N: 128,680 D: 334,066 R: 38.52%
Indicator 2	Racial/ethnic disparity in receipt of at least one dose of COVID-19 vaccine												
	Measure A: Difference between the percentage of eligible White and Black individuals receiving at least one dose	R: 12.69%	R: 13.55%	R: 14.07%	R: 14.51%	R: 14.74%	R: 14.96%	R: 16.08%	R: 16.32%	R: 16.49%	R: 16.65%	R: 16.74%	R: 16.82%
	Measure B: Difference between the percentage of eligible White and Hispanic/Latino (H) individuals receiving at least one dose	R: 3.50%	R: 3.39%	R: 3.71%	R: 3.89%	R: 3.93%	R: 4.25%	R: 6.24%	R: 6.40%	R: 6.31%	R: 6.26%	R: 6.41%	R: 6.41%
	Measure C: Difference between the percentage of eligible White and those of	R: 17.49%	R: 17.00%	R: 17.03%	R: 17.16%	R: 17.23%	R: 17.22%	R: 19.86%	R: 19.90%	R: 19.81%	R: 19.74%	R: 19.73%	R: 19.81%

Indicator	Description	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
	Other, Unknown, or Missing (O) race/ethnicity receiving at least one dose												
Indicator 3	Racial/ethnic disparity in receipt of a complete COVID-19 vaccine series[19]												
	Measure A: Difference between the percentage of eligible White and Black individuals receiving a complete vaccine series	R: 9.99%	R: 10.72%	R: 11.26%	R: 11.84%	R: 12.11%	R: 12.35%	R: 13.31%	R: 13.53%	R: 13.71%	R: 13.87%	R: 13.98%	R: 14.06%
	Measure B: Difference between the percentage of eligible White and Hispanic/Latino individuals receiving a complete vaccine series	R: 2.31%	R: 1.94%	R: 2.45%	R: 2.52%	R: 2.69%	R: 2.90%	R: 4.32%	R:4.46%	R: 4.35%	R: 4.35%	R: 4.49%	R: 4.43%
	Measure C: Difference between the percentage of eligible White and those of Other, Unknown, or Missing race/ethnicity receiving a complete vaccine series	R: 16.90%	R: 16.34%	R: 16.51%	R: 16.61%	R: 16.68%	R: 16.75%	R: 19.08%	R: 19.16%	R: 19.10%	R: 19.05%	R: 19.04%	R: 19.14%

[19] This refers to completion of a 2-dose series for 2-dose vaccines (e.g., Pfizer and Moderna) or receipt of one dose for vaccines only requiring one dose (e.g., Johnson and Johnson) based on approved age recommendations.

Indicator	Description	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
Indicator 4[20]	Pediatric population all ages who received at least one vaccine dose	N: 22,688 D: 158,923 R: 14.28%	N: 26,945 D: 158,932 R: 16.95%	N: 28,475 D: 159,123 R: 17.89%	N: 29,534 D: 158,951 R: 18.58%	N: 29,734 D: 159,097 R: 18.69%	N: 29,902 D: 159,437 R: 18.75%	N: 31,657 D: 220,023 R: 14.39%	N: 32,061 D: 219,891 R: 14.58%	N: 32,273 D: 220,112 R: 14.66%	N: 31,957 D: 219,462 R: 14.56%	N: 31,660 D: 219,342 R: 14.43%	N: 31,193 D: 219,013 R: 14.24%
	Pediatric population all ages who received at least one vaccine dose	N: 15,906 D:158,923 R: 10.01%	N: 19,375 D: 158,932 R: 12.19%	N: 21,613 D: 159,123 R: 13.58%	N: 23,051 D: 158,591 R: 14.50%	N: 23,348 D: 159,097 R: 14.68%	N: 23,605 D: 159,437 R: 14.81%	N: 24,929 D: 220,023 R: 11.33%	N: 25,072 D: 219,891 R: 11.40%	N: 25,316 D: 220,112 R: 11.50%	N: 25,200 D: 219,462 R: 11.48%	N: 25,084 D: 219,342 R: 11.44%	N: 24,782 D:219,013 R: 11.32%
	Measure A: Pediatric population ages 12-15 years[21] who received at least one vaccine dose	N: 16,215 D: 59,290 R: 27.35%	N: 17,195 D: 59,323 R: 28.99%	N: 17,488 D: 59,399 R: 29.44%	N: 17,555 D: 59,363 R: 29.57%	N: 17,562 D: 59,472 R: 29.53%	N: 17,611 D: 59,592 R: 29.55%	N: 18,493 D: 59,544 R: 31.06%	N: 18,449 D: 59,559 R: 30.98%	N: 18,344 D: 59,574 R: 30.79%	N: 18,097 D: 59,502 R: 30.41%	N: 17,936 D: 59,523 R: 30.13%	N: 17,711 D: 59,378 R: 29.83%
	Measure B: Pediatric population ages 12-15 years who received a complete vaccine series	N: 13,019 D: 59,290 R: 21.96%	N: 13,782 D: 59,323 R: 23.23%	N: 14,220 D: 59,399 R: 23.94%	N: 14,434 D: 59,363 R: 24.31%	N: 14,466 D: 59,472 R: 24.32%	N: 14,533 D: 59,592 R: 24.39%	N: 15,253 D: 59,544 R: 25.62%	N: 15,180 D: 59,559 R: 25.49%	N: 15,111 D: 59,574 R: 25.37%	N: 14,913 D: 59,502 R: 25.06%	N: 14,782 D: 59,523 R: 24.83%	N: 14,600 D: 59,378 R: 24.59%
	Measure C: Pediatric population ages 5-11 years[22] who received at least one vaccine dose	N: 6,473 D: 99,633 R: 6.50%	N: 9,750 D: 99,609 R: 9.79%	N: 10,987 D: 99,724 R: 11.02%	N: 11,979 D: 99,588 R: 12.03%	N: 12,172 D: 99,625 R: 12.22%	N: 12,291 D: 99,845 R: 12.31%	N: 13,058 D: 99,735 R: 13.09%	N: 13,290 D: 99,799 R: 13.32%	N: 13,441 D: 100,083 R: 13.43%	N: 13,312 D: 99,744 R: 13.35%	N: 13,175 D: 99,790 R: 13.20%	N: 12,959 D: 99,745 R: 12.99%
	Measure D: Pediatric population ages 5-11 years who received a complete vaccine series	N: 2,887 D: 99,633 R: 2.90%	N: 5,593 D: 99,609 R: 5.61%	N: 7,393 D: 99,724 R: 7.41%	N: 8,617 D: 99,588 R: 8.65%	N: 8882 D: 99,625 R: 8.92%	N: 9,072 D: 99,845 R: 9.09%	N: 9,669 D: 99,735 R: 9.69%	N: 9,793 D: 99,799 R: 9.81%	N: 9,950 D: 100,083 R: 9.94%	N: 9,942 D: 99,744 R: 9.97%	N: 9,914 D: 99,790 R: 9.93%	N: 9,789 D: 99,745 R: 9.81%
	Measure E: Pediatric population ages 6 months – 4 years[23] who received at least one vaccine dose	-	-	-	-	-	N: 65 D: 60,739 R: 0.11%	N: 106 D: 60,744 R: 0.17%	N: 322 D: 60,533 R: 0.53%	N: 488 D: 60,455 R: 0.81%	N: 548 D: 60,216 R: 0.91%	N: 549 D: 60,029 R: 0.91%	N: 523 D: 59,890 R: 0.87%

[20] For the pediatric population, the denominator equals the number of eligible members based on the FDA authorization. The denominator will change significantly as the age range of pediatric authorization changes. The baseline period for children ages 12-15 years will start with the 7/1/2021 COVID-19 Vaccine Summary Report. The baseline period for children ages 5-11 years will start with the 12/9/21 COVID-19 Vaccine Summary Report. The baseline period for children ages 6 months-4year will start with the 6/30/22 COVID-19 Vaccine Summary Report.

[21] The baseline period for children ages 12-15 years will start with the 7/1/2021 COVID-19 Vaccine Summary Report.

[22] The baseline period for children ages 5-11 years will start with the 12/9/2021 COVID-19 Vaccine Summary Report.

[23] The baseline period for children ages 6 months-4 years will start with the 6/30/2022 COVID-19 Vaccine Summary Report.

Indicator	Description	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022
	Measure F: Pediatric population ages 6 months – 4 years who received a complete vaccine series	-	-	-	-	-	N: 7 D: 60,739 R: 0.01%	N: 7 D: 60,744 R: 0.01%	N: 99 D: 60,533 R: 0.16%	N: 255 D: 60,455 R: 0.42%	N: 345 D: 60,216 R: 0.57%	N: 388 D: 60,029 R: 0.65%	N: 393 D: 59,890 R: 0.66%

Discussion

To be completed upon Interim and Final Report submissions. The discussion section is for explanation and interpretation of the results. In the Final Report Discussion, revise the Interim Discussion so that the Final Discussion Section represents one comprehensive and integrated interpretation of results, rather than a separate add-on to the Interim discussion.

Discussion of Results

- **Interpret the performance indicator rates for each measurement period,** *i.e., describe whether rates improved or declined between baseline and interim, between interim and final and between baseline and final measurement periods.*

  Analysis of COVID-19 vaccination indicator performance demonstrated improvement from the baseline to final measure in each of the indicated subgroups though not meeting the national goals set forth by President Biden in 2021. As the pandemic has shifted and vaccine-eligible members willing to receive vaccination did so earlier in the pandemic, the state rate of vaccination supports a slowing trend in vaccination from interim to final and LHCC has observed similar trending.

  COVID-19 vaccination indicators for all subgroups increased from baseline and interim during 2022. The adult and pediatric subgroups representing 12 to 15 year olds increased from the MY2021 baseline captured in April 2021 and the interim measures reported in December 2021. Performance indicator data was added for two new pediatric age-related subgroups during MY2022:
  - the baseline vaccine rate for members ages 5 to 11 was captured in December 2021, and performance indicator reporting began in January 2022;
  - the baseline vaccine rate for members ages 6 months to 4 years was captured in June 2022, and performance indicator reporting began in July 2022.

  Each of these newly added indicators increased from baseline during MY2022.

  Each of the racial/ethnic subgroup performance indicators (White, Black, Hispanic/Latino, and Other/Unknown/Missing) also increased from interim as well as baseline with the Other/Unknown/Missing and Black racial/ethnic subgroups outperforming White and Hispanic/Latino subgroups. Additional indicator discussion follows:

  - **Adult Vaccination**
    Adult members 16 years and older receiving the first dose of any approved COVID vaccination improved for all measure periods (baseline to interim, between interim and final, and between baseline and final). Adult members 16 years and older receiving the first dose of any approved COVID vaccination is 44.77 percent, a 33.60 percentage point increase from baseline, a 26.10 percentage point increase from baseline to interim, and a 7.50 percentage point increase from interim to final.

    In addition, adult members 16 years and older receiving either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson) also improved over all measurement periods. Adult members 16 years and older receiving either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson) is 38.52 percent, a 32.93 percentage point increase from baseline, a 26.07 percentage point increase from baseline to interim, and a 6.86 percentage point increase from interim to final.

  - **Pediatric Vaccination**
    Pediatric members 6 months to 15 years of age receiving the first dose of any approved COVID vaccination or those receiving two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) improved for all measure periods (baseline to interim, between interim and final, and between baseline and final).

Pediatric members 12 to 15 years of age receiving the first dose of any approved COVID vaccination demonstrated a YTD rate of 29.83 percent, representing a 24.21 percentage point increase from the baseline MY2021, a 19.88 percentage point increase from baseline MY2021 to interim MY2021, and a 4.33 percentage point increase from MY2021 interim to final rate in 2022. This same age subgroup receiving two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) has a YTD rate of 24.59 percent, representing a 21.06 percentage point increase from the baseline MY2021, a 17.27 percentage point increase from baseline MY2021 to interim MY2021, and a 3.79 percentage point increase from MY2021 interim to final rate in 2022.

Pediatric members 5 to 11 years of age were approved for vaccine eligibility on November 2, 2021, and baseline data for this subgroup was first distributed on December 9, 2021. Performance indicator rates for this 5 to 11 year group were reported beginning in January 2022. Pediatric members in this age subgroup receiving the first dose of any approved COVID vaccination has a YTD rate of 12.99 percent, representing a 9.80 percentage point increase from the baseline. Pediatric members in this subgroup receiving two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) has a YTD rate of 9.81 percent, representing an 8.93 percentage point increase from the baseline.

Pediatric members 6 months to 4 years of age were approved for vaccine eligibility on June 18, 2022, and data for this subgroup was first distributed June 30, 2022. Pediatric members in this subgroup receiving the first dose of any approved COVID vaccination has a YTD rate of 0.87 percent, representing a 0.76 percentage point increase from the baseline. Pediatric members in this subgroup receiving two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) has a YTD rate of 0.66 percent, representing a 0.65 percentage point increase from the baseline.

- **Vaccination by Race**

  White members receiving the first dose of any approved COVID vaccination demonstrated a YTD rate of 34.41 percent, a 26.34 percentage point increase from the baseline MY2021 measure, a 22.02 percentage point increase from baseline to interim MY2021, and a 4.32 percentage increase from interim MY2021 to final MY2022. Additionally, 29.65 percent received either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson), representing a 25.65 percentage point increase from the baseline MY2021 measure, a 21.69 percentage point increase from baseline to interim MY2021, and a 3.96 percentage increase from interim MY2021 to final MY2022.

  Black members receiving the first dose of any approved COVID vaccination demonstrated a YTD rate of 51.23 percent, a 39.89 percentage point increase from the baseline MY2021 measure, a 30.02 percentage point increase from baseline to interim MY2021, and a 9.87 percentage increase from interim MY2021 to final MY2022. Additionally, 43.71 percent received either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson), representing a 38.05 percentage point increase from the baseline MY2021 measure, a 29.01 percentage point increase from baseline to interim MY2021, and a 9.04 percentage increase from interim MY2021 to final MY2022.

  Hispanic/Latino members receiving the first dose of any approved COVID vaccination demonstrated a YTD rate of 40.82 percent, a 32.85 percentage point increase from the baseline MY2021 measure, a 24.96 percentage point increase from baseline to interim MY2021, and a 7.89 percentage increase from interim MY2021 to final MY2022. Additionally, 34.08 percent received either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson), representing a 30.67 percentage point increase from the baseline MY2021 measure, a 24.06 percentage point increase from baseline to interim MY2021, and a 6.61 percentage increase from interim MY2021 to final MY2022.

  Member subgroups with race/ethnicity noted as ‘Other/Unknown/Missing’ had the highest performance for members receiving the first dose of any approved COVID vaccination at a YTD rate of 54.22 percent, a 40.64 percentage point increase from the baseline MY2021 measure, a 33.59

percentage point increase from baseline to interim MY2021, and 7.05 percentage point increase from interim MY2021 to final MY2022. Additionally, 48.79 percent received either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson), a 41.85 percentage point increase from the baseline MY2021, a 35.23 percentage point increase from baseline to interim My2021, and a 6.62 percentage point increase from interim My2021 to final MY2022.

- **Racial/ethnic Disparity**
  In comparison from baseline MY2021 through MY2022, an overall racial/ethnic disparity trend has continued throughout the course of the project. Other/Unknown/Missing, Black, and Hispanic/Latino subgroups have performed more favorably than the White racial/ethnic subgroup throughout both measure years. Additional observations in racial/ethnic disparities are, as follows:

  - While the rate of growth for the interim MY2021 to final MY2022 are lower than those observed across all subgroups in the initial measurement period (between baseline MY2021 and interim MY2021), the Black and Hispanic subgroups had greater rate increases during MY2022 than the 'Other/Unknown/Missing' subgroup.
  - The rate for the Black subgroup receiving the first dose of any approved COVID vaccination increased by 9.87 percentage points during MY2022, nearly 3 percentage points higher than the 7.05 percentage point increase of the "Other/Unknown/Missing" group; and the Black subgroup receiving either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson) increased by 9.04 percent during MY2022, nearly 2.5 percentage points higher than the 6.62 percent of the "Other/Unknown/Missing" group.
  - Similarly, the rate for the Hispanic subgroup receiving the first dose of any approved COVID vaccination increased by 7.89 percentage points during MY2022 in comparison to the 7.05 percentage point increase of the "Other/Unknown/Missing" group; and the Hispanic subgroup receiving either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson) increased by 6.61 percentage points during MY2022, on par with the "Other/Unknown/Missing" group.
  - The White subgroup remains the lowest performing subgroup, with a 4.32 percentage point increase of these members receiving the first dose of any approved COVID vaccination during MY2022, and 3.96 percentage point increase of these members receiving either two doses of the multi-dose vaccines (e.g., Pfizer and Moderna) or one dose of the single-dose vaccine (e.g., Johnson and Johnson).
  - The percentage of members of Other/Unknown/Missing racial/ethnic origins who received the first dose of any approved COVID vaccination showed the largest increase in percentage points increasing 40.64 percentage points from baseline to final. In comparison, Black members who received the first dose of any approved COVID vaccination increased by 39.89 percentage points while Hispanic/Latino members increased by 32.85 percentage point and White members increased by 26.34 percentage points from baseline to final.
  - The percentage of members of Other/Unknown/Missing racial/ethnic origins who received a single or multi-dose vaccine series of any approved COVID vaccination also showed the largest increase in percentage points increasing 41.85 percentage points from baseline to final. In comparison, Black members who received a single or multi-dose vaccine series of any approved COVID vaccination increased by 38.05 percentage points while Hispanic/Latino members increased by 30.67 percentage point and White members increased by 25.65 percentage points from baseline to final.
  - Feedback from members in the White subgroup indicates this group was more hesitant to receive vaccination due to social influences (e.g., social media, news media, political rhetoric), concerns about unknown long-term effects of the vaccine on their health, lack of trust in the newer mNRA vaccine delivery method, and questions regarding vaccine efficacy. Lack of understanding regarding scientific facts supporting efficacy were particularly challenging as messaging transitioned from reducing transmission to mitigating severe illness.

- **Explain and interpret the results by reviewing the degree to which objectives and goals were achieved.** *Use your ITM data to support your interpretations.*

  The overall size and scope of the target population is substantial, growing to over 560,000 members eligible for vaccination near the end of 2022. This population grew significantly as younger age subgroups were approved for vaccine eligibility between November 2021 and June 2022. This volume presented additional challenges to effective outreach, dissemination of education, and referral/appointment scheduling for vaccinations – all prominent barriers throughout the project. In addition, the lifting of state and federal restrictions since the onset of the pandemic has lessened member concerns over transmission, as has the advancement in the treatment availability to curve severe illness when infected by COVID-19, which did not exist at the pandemic's onset.

  ITM data was collected, along with member and provider feedback, for monthly analysis to guide next steps. Monitoring of appointment scheduling assistance for adult members enrolled in case management (*ITM 1a*) began at 0.50 percent at the onset of the project and averaged between 10 to 15 percent in the last half of MY2022. Historically, members enrolled in case management have more significant healthcare needs and are therefore more engaged in assistive services for coordination of care, making this population generally more receptive to vaccination as other underlying comorbidities put them at higher risk for serious complication and/or hospitalization from a COVID infection versus the general population. Linkage of this population to case managers allowed for a more thorough vaccine education process to address hesitancy, encourage appointment scheduling, and reinforce positive impacts of vaccination.

  Appointment scheduling for the broader group of members not engaged in case management (*ITM 1b*) proved more difficult to achieve. An ongoing challenge included the inability to reach members by telephone due to inaccurate member contact information. Member-facing teams focused on alternative sources to extrapolate updated member demographic information, including existing provider relationships, authorization records, and other claims data. Members who were successfully outreached were provided education on vaccine merits, safety, and accessibility; however, many declined vaccinations or declined appointment assistance, indicating a preference to self-schedule and continued hesitation to schedule due to personal beliefs. Member abrasion surrounding continued outreach and assessment of vaccine status also became more prevalent as the pandemic extended on. Members noted they had been vaccinated already despite current data available to the plan through LINKS or other claims data. Others declined assistance to be vaccinated due to personal fears/beliefs. Review and discussion surrounding member feedback led to implementation of alternative methods to address the broader population either in-person through community events or through overlapping (telephonic) HEDIS well-visit outreach. Earlier in the pandemic, the rate of appointment scheduling followed the infection rate trends noted by the state and nation, with higher rates of infection leading to more members getting vaccinated. At the height of the Delta variant surge in 2021, appointment scheduling for adult members not in case management peaked at 0.27 percent; however, as COVID-19 infection rates continued through 2022, this correlation to spikes in infection rates has waned. Higher rates of appointment scheduling were noted during the summer months (May through September), ranging from 0.17– 0.25 percent, and peaking in June. Overlapping HEDIS well-visit outreach with COVID education allowed for a broader messaging and linkage encouraging vaccine discussion with the trusted medical provider.

  The intervention for pediatric appointment scheduling assistance (*ITM 1c*) expanded to include the 5-11 and 6 months - 4 year old age groups as the CDC released new vaccine eligibility guidelines. As a result of these added age groups, the denominator population grew rapidly from approximately 42,000 members in 2021 to over 185,000 members by end of 2022. Rates for appointment scheduling assistance were initially low in January (0.07 percent) as a result of the newly added 5-11 year old population. Strategies utilized to outreach this large population included automated/IVR/direct telephonic outreach by all member-facing teams, incoming member services calls, community and back-to-school events, and provider promotion events. Telephonic outreach to members' parent/guardians offered education to inform, dispel myths, and address hesitations, as well as assistance to schedule vaccine appointments or to connect members with a trusted provider or local vaccine events. Our most successful strategies

included direct manual and automated dialing targeting pediatric members in overlapping HEDIS and PIP populations. As with adult members not in case management, pediatric outcomes (*ITM 1c*) increased during the summer months (May through September) as this initiative found footing and success offering parents/guardians education and assistance to schedule well-visit appointments with either a trusted provider or a specific COVID vaccine appointment at a local pharmacy, also offering transportation scheduling when needed. In May, pediatric appointment scheduling was 0.14 percent, increasing from July through September to 0.27 percent (and 0.26 percent in November). As vaccine accessibility improved and additional age-related subgroups were approved for vaccine delivery, members who were already vaccinated were notably more likely to vaccinate their children as they became vaccine eligible.

Providers received lists of vaccine-eligible members to engage member outreach for vaccination appointments, focusing on the trusted member/provider relationship to reinforce the importance of vaccination, dispelling misinformation, and providing vaccine administration. These reports are distributed monthly by automated distribution through the secure provider portal to ensure 100 percent of all member care gaps are delivered to providers each month. *ITM 2a* reflects the number of members in any eligible age group whose provider received member care gap information, including identification of members with a second dose overdue. Provider Network teams regularly outreach providers to deliver COVID-19 education and information regarding available provider incentives, assist providers with accessing vaccine resources and reinforce usage of care gap reports. The number of members reported through these eligibility reports has evolved during MY2022, increasing to nearly 340,000 with the addition of the 5 to 11 year old age group in January, and again to over 392,000 in June when the 6 months to 4 year age group as added. Provider feedback indicates a positive response to the use of care gaps and providers find them to be of assistance; however, some providers noted insufficient staffing to review and connect the care gap reports to patient visits is timely and consistent use is limited to a smaller number of providers. A similar electronic distribution process was deployed to distribute available vaccine sites to providers as indicated in *ITM 2b*. Linkage to vaccine sites was expanded to the provider portal, provider resource page on our website, and provider newsletter emailed to providers weekly for broader distribution and quick access to the most up-to-date available vaccine sites. The linkage to vaccine sites has recently become more valuable as provider feedback indicates lower vaccine uptake leading providers discarding expired vials of the COVID-19 vaccine. In order to reduce waste of vaccine supply, some providers have transitioned to referring members to a pharmacy (or other vaccine provider) for vaccination.

Member engagement to promote initial vaccinations was an early priority, however further analysis of the project indicated ensuring member completion of the multi-dose vaccine series should be a parallel focus in this project. A recurring program was developed to distribute second dose reminders to every member identified as past due for the second dose of multi-dose series (e.g., Pfizer or Moderna), based on member information provided by LDH *(reflected in ITM 3)*. This process included 100 percent of members identified through the LDH/LINKS system in need of second dose. Identified members were sent monthly second dose reminders, and second dose follow-up was incorporated into all member outreach efforts, until successful completion of the vaccine series. Limitations to this process were identified through member feedback as members report continued receipt of second dose reminders after completing a vaccine series, signaling delays in entry of vaccine administration into the LINKS system or potential delays in claims submission. Consideration of member abrasion risks were discussed regularly, in relation to potentially duplicative outreach attempts that may occur due to timing of refreshed data or data inaccuracies, which may impact member engagement and response to outreach efforts for future initiatives. Based on data reviewed, on average members received three reminders before completed vaccine records were recorded; however, as in 2021, we are unable to pinpoint record delay versus lack of vaccine administration until the vaccination details are received.

The White racial/ethnic member population was identified as the largest disparate group amongst all racial/ethnic groups measured for COVID vaccination as the PIP began. As mentioned in the performance indicator discussion above, the White population continues to underperform in comparison to the Hispanic, Black, and Other/Unknown/Missing populations. Targeted outreach efforts with tailored messaging encouraging collaboration with a trusted provider to promote vaccine engagement was tracked and monitored (*ITM 4*) for this population throughout MY2022. As additional vaccine-eligible age

groups have been included in the PIP, the population of identified White members has also increased. Targeted outreach to this group was 3.4 percent in January 2022, dropping in the first few months of the year as new pediatric age groups were added to the denominator population. Monitoring of this measure identified a need to increase outreach volume, and outreach efforts were expanded using a regional approach that reached its highest point in July at 7.01 percent. Overall outreach to this group averaged 3 percent monthly during MY2022. Community events focused on more generally disparate and higher populated regions across Louisiana, including areas in New Orleans, Baton Rouge, Shreveport, and Monroe. In addition, outreach targeting Hispanic members through parental outreach for pediatric-focused PIP included education and appointment scheduling assistance for COVID vaccination by overlapping PIP and HEDIS well-visit outreach efforts to maximize member contacts and reduce overall abrasion from multiple outreach campaigns.

Early in the project, member transportation was identified as a concern surrounding access to vaccination for members with transportation and/or mobility issues (within the previous 6 months); however, subsequent member feedback collected indicates that lack of transportation has not been a significant barrier to vaccination. Intervention tracking continues to monitor members outreached (*ITM 5a*) to provide assistance for those who require coordination of transportation services to receive COVID vaccination services and indicates 1.63 percent of members from this group are outreached monthly. Members successfully outreached for appointment scheduling overwhelmingly identify hesitancy regarding concerns for vaccine efficacy, vaccine safety, or side effects as primary barriers to vaccine completion over transportation. NEMT utilization for COVID vaccination was also tracked and monitored (*ITM 5b*) peaking in January 2022 at 2.07 percent of the population, trending at or below 1 percent for the remainder of the year. However, it was noted that correlations between NEMT utilization and vaccination gap closures were limited since transportation vendor records capture primary visit reasons/indications. As a result, any trips provided primarily for non-COVID related care that may have included COVID vaccine administration may not be reflected in measure outcomes.

Emphasis on the member-provider relationship has been impactful in enhancing efforts to overcome vaccine hesitancy throughout the project. Partnering with select participating provider groups to offer co-branded provider/health plan materials to drive appointment scheduling (*ITM 6*) and included a member incentive to initiate dialogue with providers. This provider partnership was expanded in 2022 to provide additional support to assist providers as vaccine eligibility expanded to younger populations. The partnership allows participating practices to target members for vaccination through a hosted vaccine promotion events or clinic day for their patient population; in turn, LHCC provides a promotional tool kit, including press release templates , blog/website articles, social media posts and graphics, and printable flyer templates in addition to promotional email resources for distribution to vaccine-eligible members by the provider partner (if desired), and a provider incentive to offset the cost of additional resources required for coordinating these events. This measure tracks the providers' cumulative impact on assigned members throughout the year and resulted in 2,350 COVID vaccines (18 percent) during MY2022. Rates for this ITM fluctuated slightly month-over-month new age groups were added to the denominator population; overall, however, outcomes remained steady, ranging from 12-14 percent each month. In reviewing age-specific outcomes, adult outcomes range from 15-17 percent vaccinated and pediatric outcomes range from 8-11 percent vaccinated.

- **What factors were associated with success or failure?** *For example, in response to stagnating or declining ITM rates, describe any findings from the barrier analysis triggered by lack of intervention progress, and how those findings were used to inform modifications to interventions.*

  Adult members engaged in case management with LHCC have shown to be more receptive to vaccine scheduling as our case management team outreached and educated members regarding COVID vaccination. These members benefit from one-to-one education regarding the importance of vaccination, especially when members are hesitant. Updates to case management outreach assessments in the electronic health record (clinical documentation system) allowed for ease of collecting and extrapolating PIP-related outcomes and barriers to success. Additional data was helpful in guiding discussions around stagnating measures and developing strategies for next steps.

Early in the pandemic, participating providers took part in distribution of co-branded mailers with LHCC to promote the trusted messenger relationship, reduce vaccine hesitancy, and increase vaccine administration. This initiative was expanded to increase the impact by partnering with providers to assist with offering vaccine clinics/days in office and collaboratively promote the events through promotional kits with templates for press releases, social media messaging, fliers, blog/website articles, printable fliers, as well as a provider incentive to offset resources or expenses related to these events. This initiative was particularly impactful in vaccine delivery to members in the adult age group. Development of a regional approach to address the growing pediatric vaccine eligible population gained footing later in the project. Initiatives were developed to narrow the focus on regions of the state with the lowest pediatric vaccine rates, including targeted outreach via telephone while overlapping with other HEDIS and performance improvement project outreaches. Outreach included addressing the member's vaccine status, education regarding COVID-19 vaccination, and appointment scheduling. This same methodology was applied to the Hispanic population utilizing translation services via telephonic outreach assisting Hispanic members with appointment scheduling and transportation if needed.

Challenges in contacting members continues to impact overall outcomes of the project. Inaccurate or missing contact information is a primary reason, limiting opportunities to communicate vaccine education, dispel vaccine myths, and aid to schedule vaccine appointments. Successful member outreach and feedback provides that vaccine hesitancy is driven by myths surrounding the vaccine, concerns regarding efficacy, potential/perceived side effects, refusal due to personal beliefs - all identified as member barriers to vaccinate. In addition, member encounters indicate a higher preference to self-schedule vaccine appointments rather than obtaining assistance from a health plan staff member. Second dose reminders proved helpful in continuing members through to the completion of the two dose series; however, continued member hesitation and the large overall population size continued to be problematic in gaining significant ground for second dose completion.

Timely collection and analysis of outcomes data was impacted by variability in updates to the LINKS immunization registry, particularly since information availability was dependent on external variables outside the MCO's control (i.e., timely documentation/claims submission by providers, data validation and distributions by state agencies, etc.). Such delays also created additional abrasion among members who have been outreached for scheduling assistance by the health plan or providers since previous vaccine completion was not yet visible. Additionally, as new pediatric age groups have been added to the project, overlapping outreach to parents who previously indicated refusal to vaccinate has contributed to higher volumes of blocked or disconnected calls, impacting all telephonic outreach modalities and extending beyond COVID campaigns – ultimately having an adverse impact on member engagement efforts in general.

Continual growth in overall vaccine-eligible population size presented challenges to effective member outreach, as the population increased by over 51 percent from 2021 to end of year 2022. This large volume of needed outreach necessitated a heavier reliance on automatic dialing, social media messaging and other indirect means of communication compared to the preferred direct one-to-one or face-to-face contact options. Participation at community events has assisted with the ability to reach members face-to-face and offer education to combat vaccine hesitancy and overcome member barriers.

As we approach year end, the ongoing pandemic environment presents an additional challenge. Member refusals to vaccinate highly correlate to the length of time they have remained unvaccinated. Additional factors that are likely reinforcing opposition to vaccination include the overall decrease in infection rates within the state and nation, lessening the isolation/masking requirements regardless of vaccine status, removal of mandate to vaccinate children for school and sports activities, and the increasing availability of treatments to prevent serious illness when an infection does occur.

Limitations

As in any population health study, there are study design limitations for a PIP. Address the limitations of your project design, i.e., challenges identified when conducting the PIP (e.g., accuracy of administrative measures that are specified using diagnosis or procedure codes are limited to the extent that providers and coders enter

the correct codes; accuracy of hybrid measures specified using chart review findings are limited to the extent that documentation addresses all services provided).

- **Were there any factors that may pose a threat to the internal validity the findings?**
  Definition and examples: internal validity means that the data are measuring what they were intended to measure. For instance, if the PIP data source was meant to capture all children 5-11 years of age with an asthma diagnosis, but instead the PIP data source omitted some children due to inaccurate ICD-10 coding, there is an internal validity problem.

  Members with transportation and/or homebound barriers were identified through claims data or previous transportation utilization. Additionally, abstraction of vaccine-related activity through vendor transportation data was limited due to required documentation of primary reasons for visits captured when members request transportation assistance. As a result, the percentage of members provided transportation for COVID vaccination is likely skewed since members receiving vaccinations during other primary visit reasons may not be correlated as a COVID vaccine trip.

- **Were there any threats to the external validity the findings?**
  Definition and examples: external validity describes the extent that findings can be applied or generalized to the larger/entire enrollee population, e.g., a sample that was not randomly selected from the eligible population or that includes too many/too few enrollees from a certain subpopulation (e.g., under-representation from a certain region).

  Vaccine administration entries into the LINKS system are dependent on individual provider processes and internal administrative support. Similarly, vaccine administration captured through administrative claims data is subject to the inherent delays associated with claims submission processes. Each of these potentially impacted performance indicator vaccination rates and/or intervention tracking measure outcomes and analysis.

- **Describe any data collection challenges.**
  Definition and examples: data collection challenges include low survey response rates, low medical record retrieval rates, difficulty in retrieving claims data, or difficulty tracking case management interventions.

  The primary challenge to data collection was the ability to successfully outreach members to assess and collect relevant information to guide interventions. Expanding the outreach efforts was a continual process - engaging automated dialing systems, incorporating multiple outreach methods to increase connection to members and overlapping outreach from other HEDIS and PIP initiatives to reduce member abrasion. Member feedback obtained from call center encounters indicated many members noted they had already been vaccinated despite available data showing otherwise, likely a result of lag time for large vaccine providers in submitting data to LINKS and/or vaccination claims. As the project continued throughout 2022, member encounters across all member-facing teams more strongly indicated vaccine hesitancy or direct refusal to vaccinate. Members further expressed objection to continued COVID vaccine call volume which limited opportunities for further data collection and/or dialogue. Member encounters indicating vaccine hesitancy or direct refusal limited opportunities for further data collection and/or dialogue through motivational interviewing techniques that might eventually lead to vaccine acceptance. In these instances, there was not an opportunity to provide data reflective of successful case management intervention.

Next Steps

This section is completed for the Final Report. For each intervention, summarize lessons learned, system-level changes made and/or planned, and outline next steps for ongoing improvement beyond the PIP timeframe.

Table 6: Next Steps

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
COVID-19 vaccination outreach to enrollees engaged in case management	Competing outreach initiatives limited number of successful outreaches Vaccine hesitancy and refusals/concerns about potential side effects remain prominent Updated CDC protocols decreasing isolation time/mask requirement regardless of vaccine status decreased vaccine importance with members	CM direct member outreach to SHCN population engaged in CM leveraged established CM relationship with Members Partnered with Walmart for access to scheduling app to support member appointments Weekly IVR calls provided vaccine education, vaccine education, and appointment scheduling assistance Engaged community partners to enhance appointment assistance Automated Corporate outreach campaign querying vaccination status and share with Providers Promote member incentives for vaccine completion (LHCC incentive as well as LDH campaigns, i.e., Shot for 100, Shot per 100,000) Incorporated COVID vaccine assessment and appointment assistance into each CM outreach Participation in community events to engage members conveniently and/or in trusted spaces	Continue culturally sensitive CM outreach w/ appointment scheduling assistance and promotion of available vaccination sites/events (leveraging language services, recognizing implicit bias, motional interviewing techniques) Continue to update communications to align with LDH campaigns as they evolve (i.e., Shot per 100,000 and booster expansion) Continue to identify vaccine status/outcomes on members newly engaged in case management Field engagement with members allowing a more personal discussion surrounding the benefits of vaccine completion and further education around hesitancy Continue to train CM staff on importance of COVID vaccine assessment and provide education resources to share with members who remain hesitant
The large volume of eligible enrollees poses a challenge to enrollee reach via CM outreach alone	Significant volume of eligible enrollees poses a challenge to enrollee reach via CM outreach alone Decreased need to vaccine appointment scheduling	Concurrent Corporate outreach supplemented Health Plan efforts (text, email outreach) Partnered with Walmart for access to scheduling app to	Continue direct and automated outreach efforts with appointment scheduling and transportation coordination assistance

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
	due to vaccine accessibility and walk-in options noted	support member appointments Initial static outreach messaging transitioned to roll back call campaign expanding automated outreach, linking members to representatives for direct message delivery and assistance with scheduling; staff were realigned to cover call volumes Updated Member Services scripting and care gap flags to support and promote vaccination with each Member contact Enhance appointment assistance by engaging community partners and expanding use of available appointment scheduling apps Automated Corporate outreach campaign querying vaccination status and share with Providers Implemented new Member incentive for vaccine completion Incorporated COVID vaccine assessment and appointment assistance into each member outreach Participation in community events to engage members conveniently and/or in trusted spaces Provider partnership with co-branded mailers emphasized the trusted provider relationship for vaccine completion Provider partnership expanded to provide promotion support of in office vaccine days/events on a regular on-going basis and support through promotion kit	Continue to develop and participate in community events to engage members conveniently and/or in trusted spaces Ongoing outreach by HCCs to include targeted regional outreach campaigns for members overlapped with other HEDIS and PIP outreach Focus outreach efforts on in-person, member-facing opportunities through Community Health Services team

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
Develop and implement COVID-19 vaccination outreach to the pediatric population.	The large volume of eligible enrollees poses a challenge to enrollee reach via CM outreach alone Vaccine hesitancy and refusals/concerns about potential side effects remain prominent Parents/guardian who remain unvaccinated are less willing to vaccinate their children	Leveraged established CM relationship with Members for initial outreach Partnered with Walmart for access to scheduling app to support member appointments Member incentive for vaccine completion initially offered through LHCC and LDH (i.e., Shot per 100,000) Incorporated COVID vaccine assessment and appointment assistance into each CM outreach Participation in community events to engage members conveniently and/or in trusted spaces, especially all back-to-school events Provider partnership with co-branded mailers emphasized the trusted provider relationship for vaccine completion Provider partnership expanded to provide promotion support with in-office vaccine days/events on a regular on-going basis and support through promotion kit; expanded program to pediatric clinics	Continue to incorporate pediatric populations into all member-facing outreach efforts with appointment scheduling and transportation coordination assistance utilizing culturally sensitive motivational interviewing techniques, leveraging language services and recognizing implicit bias; incorporate adult vaccine education/status into discussion when providing pediatric outreach and education on importance of vaccine Continue to expand LHCC Community Vaccination events in continued partnership with Acadian Ambulance and other providers w/ mobile units to promote vaccine delivery/expanded access (i.e., visiting day care centers, Head Start programs; presence at community events) Continue regional outreach to pediatric population overlapped with other HEDIS and PIP measures to regions with the highest unvaccinated pediatric population to minimize duplicate outreaches and member abrasion; expand to subsequent regions systematically
Distribute eligible enrollee lists to PCPs and facilitate referrals as needed	Existing processes support regular Provider communication through Provider Network teams and Secure Provider Portal IT support/project build time to incorporate Member care gap reports and establish distribution	Initial care gap reports targeting providers with largest volume of eligible enrollees were distributed manually pending portal revisions; subsequently migrated to automated distribution via secure provider portal Collaboration with Urgent Care Providers for vaccine promotion, mailer distribution to members with prior visits	Continue to update automated care gap reports monthly to support provider vaccination efforts Include care gap report access and utilization in provider education initiatives Continue to promote LDH member incentives (Shot per 100,000) to support vaccination promotion

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
		Provider partnerships established using co-branded collaterals leveraging trusted provider relationships Provider incentive for vaccine administration established Provider partnerships expanded to include promotional support/tool kits for providers offering in-office vaccine days/events on a regular on-going basis Automated care gap reports were updated to include new pediatric age groups as updated guidelines were approved	
Distribute vaccination site lists to PCPs.	Existing processes support regular Provider communication through Provider Network teams, Secure Provider Portal, and recurrent electronic message distribution Limitations in distribution due to provider opt-in for electronic communications	Provider Services Team delivering vaccination site resources with each Provider contact and addressing any issues and barriers identified Expanded distribution to other Provider emails beyond those enrolled in electronic distributions Vaccination sites are continually updated and emailed out to providers via our weekly Provider newsletter	Continue to distribute updated vaccination sites electronically through secure provider portal, online via LHCC provider resource page, and weekly provider newsletter for most up-to-date listings
Eligible enrollees pending the 2nd dose of COVID vaccine will be outreached with reminder communications to facilitate completion of vaccination series.	Existing Care Management and Corporate outreach initiatives included 2nd dose follow up/scheduling assistance for synergy of outreach efforts, although Corporate outreach data did not allow for extraction of 2nd dose reminder data Limitations surrounding timely submission by vaccine providers led to member abrasion surrounding lack of confirmation of a completed 2nd dose	Member care gap reports distributed to Providers include 2nd dose reminders Automated Corporate member outreach campaigns for 2nd dose reminders enhancing data collection Rollback phone campaign provided opportunity for direct scheduling support Member care gap reports including 2nd dose reminders transitioned to	Continue member outreach for 2nd dose reminders for expanded outreach Continue to include 2nd dose overdue vaccine status in member care gap reports updated monthly Continue to update communications to align with LDH campaigns as they evolve (i.e., Shot per 100,000) to encourage completion of 2nd dose

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
		distribution via secure provider portal Established member mailer with 2nd dose reminder for expanded outreach, piloted 2nd dose reminder text campaign Member incentive for vaccine completion and provider incentive for vaccine administration (including 2nd dose)	
Eligible enrollees in susceptible subpopulation (White) will receive tailored and targeted interventions to address observed disparities in receiving the COVID-19 vaccine.	No specific language barrier with identified disparity group Target population significantly represented within each region across the state	Targeted outreach to region with largest density of White enrollees not yet vaccinated, expanded to additional regions as previous regions completed IVR calls/email/mailers providing vaccine education and appointment scheduling assistance Broader concurrent Corporate outreach supplementing Health Plan efforts (text & email outreach) Member incentive for vaccine completion and provider incentive for vaccine administration (including 2nd dose) Collaboration with Urgent Care Providers for vaccine promotion, mailer distribution to members with prior visits Provider partnerships established using co-branded collaterals, leveraging trusted provider relationships Provider partnership expanded to promotional support for providers who agree to offer in-office vaccine days/events on a regular on-going basis and support through promotion kit.	Continue direct and automated outreach efforts with supports including appointment scheduling and transportation coordination assistance in regions with largest density of White enrollees not yet vaccinated Continue participation in community events to engage members conveniently and/or in trusted spaces Field engagement with White members engaged in CM – opportunities for education regarding the benefits of vaccination and assisting with vaccine appointment scheduling

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
		Participation in community events to engage members conveniently and/or in trusted spaces	
Eligible enrollees with transportation barriers/homebound status will be outreached to assess vaccination status and connection to plan resources to facilitate vaccination access; Provide transportation for members with transportation/ mobility barriers to COVID vaccination sites	Member feedback indicated transportation barriers/ concerns the lowest rationale given for not getting vaccinated Vaccine hesitancy and refusals and concerns about potential side effects remain prominent in this group as well	Targeted phone outreach to members with previous transportation or homebound status identified Collaboration with local providers for home vaccine delivery; use of NEMT for vaccination trips Promote/offer available vaccine transportation with each member outreach Member and provider incentives for vaccinations	Continued promotion of transportation resources for vaccine access; encourage vaccination with each member outreach Continue promotion of LDH vaccine incentives (i.e., Shot per 100,000)
Leverage the trusted relationship between members/providers to decrease vaccine hesitancy and increase vaccine administration	Member feedback indicated a desire to discuss vaccine hesitancy with a trusted provider rather than be advised by health plan staff Vaccine hesitancy and refusals and concerns about potential side effects remain prominent and has been confirmed by this group of providers	Leverage partnership with a target group of trusted providers with large population of members Provider partnership with co-branded mailers emphasized the trusted provider relationship for vaccine completion Provider promotion with select providers targeting members for vaccination through regularly scheduled/hosted vaccine promotion events/observances Initiative offers provider and member incentive for participation Encourage use of care gap report to increase appointment scheduling for vaccine events in provider offices Expanded participation to pediatric providers as pediatric members became vaccine eligible Conduct training and seminars related to COVID vaccines and addressing	Continue to educate and promote provider partnership with pediatric clinics and assist with promotion of vaccine days/clinics held by provider Continue to educate practices on support offered through the provider promotion and provide additional member incentives through the program Continue to educate providers on LDH member incentives available to enhance the LHCC member incentive Continue to seek partnership with large pediatric providers to utilize the trusted relationship between members/providers to increase vaccination rates among pediatric ages Continue to educate and provide updates re: COVID vaccine to providers during Providers meeting i.e., Physician Advisory Council; Practice

Description of Intervention	Lessons Learned	System-Level Changes Made and/or Planned	Next Steps
		parental vaccine hesitancy for children	Management Advisory Council

References

Include a list of references for any sources of information used to formulate the project.

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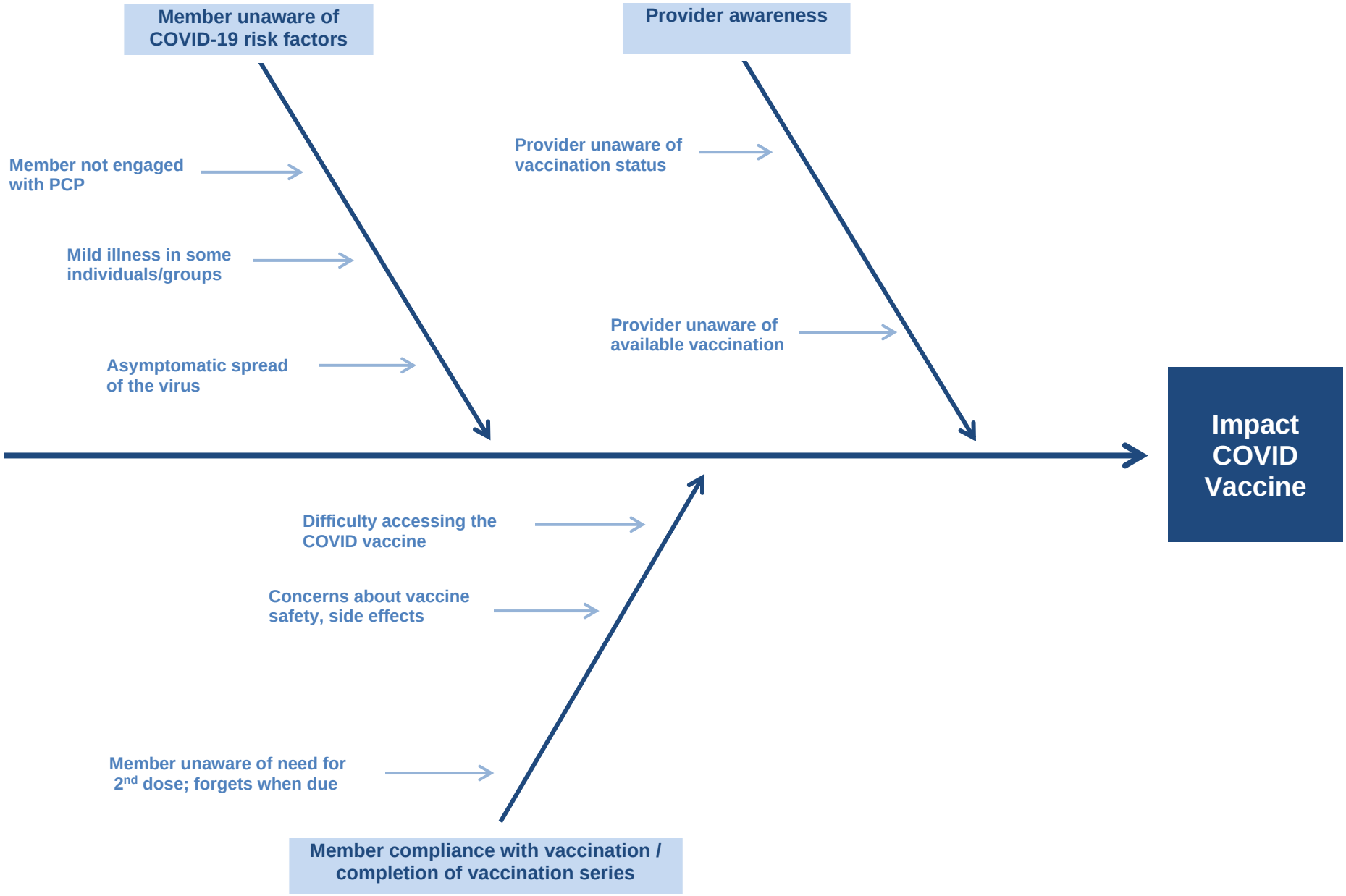
Glossary of PIP Terms

Table 7: PIP Terms

PIP Term	Also Known as…	Purpose	Definition
Aim	• Purpose	To state what the MCO is trying to accomplish by implementing their PIP.	An aim clearly articulates the goal or objective of the work being performed for the PIP. It describes the desired outcome. The Aim answers the questions "How much improvement, to what, for whom, and by when?"
Barrier	• Obstacle • Hurdle • Roadblock	To inform meaningful and specific intervention development addressing enrollees, providers, and MCO staff.	Barriers are obstacles that need to be overcome in order for the MCO to be successful in reaching the PIP Aim or target goals. The root cause (s) of barriers should be identified so that interventions can be developed to overcome these barriers and produce improvement for enrollees/providers/MCOs. A barrier analysis should include analyses of both quantitative (e.g., MCO claims data) and qualitative (such as surveys, access and availability data or focus groups and interviews) data as well as a review of published literature where appropriate to root out the issues preventing implementation of interventions.
Baseline rate	• Starting point	To evaluate the MCO's performance in the year prior to implementation of the PIP.	The baseline rate refers to the rate of performance of a given indicator in the year prior to PIP implementation. The baseline rate must be measured for the period before PIP interventions begin.
Benchmark rate	• Standard • Gauge	To establish a comparison standard against which the MCO can evaluate its own performance.	The benchmark rate refers to a standard that the MCO aims to meet or exceed during the PIP period. For example, this rate can be obtained from the statewide average, or Quality Compass.
Goal	• Target • Aspiration	To establish a desired level of performance.	A goal is a measurable target that is realistic relative to baseline performance, yet ambitious, and that is directly tied to the PIP aim and objectives.
Intervention tracking measure	• Process Measure	To gauge the effectiveness of interventions (on a quarterly or monthly basis).	Intervention tracking measures are monthly or quarterly measures of the success of, or barriers to, each intervention, and are used to show where changes in PIP interventions might be necessary to improve success rates on an ongoing basis.

PIP Term	Also Known as…	Purpose	Definition
Limitation	• Challenges • Constraints • Problems	To reveal challenges faced by the MCO, and the MCO's ability to conduct a valid PIP.	Limitations are challenges encountered by the MCO when conducting the PIP that might impact the validity of results. Examples include difficulty collecting/ analyzing data, or lack of resources / insufficient nurses for chart abstraction.
Performance indicator	• Indicator • Performance Measure (terminology used in HEDIS) • Outcome measure	To measure or gauge health care performance improvement (on a yearly basis).	Performance indicators evaluate the success of a PIP annually. They are a valid and measurable gauge, for example, of improvement in health care status, delivery processes, or access.
Objective	• Intention	To state how the MCO intends to accomplish their aim.	Objectives describe the intervention approaches the MCO plans to implement in order to reach its goal(s).

Appendix A: Fishbone (Cause and Effect) Diagram- OPTIONAL



Appendix B: Priority Matrix- OPTIONAL

Which of the Root Causes Are . . .	Very Important	Less Important
Very Feasible to Address	• Member awareness of vaccine eligibility, availability • Member concerns about vaccine safety, side effects • Prioritization of members for outreach • Transportation barriers including homebound members • Provider access/utilization of LINKS registry for consistent reporting of COVID vaccinations	• Provider awareness of vaccination sites, locations
Less Feasible to Address	• Face to Face engagement of Providers and Members; geographic scope; continued restriction on field visits • Member access to vaccination, i.e., transportation needs, homebound, remote areas • Misinformation being spread in media; conflicting recommendations on vaccine relevance or efficacy	

Appendix C: Strengths, Weaknesses, Opportunities, and Threats (SWOT) Diagram- OPTIONAL

	Positives	**Negatives**
INTERNAL ***under your control***	***build on*** **STRENGTHS** • Leverage LHCC's established marketing/communications programs to disseminate information. • Engage community leaders, advisory council members in vaccination messaging/support.	***minimize*** **WEAKNESSES** • Potential delays / limited ability to customize enterprise platforms timely • Scope of outreach, potential for member abrasion with multiple priority outreach needs.
EXTERNAL ***not under your control, but can impact your work***	***pursue*** **OPPORTUNITIES** • Increase public engagement in community sponsored vaccination events/programs • Vendor capabilities to engage in vaccination outreach, education • Engaging providers in promotion of vaccination benefits, member encouragement (active leadership in efforts)	***protect from*** **THREATS** • Incomplete vaccination information; providers/vaccination sites not providing complete documentation, member identifiers, or limited use of LINKS registry. Lack of claims submissions to aid vaccination tracking, • Political views surrounding COVID-19 leading to vaccine hesitancy; LHCC population skews more towards the west and northern parts of the state where these views are more prevalent. This is also closely aligned with the racial/ethnic

Appendix D: Driver Diagram- OPTIONAL

AIM	PRIMARY DRIVERS	SECONDARY DRIVERS	INTERVENTIONS

Appendix E: Plan-Do-Study-Act Worksheet- OPTIONAL

	Pilot Testing	Measurement #1	Measurement #2
Intervention #1:			
Plan: Document the plan for conducting the intervention.	•	•	•
Do: Document implementation of the intervention.	•	•	•
Study: Document what you learned from the study of your work to this point, including impact on secondary drivers.	•	•	•
Act: Document how you will improve the plan for the subsequent phase of your work based on the study and analysis of the intervention.	•	•	•
Intervention #2:			
Plan: Document the plan for conducting the intervention.	•	•	•
Do: Document implementation of the intervention.	•	•	•
Study: Document what you learned from the study of your work to this point, including impact on secondary drivers.	•	•	•
Act: Document how you will improve the plan for the subsequent phase of your work based on the study and analysis of the intervention.	•	•	•