# Population Needs Assessment

## Inland Empire Health Plan

## 2021

**Responsible Health Education and/or Cultural and Linguistics Staff:**

Name: Jane Wang, MPH, RD

Title: Director, Health Education Department

Email: Wang-J@iehp.org

Name: Priya Batra, MD, MS

Title: Senior Medical Director, Family and Community Health

Email: Batra-P@iehp.org

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## 1. Population Needs Assessment Overview

Inland Empire Health Plan's (IEHP's) Population Needs Assessment (PNA) identifies Member health status and behaviors, Member health education priorities, cultural/linguistics needs, health disparities, and gaps in service related to these issues. IEHP's PNA development process was designed to meaningfully gather and synthesize data from secondary data sources to guide the development of an Action Plan to improve Member health outcomes and experience. The health plan convened an internal PNA workgroup to collaboratively review and interpret secondary data and provide input into key priorities for the 2021 PNA Action Plan. Stakeholders represented health plan areas including Quality Systems, Culture & Linguistics, Health Education, Provider Services, Health Services Research and Evaluation, Care Management/Behavioral Health, and Pharmacy.

Data sources used in developing IEHP's 2021 PNA were the Department of Health Care Services (DHCS) Disparities Data, CAHPS® responses, health plan claims/encounter data, and Healthcare Effectiveness Data and Information Set (HEDIS) results. Secondary data analyses were performed (descriptive analyses with stratification applied to identify disparities). Findings from these data sources were synthesized to develop the 2021 PNA report and Action Plan.

Based on IEHP claims data, hypertension, diabetes, and asthma were noted to be common chronic conditions among Members. As in 2020, opportunities for improvement in depression screening were again identified among both child and adult IEHP Members. With respect to Member experience as assessed by CAHPS®, gaps were identified in communication between Members and Providers, as well as in Provider-delivered counseling regarding tobacco cessation.

Disparities in internal HEDIS results and DHCS Disparities Data were identified with respect to Member control of asthma, hypertension, and pediatric developmental screening completion. Attention to these identified disparities is reflected in health plan activities described in the 2021 PNA Action Plan. Notably, several opportunities identified in the 2020 PNA Action plan were carried over to 2021. The COVID-19 public health emergency delayed implementation of select 2020 PNA Action Plan initiatives; IEHP plans to launch some of these in 2021 as they are still relevant to Member health needs.

### Data Sources

IEHP's 2021 PNA involved the collection and descriptive analyses of several secondary data sources.

2. Secondary Data Sources: The following sources of secondary data were included and analyzed to develop IEHP's 2021 PNA report and action plan. IEHP attempted to use the most up-to-date version of each secondary data set, recognizing that this might result in variation in data reporting periods.
    a. Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Data: IEHP's **2020 CAHPS® data** were analyzed for the 2021 PNA. CAHPS® responses were fielded via telephone and mail (mixed methods) between February and May of 2020 from a random sample of 1,823 IEHP Members who were 18 years of age or older as of December 31, 2019 and continuously enrolled in IEHP the six months prior. Out of the 1,823 cases, 14 were ineligible and removed from the denominator. A total of 250 completed surveys were valid with 233 completed by mail and 17 completed by phone (total response rate of 13.8%). It is important to qualify the 2020 CAHPS® findings in the context of this response rate; the response rate in 2019 was 20%. CAHPS® responses

provided insight into Member experience with access to care, communication with Providers, customer service, and coordination of care.

a. **Methodology – CAHPS®:** A descriptive analysis of CAHPS data was performed.

b. Department of Health Care Services (DHCS) Disparities Data: DHCS uses the Disparities Data to improve the health of all Californians, enhance quality including patient experience in all DHCS programs, and reduce DHCS per capita health care program costs. DHCS contracted with Health Services Advisory Group (HSAG) to conduct a health disparities study. The included DHCS Disparities Data was from **reporting year 2020 (measurement year 2019)**.
    a. **Methodology – DHCS Disparities Data:** Descriptive analyses of IEHP's findings within DHCS Disparities Data were reviewed and interpreted.

c. IEHP Healthcare Effectiveness Data and Information Set (HEDIS) Data: HEDIS compliance rates are calculated and reported using Member-level clinical information that is aggregated at the health plan level. The Member-level data consist of denominator counts of Members qualifying for any specific HEDIS measure according to the specifications of the measure and numerator counts of Members who qualified for the same specific measure and who received the screening or level of care required by the measure for the measurement year (**in this case, calendar year 2019/reporting year 2020**). These data are then stratified into categories determined by the underlying Member demographics (e.g., age, sex, race/ethnicity, preferred language, and health plan service region) to calculate HEDIS compliance rates by Member demographics and identify disparities in compliance rates.
    a. **Methodology – IEHP HEDIS Data:** Descriptive analyses of IEHP's findings with HEDIS data were performed (with stratification to identify disparities, as described above.

d. IEHP Claims and Encounter Data: Claims and encounter data for the entire Member population were obtained from IEHP's internal medical and administrative databases. The data in this report represent claims and encounter data received by IEHP from both capitated and fee-for-service Providers between January 1st and December 31st, 2020 (**calendar year 2020**).
    a. **Methodology –** Descriptive analyses of IEHP's findings with IEHP claims and encounter data were performed.

3. Key Findings:

2021 PNA findings are described below by domain; relevant data from the various previously described data sources are referenced to support key results.

a. IEHP Membership/Group Profile: Table 1 describes – at a high level – IEHP's current Membership by business line. Sources for this section include **IEHP Claims and Encounter Data (calendar year 2020)**.

**Table 1: IEHP Membership by Business Line**

| SPD Members | Frequency | Percent |
|---|---|---|
| Medi-Cal | 72,543 | 5.3% |
| Medicare Fee-for-Service | 99 | 0.0% |
| **Total SPD Members** | **72,642** | **5.3%** |

| Non-SPD Members | Frequency | Percent |
|---|---|---|
| Medi-Cal | 1,262,831 | 91.5% |
| Medicare Fee-for-Service | 83,483 | 6.1% |
| Cal MediConnect | 33,393 | 2.4% |
| **Total Membership** | **1,379,707** | **100%** |

1. **Seniors and Persons with Disabilities (SPD) Members:** IEHP has a total of 72,642 Members falling into the SPD category; this group accounts for 5.27% of IEHP's population.
2. **Race and Ethnicity:** Data on IEHP Member-reported race and ethnicity are presented in Table 2. Members selected both a race and an ethnicity group. The majority (55.5%) of the population identifies as being Hispanic.
3. **Age:** 661,206 Members were between the ages of 0-19 years; these "child" Members accounted for 45.5% of all IEHP Members. Most of these Members were between 2-12 years of age.

| **Table 2: Race and Ethnicity** | | |
|---|---|---|
| **Category** | **Frequency** | **Percent** |
| Hispanic | 806,353 | 55.5% |
| White | 252,535 | 17.4% |
| Not Reported | 173,839 | 12.0% |
| Black | 132,195 | 9.1% |
| Asian or Pacific Islander | 64,470 | 4.4% |
| Other Race or Ethnicity | 19,717 | 1.4% |
| American Indian or Alaskan Native | 3,240 | 0.2% |
| **Total Membership** | **1,452,349** | **100.0%** |

b. Language Preference**:** Table 3 displays language preference data for IEHP Members. Most Members reported English as their preferred language; this was followed by Members who preferred Spanish. The five most common preferred languages reported are displayed below; Members could select more than one preferred language.

| **Table 3: Language** | **Frequency** |
|---|---|
| English | 1,677,183 |
| Spanish | 474,653 |
| Vietnamese | 8,026 |
| Arabic | 5,809 |
| Chinese | 4,769 |

c. Health Status and Disease Prevalence: The 2021 PNA used **calendar year 2020 claims and encounter data** to describe health status and disease prevalence among IEHP Members. Table 4 describes common conditions by IEHP population (as indicated by diagnosis codes) identified via descriptive analysis.

a. **Physical Health Conditions:**

1. Due to the COVID-19 pandemic, it is surmised that diagnosis codes describing acute respiratory illness/exposure to communicable diseases appeared within the most frequent diagnoses for Medi-Cal Members (both adults and children) in the 2021 PNA data. This condition did not appear as frequently in data reviewed for the 2020 PNA.
2. Certain chronic conditions were commonly seen across all adult IEHP Members, including special populations: **hypertension** and **diabetes**. These conditions remained persistently frequent from measurement year 2019 to 2020.
3. Additional information on clinical screenings and services related to these conditions are discussed further in subsequent sections reporting on HEDIS data.
4. Among children, **asthma** remained a frequent chronic condition; this also reflects what was seen in 2019.

**Table 4: Disease Prevalence**

| | **Medi-Cal Member Top 10 Diagnoses** | **Frequency** |
|---|---|---|
| **1** | Hypertension | 130,935 |
| **2** | Contact/exposure to viral communicable diseases | 114,987 |
| **3** | Cough | 108,793 |
| **4** | Obesity | 106,872 |
| **5** | Acute upper respiratory infection | 104,449 |
| **6** | Back pain | 93,939 |
| **7** | Hyperlipidemia | 84,059 |
| **8** | Abdominal pain | 74,754 |
| **9** | Type 2 diabetes | 71,151 |
| **10** | Urinary tract infection | 62,133 |
| | **Cal MediConnect Member Top 10 Diagnoses** | **Frequency** |
| **1** | Type 2 diabetes | 27,127 |
| **2** | Hyperlipidemia | 20,029 |
| **3** | Hypertension | 18,669 |
| **4** | Back pain | 8,334 |
| **5** | Gastro-esophageal reflux disease | 5,530 |
| **6** | Vitamin D deficiency | 5,318 |
| **7** | Chronic obstructive pulmonary disease | 4,758 |
| **8** | Shortness of breath | 4,737 |
| **9** | Presbyopia | 4,674 |
| **10** | Hypothyroidism | 4,588 |
| | **SPD Top Diagnoses** | **Frequency** |

| | | |
|---|---|---|
| **1** | Elevated body mass index (BMI) | 32,905 |
| **2** | Hypertension | 20,792 |
| **3** | Disorders of lipidemia | 16,547 |
| **4** | Long term/current drug therapy | 14,779 |
| **5** | Type 2 diabetes | 13,970 |
| **6** | Back pain | 13,445 |
| **7** | Unspecified soft tissue disorders | 12,848 |
| **8** | Joint disorder | 11,846 |
| **9** | Abdominal/pelvic pain | 10,144 |
| **10** | Abnormalities of breathing | 9,911 |
| **Top Diagnoses list for Members aged 2-19 years** | | **Frequency** |
| **1** | Obesity and overweight | 205,084 |
| **2** | Disorders of refraction | 70,337 |
| **3** | Acute upper respiratory infections | 59,450 |
| **4** | Cough | 42,518 |
| **5** | Contact/suspected exposure to communicable diseases | 33,052 |
| **6** | Fever | 32,523 |
| **7** | Allergic rhinitis | 28,577 |
| **8** | Asthma | 27,089 |
| **9** | Abdominal/pelvic pain | 26,765 |
| **10** | Acute pharyngitis | 26,027 |

d. Behavioral Health Conditions: A descriptive analysis of **2020 claims and encounter data** revealed that the three most common behavioral health diagnoses among IEHP Medi-Cal Members were **depression, anxiety**, and **nicotine dependence**. This was in keeping with findings of the 2020 PNA.

e. Housing Status: A descriptive analysis of IEHP claims and encounter data was performed to identify IEHP Members who might be experiencing homelessness or unstable housing. A combination of diagnosis codes for homelessness and Member residential address types known to be associated with unstable housing status were used to identify the 5.9% of Members who may be at risk for or experiencing homelessness (Table 5).

**Table 5: Housing Status (Administrative Data)**

| Unstable Housing Status Indicator | Frequency | Percent |
|---|---|---|
| No | 1,365,982 | 94.1% |
| Yes | 86,367 | 5.9% |
| **Total Membership** | 1,452,349 | 100.0 % |

4. Access to Care (Member Experience):

   Findings regarding Members' experience of care were drawn from **2020 CAHPS® data**. Opportunities for improvement were identified.

   a. 2020 adult CAHPS® responses identified two gaps with respect to Member care experience; these will be areas of focus in the 2021 PNA Action Plan:
      1. IEHP rated in the **10th percentile** with respect to **how well doctors communicate** with Members (both adults and children). Limitations of service access (e.g., restricted care access due to "stay-at-home" orders, telehealth adoption) during the COVID-19 pandemic might have contributed to this finding (notable decrease from 2019 CAHPS®).
      2. IEHP rated in the **10th percentile** with respect to Member **receipt of advice regarding smoking cessation**. This finding had worsened compared to what was captured via CAHPS® in 2019.

5. Gaps and Disparities in Care – DHCS Disparities Data and HEDIS Findings: Data on gaps in preventive screenings and care for chronic conditions were drawn from IEHP's HEDIS data (**calendar year 2019/reporting year 2020**). These data, along with DHCS Disparities Data – **also calendar year 2019** – were used to identify disparities within quality measure performance by factors such as age, race/ethnicity, language, sex, and health plan service region (geography). The PNA Workgroup found it most meaningful to identify HEDIS disparities and opportunities for improvement in those chronic conditions identified as most prevalent using **2020 claims and encounter data.** These HEDIS metrics and their related conditions are described below.

   a. Disparities (e.g., lower performance in certain IEHP sub-populations) in HEDIS compliance were identified in measures related to the use of **asthma control medications**, **developmental screenings for children**, and **control of high blood pressure**. These gaps, and disparities *within* measures are described in Table 6.

**Table 6:** Gaps and Disparities in Care

| Performance Measure | Data Sources | Reporting Year 2020 Performance | Reporting Year 2020 Percentile | Notable Performance Disparities |
|---|---|---|---|---|
| Asthma Medication Ratio (AMR) | HEDIS, DHCS Disparities Data | 57.4% | 10th | Lower performance among residents of San Bernardino Proper health plan service region, as compared to all regions combined |
| Developmental Screening in the First Three Years of Life (DEV) | DHCS Disparities Data | 12.9% | NA | Lower performance among those preferring the English language, as compared to Members preferring other languages |

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|---|---|---|---|---|
| Controlling High Blood Pressure (CBP) | HEDIS | 55.0% | 25th | Lower performance among Members identifying as Black, as compared to Members of other race and ethnic groups |

b. The performance gaps (and disparities noted within measures) that are presented in Table 6 were selected as focus areas for improvement in the 2021 PNA Action Plan.

6. Gap Analysis and Opportunities for Improvement: The PNA data presented above were reviewed and synthesized by IEHP's multidisciplinary PNA Workgroup. In this venue, stakeholders from across the health plan's clinical departments considered interventions and initiatives to address the frequent conditions, care quality gaps, and performance disparities described above.
   a. Culture & Linguistics opportunities for improvement were identified in **doctor-patient communication** (supported by poor CAHPS® performance in this area). Additionally, opportunities to **culturally tailor improvement initiatives** focused on chronic conditions to IEHP Members by increasing presence in underserved communities to provide preventive screening, culturally tailored materials, and referrals to health plan resources.
   b. Health Education needs were identified in developing and refining existing programs to address chronic condition management on the topics of **asthma**, **blood pressure management**, **smoking cessation**, and **diabetes care**. Collaborations with other key departments (e.g., Pharmacy, Provider Services) were pursued to increase impact. Similarly, an opportunity to focus these disease management programs to subpopulations with the greatest need (e.g., those living with asthma in San Bernardino Proper, Black-identifying Members with hypertension) was identified.
   c. Quality Improvement Activities at the network, Provider, and Member levels were identified to address HEDIS performance gaps. For example, IEHP's Quality Systems team seeks to improve performance on depression screening through pay-for-performance (P4P) incentives (network-level), office staff education (Provider-level) and Member incentives (Member-level). Additional Quality Systems activities focused on HEDIS measure performance are described in the 2021 PNA Action Plan.

## 7. 2020 PNA Action Plan (In Review):

In response to its 2020 PNA key findings, IEHP developed last year's **2020 Action Plan**. The following matrix describes IEHP programs that were undertaken in Culture & Linguistics, Health Education, Quality Systems, and other areas during calendar year 2020 in response to the 2020 Action Plan. Outcomes are reviewed, as well as plans to continue, modify, or discontinue these initiatives. Due to the COVID-19 public health emergency (PHE), some intended activities were modified or delayed.

| **2020 PNA Action Plan (In Review)** | | | | | |
|---|---|---|---|---|---|
| **PROBLEM STATEMENT** | | | | | |
| Overweight and Obesity: Despite the high prevalence of overweight and obesity diagnoses among IEHP Members, these Members are not universally screened for these conditions and are not linked to weight loss resources. There is also opportunity for improved identification of at-risk Members, and a better coordination of community and IEHP resources made available to Members (e.g., assistance in accessing free or low-cost nutritious food). | | | | | |
| **Objective Number** | **OBJECTIVE:** | | | **Goal:** | **Final:** / **Met/Not Met** |
| 1 | By June 30, 2021, Increase the percentage of Members 18–74 years of age who had an outpatient visit and whose body mass index (BMI) was documented during the measurement year or the year prior to the measurement year to at least 50th percentile. Once these Members are identified, ensure that they are linked to related health plan and community programs and resources to support achieving a healthy weight. **50th Percentile Goal: 90.3%; Data Sources: claims/encounter data, HEDIS data**<br><br>**Note:** This priority is not carried over for monitoring into the 2021 PNA Action Plan because many of the activities described below have become health plan standard work and will be sustained to continue with the goal of improving the rate year to year. | | | 90.3% | 65.3% (Measurement Year 2020 Preliminary rate) / Not Met |
| **Activities** | **Progress/ Process Metric** | **COVID-19 PHE Impact (if any)** | **Impact/Outcome** | **Description** | |
| **Care Management:** Implement standard work to screen Members for food insecurity and link them to appropriate resources to | Proportion of Team Members trained on screening tool; proportion of | COVID-19 PHE supported rapid expansion of this screening and linkage program to | Training: 91% of Team Members were trained on how to screen for food insecurity | Food insecurity screening and resource linkage/follow-up protocol successfully implemented in IEHP's Care Management department (*see 2021 PNA Appendix*) | |

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|---|---|---|---|---|
| access free or low-cost nutritious food. | eligible Members undergoing screening | meet Member food insecurity needs secondary to the pandemic's economic impacts | Screening completion: 75% of Members were screened for food insecurity | |
| **Community Health/Heath Education:** Offer preventive wellness classes and activities focused on nutrition, physical activity, and behavioral change to maintain a healthy weight. | Member participation in fitness and nutrition online classes; Health Appraisals completed (initial/6-month follow up) | Due to COVID-19 PHE, all classes were transitioned to online offerings (Facebook, WebEx) | 407 Members participated in fitness classes and 93 Members participated in nutrition classes; 416 Health Appraisals completed | Healthy recipe cards shared via IEHP social media to promote fitness and nutrition class participation; Health Appraisals targeted Members with opportunities to improve health behaviors related to fitness and nutrition |
| **Community Health**: Increasing community-based organization (CBO) outreach to increase awareness of weight management resources. | Provided the community with food resources, paired with educational information | Due to COVID-19 PHE, increased efforts were made to address food insecurity and to provide healthy food sources for Members | 1,350 tons of food distributed (includes food parcels distributed directly by IEHP as well as in partnership with local CBOs); value of food resources was $4,347,000 | Partnering with CBOs to provide resources to combat food insecurity in conjunction with education on nutrition |
| **Health Education:** Offer preventive wellness classes to persons with disabilities focused on nutrition, physical activity, and behavioral change to maintain a healthy weight. | Number of class offerings | Due to COVID-19 PHE, classes were transitioned to online platforms (Facebook, WebEx) | Since July 2020, a total of 64 class modules were offered online | Needs of the intended audience are better served with disability-centered content on nutrition and activity |
| **Marketing/Health Education:** Launch social media campaign to raise awareness around healthy lifestyle for child Members. | Social media engagement metrics | NA | Instagram: 8 posts, 230 likes; Facebook: 6 posts, 237 likes; Twitter: 4 posts, 8 likes | Social media campaign to raise awareness around healthy lifestyle for child Members |

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| **Quality Systems:** Monitor and educate Providers on medical record review standards for primary care sites for child and adult Member overweight/obesity screening. | Provider sites receiving training (*count*) | Unable to implement Provider office-based education intervention due to COVID-19 PHE restrictions | NA (*intervention postponed*) | Monitor and educate Providers on medical record review standards for primary care sites for child and adult Member overweight/obesity screening, with emphasis on Providers who have been identified to have deficiencies in this measure (*to be implemented post-COVID-19 PHE restrictions*). |

**PROBLEM STATEMENT**

Disparities in Managing Chronic Conditions: Members may not be able to access culturally tailored resources to help them manage key chronic conditions; control of these conditions is marked by disparities. The ability to understand and gather regional characteristics would aid in providing more culturally tailored approaches and care to Members. Child IEHP Members residing in San Bernardino experience a disproportionate share of acute care use due to uncontrolled asthma. IEHP Members who identify as Hispanic are significantly less likely to have controlled hypertension than their counterparts. IEHP Hispanic-identifying Members who prefer Spanish are significantly less likely to have controlled diabetes than their counterparts who prefer English.

| **Objective Number** | **OBJECTIVE:** | **Goal:** | **Final:** | **Met/Not Met** |
|---|---|---|---|---|
| 2a | By June 30, 2021, Improve the offering of tailored resources for groups marked by disparities in the management of chronic conditions:<br>Asthma and Geographic/Age Disparity: In San Bernardino Proper, among a cohort of IEHP child Members 0-21 years, improve AMR compliance to at least 50th percentile through a health education and multidisciplinary care coordination program. **50th Percentile Goal: 63.6%; Data Source: HEDIS data, DHCS Disparities Data, CAHPS data®**<br><br>**Note:** This priority will carry over into 2021 PNA Action Plan. Program evaluation findings after completion of 2020 Action Plan activities have identified future opportunities to scale the pilot program to increase reach to Members in the San Bernardino Proper Region. | 63.6% | 53.5% (Measurement Year 2020 Preliminary rate) | Not Met |

| **Activities** | **Progress/ Process Metric** | **COVID-19 PHE Impact (if any)** | **Impact/Outcome** | **Description** |
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|---|---|---|---|---|---|---|
| **Community Health/Health Navigators**:<br>Engage/Recruit a cohort of child IEHP Members with asthma and their caregivers in San Bernardino proper to participate in asthma pilot. | Recruit 50 Members into the Asthma Pilot Program | Due to COVID-19 PHE, efforts to engage Members were conducted virtually | Outreached to 322 Members to enroll 50 Members into the Pilot Program (*see 2021 PNA Appendix*) | In a multi-disciplinary Pilot Program (including Health Navigator, Health Educator, Pharmacist, and network Provider partner), enroll a cohort of 50 IEHP child Members in San Bernardino Proper that had a confirmed diagnosis of asthma (*see 2021 PNA Appendix)* | | |
| **Health Education:**<br>Engage a cohort of child IEHP Members with asthma and their caregivers in San Bernardino proper to participate in the asthma education or coaching programs. | Pre/Post Asthma Control (ACT) Test Scores | Due to COVID-19 PHE, 1:1 health education was conducted virtually | Members in Pilot Program improved ACT scores by 8%. | Provide caregivers of child Members with asthma health education to improve self-efficacy related to asthma control (*see 2021 PNA Appendix*) | | |
| **Pharmacy:**<br>Engage a cohort of child IEHP Members with asthma and their caregivers in San Bernardino proper to participate in targeted medication review. | Asthma Medication Ratio (AMR) Pre/Post, and ICS fill(; via Pharmacy claims data) | Due to COVID-19 PHE, Pharmacy consultations were conducted virtually | 64% of Pilot Program Members improved or maintained AMR at the 6-month period.<br><br>At 6 months, 58% of Pilot Program Members adherent to ICS fill (compared to 8% baseline)<br><br>(*see 2021 PNA Appendix*) | Provided caregivers of child Members medication education, conducted Provider outreach as needed (e.g., regarding prescription medication needs) | | |
| **Marketing:**<br>Promote awareness of asthma management with culturally tailored messages. | Develop and publish newsletter content to complement IEHP asthma programs | NA | Spotlight Newsletter:<br>18,998 English; 9,192 Spanish<br>Accessibility Newsletter:<br>93,940 English; 27,982 Spanish<br>Pulse Newsletter:<br>453,045 English; 124,637 Spanish | Promote awareness of asthma management with culturally tailored messages in Member newsletters | | |
| **Objective Number** | **OBJECTIVE:** | | | **Goal:** | **Final:** | **Met/Not Met** |

| | | | |
|---|---|---|---|
| 2b | By June 30, 2021, Improve the offering of tailored resources for groups marked by disparities:<br>Hemoglobin A1c and Hispanic-identifying Members who Prefer Spanish: In IEHP's Member population qualifying for the HEDIS measure of Comprehensive Diabetes Care (CDC) – hemoglobin A1c Control (A1c <8%), reduce the percent difference between the reference group of Members who prefer English and the disparate group of Members who prefer Spanish from 3.4% to 2.4%. **Data Sources: HEDIS data, DHCS Disparities Data**<br><br>**Note:** This priority is not carried over to 2021 PNA Workplan due to goal being met. Other disparity-focused objectives have been identified for 2021. | Close the gap by 1.0% | Closed the gap by 5.3% | Met |

| Activities | Progress/ Process Metric | COVID-19 PHE Impact (if any) | Impact/Outcome | Description |
|---|---|---|---|---|
| **Health Education:**<br>Engage IEHP Members with diabetes who prefer Spanish to participate in a culturally tailored diabetes education program in the Spanish language. | Spanish-language class offerings | Due to COVID-19 PHE, classes were transitioned to virtual platforms (Facebook, WebEx) | 3 WebEx Spanish cohorts (9 sessions each) offered:<br>26 participants<br><br>16 Facebook Live Spanish sessions offered: 1165 live views | Online diabetes management class in the Spanish language consisting of 9 weeks of health education with topics including: diagnosis, disease monitoring, healthy eating, medication, coping, and physical activity |
| **Community Health/Culture & Linguistics:**<br>Provide training to CBOs to address culture/linguistics sensitivity to care specific to IEHP's Member population that prefers Spanish. | CBO visits (count) | Due to COVID-19 PHE, efforts redeployed to provide food distribution to Members in need | NA (*intervention not implemented*) | Community Health representatives will provide local CBOs with Spanish-language educational and promotional materials for distribution |
| **Pharmacy:**<br>Provide culturally tailored medication therapy management outreach to a cohort of diabetic IEHP Members who prefer Spanish to increase recommended statin medication adherence in this population. | Number of accepted interventions by Provider | Due to COVID-19 PHE, intervention was provided virtually | Member outreach: 533 Members successfully reached; recommendation to initiate statin delivered to Providers for 9,384 eligible Members | Intervention included Members of all language preferences |

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|---|---|---|---|---|---|---|
| **Quality Systems:** Continue to offer Member incentive for hemoglobin A1c (diabetes control) monitoring. | Incentives claimed by eligible Members; impact on hemoglobin A1c screening | NA | Final data collection for Member incentive program still in progress | Follow up program evaluation results and continue to offer Member incentive for hemoglobin A1c testing to the eligible population based on results | | |
| **Objective Number** | **OBJECTIVE:** | | | **Goal:** | **Final:** | **Met/Not Met** |
| 2c | By June 30, 2021, Improve the offering of tailored resources for groups marked by disparities:<br>Hypertension and race/ethnicity: In IEHP's Member population qualifying for the HEDIS measure of Controlling High Blood Pressure, reduce the percent difference between the reference White group and the disparate group (Hispanic identifying) from 2.8% to 1.8%. **Data Source: HEDIS data**<br><br>**Note:** This priority will carry over into 2021 PNA Workplan to focus on broader population as well as a newly identified population experiencing disparities in blood pressure control. New data findings show a shift in population of disparity for 2021 reporting year (difficulty achieving blood pressure control among Members who identify as Black). | | | Close the gap by 1.0% | Closed the gap by 6.7% | Met |
| **Activities** | **Progress/ Process Metric** | **COVID-19 PHE Impact (if any)** | **Impact/Outcome** | **Description** | | |
| **Pharmacy:** Launch mail order pharmacy program to increase antihypertensive medication adherence. | Mail order paid claims, 90-day paid claims | NA | Increase in utilization of mail order spending from $21,800 in Quarter 4 2019 to $79,600 in Quarter 4 2020 | Launch mail order pharmacy program to increase medication adherence | | |
| **Community Health/Culture & Linguistics:** Provide training to CBOs to address cultural/linguistic sensitivity to care specific to | Training attendees | Due to COVID-19 PHE, trainings shifted to virtual platform (WebEx) | Total of 679 individuals trained (256 CBO representatives, 93 Providers, 330 internal IEHP Team Members from Member-facing departments) | During the month of October 2020, IEHP produced a bi-weekly training series for CBOs, network Providers, and Team Members on subjects related to culture, linguistics and inclusion (*themes: language/literacy,* | | |

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|---|---|---|---|---|
| Members who identify as Hispanic. | | | | *race/health equity, women and men's health, LGBTQ and youth, seniors & SPD, and spirituality/healing*) |
| **Marketing/Health Education:** Launch culturally tailored texting campaign to promote awareness of hypertension among Members who identify as Hispanic. | Language- and culture-concordant text message content for relevant population | NA | Texting campaign for hypertension and COVID-19 risk:<br>English messages sent: 385,037<br>Link clicks: 2,096<br>Spanish messages sent: 115,736<br>Link clicks: 7,466 | Encourage Members to continue to seek recommended hypertension care during the COVID-19 PHE. |

**PROBLEM STATEMENT**

Screening for Behavioral Health Condition: Most IEHP Members over the age of 12 years are not routinely screened for depression in primary care. This is in the context of data showing that a significant proportion of IEHP Members experience depression and anxiety.

| Objective Number | OBJECTIVE: | Goal: | Final: | Met/Not Met |
|---|---|---|---|---|
| 3 | By June 30, 2021 increase depression screening rates of IEHP Members ages 12 years and above to at least 50th percentile. **50th percentile Goal: 56.0%; Data Sources: HEDIS data, claims/encounter data**<br><br>**Note:** This priority will carry over into 2021 PNA Workplan as the 2020 goal was not met, and in response to the priority of addressing mental health impacted by COVID-19. | 56.0% | 37.8% (Measurement Year 2020 Preliminary data) | Not Met |

| Activities | Progress/ Process Metric | PHE Impact (if any) | Impact/Outcome | Description |
|---|---|---|---|---|
| **Quality Improvement:** Increase proportion of Providers performing depression screening via P4P program. | HEDIS depression screening measure rate | COVID-19 PHE may have contributed to Members electing to delay primary care (*site* | Interim 2020 P4P data reflect an incremental increase in Member compliance with the depression screening measure | Activity to continue in P4P program |

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|---|---|---|---|---|
| | | *of depression screening*) | | |
| **Marketing/Behavioral Health:**<br>Launch social media campaign to increase awareness of depression screening and related health plan resources. | Social media engagement metrics | NA | Facebook post reach: 15,875<br>Twitter reach: 13,470<br>Instagram post reach: 5,194 | Social media campaign to increase depression awareness and promote related health plan resources |

| **PROBLEM STATEMENT** |
|---|
| Member Communications: IEHP Members report not feeling well-informed regarding the coordination of health plan benefits available to them. This could be linked to cultural barriers and knowledge, leading to also medication adherence issues tied to managing chronic conditions. |

| **Objective Number** | **OBJECTIVE:** | **Goal:** | **Final:** | **Met/Not Met** |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| 4 | By June 30, 2021, strategically communicate Member benefits in at least 3 communication campaigns or activities to better inform select Member populations about health plan benefits. **Data Sources: PNA Survey; CAHPS® data**<br><br>**Note:** This priority is not carried over to 2021 PNA Workplan as the goal was met. However, Member communication continues to be a priority across IEHP. | Complete 3 campaigns | 3 campaigns completed | Met |

| Activities | Progress/ Process Metric | PHE Impact (if any) | Impact/Outcome | Description |
|---|---|---|---|---|
| **Marketing/ Health Education:**<br>A. Launch culturally tailored communication campaign to reach and connect adult Members who identify as Hispanic with hypertension to coordinating their related health plan benefits.<br><br>B. Launch culturally tailored communication campaign (text messaging) to reach and connect adult Members who prefer the Spanish with diabetes to coordinating their related health plan benefits.<br><br>C. Launch culturally tailored communication campaign to reach and connect parents of children (0-21 years) with asthma regarding coordinating their related health plan benefits. | Number of mailings (newsletters with relevant content) completed; number of text messages sent | NA | Newsletter mailings:<br>April 2020: 622,300 mailings<br>June 2020: 623,100 mailings<br>October 2020: 723,363 mailings<br>January 2021: 727,284 mailings<br><br>March 2021: 28,817 text messages<br>April 2021: 1,044 text messages<br>May 2021: 639 text messages | A: Member Newsletter content encouraging blood pressure checks and covered services in key populations<br><br>B: Diabetes health plan benefits: text messages regarding diabetes and COVID-19 risk<br><br>C: Asthma education and health plan information were shared via newsletters with culturally tailored messaging based on findings of the asthma pilot program |

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| **Marketing/Quality Improvement/Health Education**:<br>Launch culturally tailored social media campaign to reach and connect teens to coordinating their health plan benefits. | Social media posts and interactions | NA | Instagram: 8 posts, 230 likes<br>Facebook: 6 posts, 237 likes<br>Twitter: 4 posts, 8 likes | Social media content educating teen Members on navigating health plan benefits. |

8. Action Plan Update (2021):

To develop the **2021 PNA Action** Plan, IEHP considered the findings of updated data (described above). Again, the priorities identified included **blood pressure control** (with mitigation of attendant racial/ethnic disparities), **asthma control in children and adults** (with consideration of geographic disparities), **optimization of treatment for Members with diabetes**, **depression screening**, and counseling regarding **tobacco cessation**. It is notable that several of these priorities were carried forward from the 2020 PNA Action plan for continued focus in 2021. This is described in the matrix below. The 2021 Action Plan will drive activities in Culture & Linguistics, Health Education, Quality Systems, and other IEHP health plan areas during calendar year 2021.

It is important to note that **populations of interest with respect to health disparities shifted in the 2021 PNA Action Plan in comparison to those identified in the 2020 PNA**. Between 2020 and 2021, changes were made in how health plan reference groups were defined to identify disparities in performance of quality measures (e.g., disparities in performance were identified in comparison to **overall health plan performance** in a particular measure among the eligible population). This improved standardization of monitoring for performance disparities will allow more accurate trending going forward. This will also support better understanding of the impact of interventions targeted to address these performance gaps.

| **2021 PNA Action Plan** | | | | |
|---|---|---|---|---|
| Priority Population | Problem Statement | Objective | Data Sources | Activities |
| Members with hypertension (additional focus on Members who identify as Black)<br><br>**Disparity Focus** | **A significant proportion of Members with hypertension do not meet blood pressure control goals (CBP HEDIS measure); furthermore, Members who identify as Black are less likely to meet the CBP measure** when compared to IEHP's reference population (Measurement Year 2020 Preliminary Rate for CBP: 54.9%; 50th percentile goal: 61.8%) | By July 1, 2022, in IEHP's Member population qualifying for the HEDIS measure of Controlling High Blood Pressure (CBP), (a) aim for **overall improvement in CBP from 54.9% to 61.8%** and (b) reduce the percent difference (**disparity**) between the IEHP reference group Members who identify as Hispanic to Members who identify as Black from **11.4% to 8.4%**.*<br><br>(**Performance levels used to generate disparity goal: 22.2%* | Claims/encounter data<br>HEDIS Data | **Pharmacy:** Remote patient monitoring pilot (blood pressure)<br>**C&L/Community Health:** Implementation of blood pressure screening and resource linkage intervention in IEHP Community Resource Centers.<br>**Behavioral Health/Care Management:** Launch pilot integrated care management program to manage Members with hypertension in the health plan's Low Desert region<br>**Health Education:** Launch hypertension education program to address health education/cultural & linguistics needs of IEHP Members, with a focus on Members identifying as Black |

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| | | *(HEDIS measurement year 2020 interim rate for Black-identifying group); 24.9% (HEDIS measurement year 2020 interim rate for reference group)* | | **Health Homes Program:** Launch Value Based Payment program with participating Providers (Member population CBP metric performance tied to reimbursement) |
| | | | | **Quality Systems**: Inclusion of CBP measure in P4P program |
| | | | | **Pharmacy:** Comprehensive Medication Management (CMM) program piloting with pharmacy sites to improve CBP measure |
| | | | | **Pharmacy:** Targeted Medication Review (TMR) for Members with hypertension |
| | | | | **Quality/Pharmacy:** DHCS Health Equity Performance Improvement Project - to offer medication therapy management services for hypertension control |
| Members with Asthma in IEHP's San Bernardino Proper region<br><br>**Disparity Focus** | Members residing in IEHP's **San Bernardino Proper** geographic region demonstrate worse performance in asthma control as measured by the Asthma Medication Ratio (AMR) HEDIS metric, in comparison to IEHP's reference rate (*overall performance across regions*) | By July 1, 2022, improve AMR compliance rates among Members in the San Bernardino Proper region to reduce the percent difference between this region and the reference rate, from **7% to 4%.***<br><br>**Performance levels used to generate disparity goal: 53.5% rate SB Proper (HEDIS measurement year 2020 interim data); 57.4% overall rate (HEDIS measurement year 2020 interim data)* | Claims/encounter data<br>HEDIS Data | **Pharmacy/Health Education**: Launch expanded Asthma Program to address asthma needs for both child/adult Members in the San Bernardino Proper region (mitigate disparity) |
| | | | | **Pharmacy:** Comprehensive Medication Management (CMM) program piloting with pharmacy sites to improve AMR measure |
| | | | | **C&L/Community Health:** Community Health Workers will increase culturally responsive referrals to the asthma program |
| | | | | **Quality Systems/Pharmacy:** DHCS AMR project (will involve Provider engagement and Targeted Medication Review – TMR – for Members missing an asthma controller medication prescription; will also recruit outside the San Bernardino Proper region) |
| Cardiovascular risk for people with diabetes | **Members with Diabetes** who are at risk for cardiovascular disease are **not receiving** | By July 1, 2022, among IEHP Members qualifying for the Statin therapy for People with | Claims/encounter data<br>HEDIS Data | **Pharmacy:** Targeted Medication Review (TMR) program to promote statin initiation and adherence for eligible Members with diabetes |

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| | **statin therapy** (Measurement Year 2020 Preliminary Rate: 66.9%; 75th percentile goal: 68.7%) | Diabetes (SPD) HEDIS measure-receiving statin therapy, improve the rate from **66.9% to 68.7%.** | | **Pharmacy:** Provider outreach with education regarding SPD measure compliance among eligible Members |
| | | | | **Pharmacy:** Launching partnership with a network academic medical center to improve SPD measure adherence in a Member population of interest (Members who prefer the Spanish language) |
| Depression screening | Most **IEHP Members over the age of 12 years are not routinely screened for depression** in primary care. (Measurement Year 2020 Preliminary rate: 37.8%) | By July 1, 2022, improve rate of depression screening across all age groups from **37.8% to 47.8%.** | Claims/encounter data<br>P4P data | **Health Education**: Include validated depression screening in Perinatal Health Education Program and refer to Providers as indicated |
| | | | | **C&L/Community Health**: Health Navigators and Community Health Workers will complete Health Appraisal with Member to screen for depression and refer Members accordingly in a culturally responsive manner and will provide cultural resources for other health plan departments as needed |
| | | | | **Quality Systems**: Inclusion of depression screening measure in P4P program |
| | | | | **Health Homes Program:** ensure performance and documentation (via Provider-linked care teams) of depression screening for Health Homes Program Eligible Members within 90 days of enrollment |
| Child IEHP Members (ages 0-3 years; with a focus on Members who prefer English)<br><br>**Disparity Focus** | IEHP Members ages 0-3 years who prefer English are less likely to undergo recommended pediatric **developmental screenings** as compared to the overall eligible population (reference group) (Measurement Year | By July 1, 2022, improve the rate of developmental screening (DHCS DEV measure performance) among IEHP Members ages 0-3 years who prefer English from **12.9% to 18.0%** | DHCS Disparities Data | **Quality Systems:** Provider education campaign focused on accurate coding for pediatric developmental screening |
| | | | | **C&L/Community Health**: Health Navigators & Community Health Workers will complete Health Appraisal with the Parents/Guardians of Members ages 0-3 years and refer Members to developmental screening and Health Education program |

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| | 2019 DHCS Disparity Data Rate 12.9%) | | | **Health Education**: Continue "Circle Time" program promoting developmental screening to child Members ages 0-5 years and their caregivers; launch partnership with regional "Help Me Grow" initiative to expand Provider participation in developmental screening/resource linkage |
| | | | | **Quality Systems:** Inclusion of pediatric developmental screening measure in P4P program |
| Adolescent and adult IEHP Members identified as using tobacco/nicotine | In the 2020 CAHPS® survey, IEHP scored at 71.7%, or 25th percentile, with respect to receipt of Provider advice regarding quitting the use of tobacco (CAHPS® Measurement Year 2020 rate 71.7%, or 25th percentile) | By July 1, 2022, launch a coordinated pilot program to improve the rate at which Providers advise Members on smoking or tobacco cessation to at least 80%. | CAHPS® data | **Pharmacy:** Launch Pharmacy student internship program at IEHP to provide smoking/tobacco cessation to a cohort of eligible Members |
| | | | | **Health Education/Culture & Linguistics:** Develop a smoking/tobacco cessation individual coaching program to support Members in setback recovery, motivational interviewing, and goal setting to a cohort of eligible Members |
| | | | | **Health Education:** Develop community partnerships with local and state level entities to provide cessation resources for Members identified as smokers/tobacco users (e.g., CA Quits, Smokers Helpline, and Tobacco Coalition) |
| | | | | **Quality Systems:** Inclusion of CAHPS® tobacco cessation counseling measure in P4P program |
| | | | | **Provider Services:** Promote Provider Portal and educational materials/resources to Provider offices to encourage cessation communication with Members |

## 9. Stakeholder Engagement

IEHP engaged community stakeholders throughout the PNA process. IEHP sought feedback from Members in IEHP Community Advisory Committees (the Public Policy Participation Committee, or PPPC). In this venue, on 6/16/21, IEHP presented the 2021 PNA Key Findings and Action Plan Update to solicit feedback about 2021 PNA priorities' appropriateness and clarity. When presented the priorities for the PNA this year, Member feedback from this venue supported the following validation and feedback:

1. The PNA focus and priorities are accurate and "on the right track;"
2. The health issues shared are relatable to the community;
3. The PPPC supported the 2021 PNA Action Plan's balancing of objectives between preventive care and chronic disease management; and
4. With respect to the objective focused on depression screening, Members highlighted the importance of addressing cultural barriers/stigma with regards to mental health.

The 2021 PNA also involved dissemination of Key Findings and the 2021 Action Plan Update to external partners (e.g., departments of public health, health care delivery systems, CBOs). Findings were shared via individual meetings with stakeholders, committee presentations, and via joint operations meetings. Engaged key stakeholders uniformly expressed a desire to develop future ongoing collaboration with IEHP with the emphasis of reducing duplication of work and focusing on key priorities to build collective impact.

The summary of findings and final report will be disseminated to IEHP Members, IEHP Providers, and key community and public agency partners. Findings will be shared via the Provider Portal and (in-person and/or virtual) presentations. Highlights will be communicated and published via the Member Newsletter. Additionally, the 2021 PNA Action Plan will be shared in health plan quality reports and integrated into IEHP's strategic plan.

# Appendix

2020 Food Insecurity PROGRAM EVALUATION RESULTS

## A Food Insecurity Screening & Resource Linkage Program

Executive Summary

By: Anna L. Edwards

The Food Insecurity Screening and Resource Linkage Program was designed after completing an in-depth population assessment guided by the PRECEDE-PROCEED Model (PPM) planning framework and aligned with the Minnesota Intervention Wheel's conceptual framework. The focus population was high-risk members of a public, managed care health insurance plan (Inland Empire Health Plan [IEHP]) living in the Low Desert region of the Inland Empire in southern California. IEHP members are Medicaid and/or Medicare beneficiaries who are at greater risk for adverse health outcomes and social determinant of health disparities. High-risk member characteristics included poverty, disability, and an aging population. The population assessment, which included quantitative and qualitative data synthesis, revealed several population risks and diagnoses. The diagnoses were validated with key stakeholders within and outside the organization and prioritized according to evaluation criteria. The highest population risk was food insecurity. The results of the assessment informed the program plan development. The program goal was to reduce food insecurity in the focus population by 60%. Key process objectives included selecting a food insecurity screening tool (Hunger Vital Sign ™), developing training materials, standard work, decision-support algorithm and a resource grid for the IEHP care management staff who interact with the focus population. A monitoring and oversight report was designed to collect and analyze the data throughout the implementation period (June 1, 2020 - October 15, 2020). Outcome objectives to support the program goal included training, staff completing the food insecurity screening and documenting a follow-up call with members who screened positive to determine if the food resource was obtained. The COVID-19 pandemic increased the food insecurity prevalence. Senior leadership responded to this need and requested that the program be expanded beyond the focus population to all IEHP members that the care management staff interacted with. The program was expanded, and 160/173 staff were trained between June 1, 2020 - July 1, 2020. Program data were analyzed and determined that although the process objectives were met, only two out of three outcome objectives were met. The program goal was not met. During feedback sessions with supervisory leadership, valuable information was learned to inform process improvements for the program and potentially contribute to future studies and program development. The program sustainability plan has been approved and supported by IEHP leadership.

## A Food Insecurity Screening and Intervention Program for High-Risk Members of Inland Empire Health Plan

Food Insecurity (FI) is a growing concern across the United States, particularly in light of the recent COVID-19 pandemic which has negatively impacted the health and economic stability of millions of Americans. The number of Americans qualifying for Medicaid is increasing exponentially due to loss of employment. According to a 2014 report to congress by the Medicaid and CHIP Payment and Access Commission (MACPAC), Medicaid recipients are at higher risk for poor health outcomes, comorbid conditions, poverty, disability, and negative social determinants of health than those with commercial insurance and/or higher income levels (MACPAC, 2014). This information indicates that the larger population of Medicaid recipients is vulnerable to adverse health and socioeconomic disparities, including food insecurity (MACPAC, 2014).

### Problem

A comprehensive population assessment conducted in September of 2019 of IEHP's high-risk members living in the Low Desert region of the Inland Empire revealed that this population was at risk for food insecurity (FI). Assessment data sources and methods included qualitative, quantitative, comparative literature review, and key informant interviews, which provided an appropriate depth and breadth of information about the population. Food insecurity data were analyzed and compared across county, state and national realms to corroborate the extent of the problem (see Appendix A for Food Insecurity Comparative Data).

This problem was supported by self-reported population data from the organization's Health Risk Assessment (HRA), where 29% of respondents completing the HRA reported this as an issue (Health Informatics department, email communication, November 26, 2019). Key informant interviews with IEHP care management staff who directly interact with this population also identified FI as a frequent

problem reported by approximately 50% of the members (personal communication, October 15, 2019). Additional evidence supporting this population problem includes income status qualifying for Medicaid coverage (at or below poverty level) and the limited availability of retail grocery stores in the vast Low Desert geographic area demonstrated through a windshield survey.

After analyzing and synthesizing the data FI was prioritized as the most significant problem for the focus population. This was agreed upon after validating the results with key stakeholders within and external to IEHP. They had a vested interest in understanding the data and diagnoses, as well as prioritizing them according to relevance to the population, organization, and community.

## Purpose

The intent of the FI screening and resource linkage program was to address three vital processes: screening, resource linkage and follow-up, concluding with evaluating the extent to which the program goal is met, i.e., to reduce FI in the high-risk members of Inland Empire Health Plan (IEHP) residing in the Low Desert region of the Inland Empire. The FI screening and resource linkage program included screening all focus population members for food insecurity during the initial assessment/screening process using a validated tool, the Hunger Vital Sign™ (HVS) (Hager et al., 2010).

The care managers serving the focus population were trained on the use of the Hunger Vital Sign™, how to use an algorithm to guide decision-making for linkage to appropriate food resources (see Appendix B, FI Resource Algorithm), and how to link members to a food resource using a developed resource tool (see Appendix C, Food Insecurity Resource Grid by Zip Code). Standard work was developed to train on documenting the problem, goal, and intervention in the medical management system, and most importantly, following up with the member to determine if the food resource was obtained.

The intervention was designed to augment the current assessment tools available to the care management staff serving the target population. The intervention involved a system change at the organizational level by incorporating specific screening questions into the standard assessment process, a group level change through educating the care management staff on the process to screen for FI, and the use of an algorithm for an individualized member-specific intervention (Edwards, 2020). This three-pronged approach is consistent with the Minnesota Intervention Wheel in terms of working across levels of impact (individual, community, system), which was the conceptual framework used to develop the program (Keller, Strohschein, Schaffer & Lia-Hoagberg, 2004).

## Background/Significance

The state of California's proportion of food insecure residents in 2017 was 11%, and the Low Desert region, spanning both Riverside and San Bernardino counties was close to this overall percentage at 9.4% and 10.1% respectively (Feeding America Research, 2017). The population of focus qualifies for and receives Medicaid ("Medi-Cal" in California) and/or dual coverage with Medicare. This indicates a common level of poverty, placing them at greater risk for FI and other social determinant of health disparities. The American Heart Association (AHA) recently published a position statement supporting food as medicine, particularly for the Medicaid population which has significantly higher rates of food insecurity than non-Medicaid populations (AHA, 2019). The focus population's high prevalence of people with disabilities (50%) and significant percentage of seniors (59%) places the population at greater risk for food insecurity due to unemployment and physical, cognitive or sensory limitations (Heflin, Altman & Rodriguez, 2019). Demographic data for the focus population is captured in Appendix D, IHEP Low Desert Member Demographics, October 2019. A windshield survey of the Low Desert region revealed a geographic challenge of long distances (approximately 10 miles) between rural areas and a limited number of full-service grocery stores to serve this vast region and overall population. This presents not only transportation barriers but food quality selection barriers for this population, which

are both identified in the literature as contributing factors to food insecurity (Office of Disease Prevention and Health Promotion, n.d.).

## Evidence in the Literature

A systematic review of food insecurity screening programs in health care settings by De Marchis et al. (2019), evaluated 23 articles for program effectiveness. The programs all used a FI screening instrument, four of which used the Hunger Vital Sign ™. The findings relevant to program effectiveness revealed an overall low quality of studies (17/23) leading to a recommendation for increased scientific rigor in future studies with a focus on quantitative outcomes (De Marchis et al., 2019).

Two Kaiser Permanente relevant studies presented the use of a food insecurity screening tool in a comparable organizational context (Medicaid managed care organization), one of which focused on the higher risk elderly population (Steiner et al., 2018; Stenmark et al., 2018). A food insecurity screening tool was used in both studies, one of which used the Hunger Vital Sign ™ and included a resource referral intervention for positive FI screening results similar to the program described here (Stenmark et al., 2018). A positive outcome in this particular study demonstrated a systems-level change and organizational commitment to policy change in order to improve food insecurity screening and referral to resources for the qualifying membership (Stenmark et al., 2018).

There is evidence in the literature related to FI screening in vulnerable populations such as Medicaid recipients, children and the elderly. This underscores the importance of adopting screening into organizational processes and procedures to ensure all populations are screened universally (Steiner et al., 2018; Stenmark, et al., 2018). However, there is a lack of literature evidence related to the outcomes of FI screening and actual resource attainment (De Marchis et al., 2019). The action of screening for FI, other social determinants of health, or any health-related problem is ineffective if the problem is not addressed, and the outcome evaluated (Cannon, 2016).

## Environmental Context

Inland Empire Health Plan (IEHP) is a public, non-profit, managed care health insurance company serving over 1.3 million members who are Medicaid (Medi-Cal) or dual eligible (Medicare and Medicaid) beneficiaries living in the two counties (Riverside and San Bernardino) which comprise the Inland Empire region in southern California. IEHP's membership accounts for approximately one quarter of the entire population (4 million) residing in the Inland Empire (IEHP, 2020; Inland Empire.US, n.d.). IEHP is committed to improving the health and well-being of its members and the community including addressing the social determinants of health and food insecurity. IEHP works collaboratively with both county Public Health Departments and numerous community-based organizations to provide innovative approaches to care and social support.

IEHP's Care Management department employs clinical and non-clinical staff who make outreach connections with members to assess for physical, behavioral, and social determinant of health needs to connect members to health plan benefits and community resources. There is a regional care management team, supporting members living in the Low Desert region, who were key informants and stakeholders during the assessment, prioritization process, and plan for program implementation.

Salient features of the organization and focus population include IEHPs commitment to serving its members and community through community-based partner support, education and resource linkage at three IEHP Community Resource Centers. IEHP values innovation, including addressing social determinants of health. For those IEHP members experiencing poverty, the experience transcends health, well-being, and stability. This is deserving of an intervention to improve access to life essentials, especially food.

## Project Objectives

Outcome, process and impact objectives were developed to define the steps needed to meet the program goal (to reduce FI in the high-risk members of IEHP residing in the Low Desert region of the Inland Empire) that are measurable, specific, culturally sensitive and relevant (Edwards, 2020). A high bar was set for all three objectives (75%) due to a high level of confidence in the Low Desert care management team (n=9) to attend the training and follow the standard work. Three outcome objectives that support the program goal are detailed in Appendix E and presented below:

1) 75% of IEHP care management staff who interact with high-risk IEHP members living in the Low Desert region will attend the training on the FI screening tool and criteria algorithm for resource linkage by May 15, 2020, measured by training attendance records.
2) 75% of members being assessed by the trained IEHP care management staff will be screened for FI during initial assessment, measured by the number of members with a documented FI screening in the medical management system by August 15, 2020.
3) 75% of members referred to a food resource will have a documented follow-up from the care management staff in the care plan within two weeks of the referral, measured by the documented follow-up in the medical management system by August 15, 2020.

Process objectives were developed to define the steps needed to meet the outcome objectives and program goal as demonstrated below and in Appendix E. The six short-term process objectives deemed essential to achieve the outcome objectives are listed as follows:

1) Select a validated FI screening tool to be used by care management staff who interact with high-risk members living in the Low Desert region by February 2, 2020.
2) Add the Hunger Vital Sign™ screening tool to medical management system by May 1, 2020.

3) Develop an algorithm for eligibility for FI resources to be used by care management staff who interact with high-risk members living in the Low Desert region by April 1, 2020.
4) Develop a staff training module on using the FI screening tool during every initial assessment for high-risk members living in the Low Desert region by April 15, 2020.
5) Develop documentation example template for care management staff interacting with high-risk members with FI as an identified problem in the care plan section and timeframe for follow-up by April 15, 2020.
6) Develop a weekly monitoring report that captures the focus population, completed FI screening, documented care plan problem, timeframe follow-up, and intervention completion date by May 1, 2020.

One impact objective is focused on a behavior change for the care management staff, to incorporate FI screening into their assessment process during each initial member contact. The measurable impact objective was dependent on achieving the training outcome objective as stated below:

Upon completion of the FI screening and resource linkage training the care management staff will screen all members for FI during each initial contact.

The most important impact objective is aligned with the program goal, to reduce FI in the focus population. Measurable impact objectives are as follows:

Members who screened positive for FI are linked to a food resource, confirmed through a follow-up contact with the care management staff.

## Frameworks

The Food Insecurity Screening Program proposal was designed after completing an in-depth population assessment guided by the PRECEDE-PROCEED Model (PPM) planning framework.

Assessment data sources and methods included qualitative, quantitative, comparative literature review, and key informant interviews, providing an appropriate depth and breadth of information about the population. The Minnesota Intervention Wheel was selected as an appropriate conceptual framework to guide the development of the food insecurity program. The Minnesota Intervention Wheel's foundational constructs of systems, community and individual-focused change align with the intervention's anticipated impact (Keller, Strohschein, Schaffer & Lia-Hoagberg, 2004). First developed by the Minnesota Department of Public Health, Nursing Division, this model has been applied to numerous programs and interventions through specific actions or activities that promote system, community and/or individual well-being (Keller, et al., 2004).

The PRECEDE-PROCEED model (PPM) was used to guide the evaluation of the program. The PROCEED portion of the model (phases five through eight) addresses the implementation and evaluation phases (Green & Kreuter, 2005), detailed in Appendix F.

## Methods

The program design was guided by the PRECEDE-PROCEED model and included a detailed implementation timeline (see Appendix G for original implementation timeline). The implementation included a detailed program budget to account for personnel, materials and a training kick-off lunch (see Appendix H for original program budget).

The COVID-19 pandemic heightened the food insecurity problem to a level of urgency, prompting IEHP to develop a multi-pronged approach to help our members. This created an opportunity for three significant changes to the implementation plan. The most note-worthy was the request from IEHP's Senior Director of Integrated Care to expand the intervention's scope to the entire population receiving care management services. This meant a change in the number of potential IEHP members (n= 596,757) and their demographics (Appendix I., IEHP Total Population Demographics), and

an increase in the number of staff to be trained (from nine staff to potentially 173). The second change to the implementation plan was adapting the training materials and milieu from an in-person training to a virtual venue.

Training for the care management department staff was divided into six sessions, accommodating leadership requests and business continuity, commencing on June 1, 2020 and concluding on July 1, 2020. All training materials were electronically distributed to participants on the day of the training and placed in a departmental folder for accessibility to all care management staff. The training included an open-ended question and answer opportunity throughout the sessions and the trainer (this author) encouraged contact at any time during the program roll-out. Weekly check-ins with the staff were completed during their team huddles (brief daily meeting) to remind and encourage staff to complete the screening for all members they contact and to answer scenario-specific questions.

The program design included a weekly report to oversee the progress of the intervention and provide an opportunity for course correction if needed. Due to the COVID-19 pandemic, the Healthcare Informatics Department was inundated with new regulatory and internal process report requests which deprioritized and delayed the weekly oversight report from the expected mid-June date to the end of August 2020.

## Procedures for Data Collection & Analysis

The weekly oversight report was designed and validated with a care management Business Analyst and expert reporting staff in the Healthcare Informatics Department (see Appendix K for Weekly Monitoring & Oversight Report Example). Data was extracted from the medical management system and mapped to reporting fields to determine if the care management staff were following the standard work provided during the training (see Appendix L., Food Insecurity Standard Work Document).

## Description of Measures, Instruments & Protection

The Hunger Vital Sign ™ screening tool (Appendix M) is a valid and reliable tool available in the public domain and is noted to have sensitivity (97%) and specificity (83%) to accurately identify food insecurity (Hager et al., 2010). The tool was built into IEHP's medical management system for staff use. The monitoring report was validated by the Healthcare Informatics department and revalidated by the care management Business Analyst as a second level review.

Rush University's Institutional Review Board (IRB) reviewed the program proposal and deemed it as non-human subject research. Data analysis was reviewed and presented in aggregate form, free of member identifiers.

## Results

The original program launch date was delayed from the intended May 15, 2020 to June 1, 2020 to accommodate the widened scope and scheduling of six trainings versus the one training planned. Data collection began on July 15, 2020 and concluded on October 15, 2020 (12 weeks total). Deviations from the intended timeline for process and outcome objectives are captured within Appendix E in red font.

## Training

The first outcome objective related to staff training was exceeded at 92% (n=160/173), demonstrated in Appendix E. The training milieu was changed from one in-person training to six virtual trainings due to the COVID-19 pandemic work from home environment. All trainings were recorded, and a link was provided to the leadership and staff for future review or make-up sessions. The virtual environment presents unique challenges such as technical difficulties, potential for participant

distractions (i.e., home environment, incoming emails/messaging) and limited ability to gauge the audiences' engagement.

## Screening Implementation

The food insecurity screening and resource linkage program implementation were launched on June 1, 2020 with a staggered approach to accommodate multiple care management staff members. The staff was instructed to begin using the standard work and tools immediately post-training. Weekly check-in meetings with the staff began on June 8, 2020 according to the process outcome timeline (see Appendix G) during their team huddle meetings to answer questions and provide a reminder to screen all members for food insecurity and to follow the standard work provided in the training (Appendix J., Standard Work document).

## Oversight & Monitoring

Although the process objective to develop a weekly monitoring and oversight report was met, the actual delivery of the report was delayed from the expected date of mid-July to August 19, 2020 (10 weeks post-implementation) due to multiple competing priorities within the Health Care Informatics unit. The delay impacted the ability to analyze the data and course correct the sub-optimal results (see Appendix K for Monitoring & Oversight Report Example). Meetings with the care management leadership were conducted on September 18 and 23, 2020 to discuss the results and receive feedback regarding barriers and areas of improvement. Several themes were gleaned from the feedback session such as staff confusion, lack of clarity in the standard work wording, timing of training coinciding with major process changes within units, and supervisor misunderstanding of the initiative and details (see Appendix N for Leadership Feedback Details). These variables likely impacted the unmet outcome objective and overall program goal. During a retraining provided on October 21, 2020 a staff member

suggested it would be helpful to have a dashboard for the staff to have visibility of their own performance compared to their peers as a source of motivation for improvement.

The second outcome objective regarding staff screening all members that they contact for food insecurity was not met. The goal was 75% and the result was 30% (n= 4,167/13,784). However, the third outcome object related to members who screened positive for food insecurity and linked to a food resource, with a documented follow-up within two weeks to check the status of the referral, was exceeded at 94% (goal was 75%). Appendix E contains the results of the process and outcome evaluation measures.

## Discussion

The FI screening and resource linkage program was developed according to qualitative and quantitative data, literature evidence and the stakeholder review process. The program included a follow-up process with members who screened positive for FI and linked to a food resource to determine if the member received the food resource. This has been identified as a missing element in the related literature (De Marchis et al., 2019) and presents a potential opportunity to contribute to the growing body of literature in this area.

Program strengths included tremendous support from IEHP executive leadership for the program implementation, in addition to interest from county, state, and federal level entities. The program was responsive to a change in demand stimulated by the COVID-19 pandemic and ensuing economic crisis and it compliments similar internal department and external partner social determinant of health initiatives. Program limitations that likely negatively impacted one program objective and the overall program goal included the timing of the training which conflicted with new unit processes and the shift from an in-office to a work from home environment. Care Management leadership misunderstanding of the standard work and accountability to ensure oversight also had potential

negative impact on the results. Additionally, the medical management system has multiple selection options for documentation which were not clearly addressed in the standard work process. This makes data capture challenging.

Limitations can be viewed as opportunities for improvement which will be incorporated into the sustainability plan. Some of the feedback from the staff and leadership (Appendix N) has already been incorporated into the program as a process improvement. This includes providing a re-training for the care management team with the lowest performance and providing clarifying language in the standard work document. The program has been incorporated in IEHP's Population Needs Assessment (PNA) as an intervention to support the obesity problem identified in the organizational assessment. The Population Needs Assessment is a health plan requirement and results are reported to the state Department of Health Care Services (DHCS) on an annual basis. This inclusion will be helpful to garner continued support for sustainment at the organizational level. Additional sustainment plans include incorporating the training into the new employee onboarding process for care management staff. The data will be monitored over time to assess for relevance of need. However, as previously mentioned, the Medicaid population is particularly vulnerable to the adverse health outcome effects of social determinants of health and therefore likely to demonstrate a continued need to assess for food security long-term.

## Conclusion

After a thorough population assessment, synthesis of the data and literature review, food insecurity was prioritized as a significant problem for the population. Screening for food insecurity was a gap in the care management process, therefore demonstrating a need for the program. Due to the COVID-19 pandemic and the economic impact, the food insecurity problem was amplified, necessitating

an expansion beyond the focus population. All process objectives were completed within a modified timeframe and two out of three outcome objectives were accomplished.

Although the overall program goal was not achieved, feedback gathered from internal stakeholders provided an understanding of barriers and ways to improve the program. This is part of the continuous process improvement cycle. This program will be continued into the foreseeable future and continuously monitored for quality improvement due to the ongoing need to support IEHP members in the food insecurity space. The support and enthusiasm for the continuation of the program from IEHP executive leadership is appreciated. Result dissemination will span from internal stakeholders to county, state and federal interested parties. Dissemination opportunities to date includes presenting the program constructs to the California Department of Health Care Services (DHCS) and the Centers for Medicaid & Medicare Services (CMS) during a monthly call (June 9, 2020), and a formal presentation of the program to a diverse audience attending the Medi-Cal Managed Care Advisory Group of the program on September 3, 2020.

This program has the potential to add to the growing body of literature through publication opportunities, where others can build on the work that was completed. The overarching goal of this program and future work is to positively impact the health, well-being and dignity of vulnerable populations experiencing food insecurity.

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Appendix A. Food Insecurity Problem Comparison Data

Table A. 1.

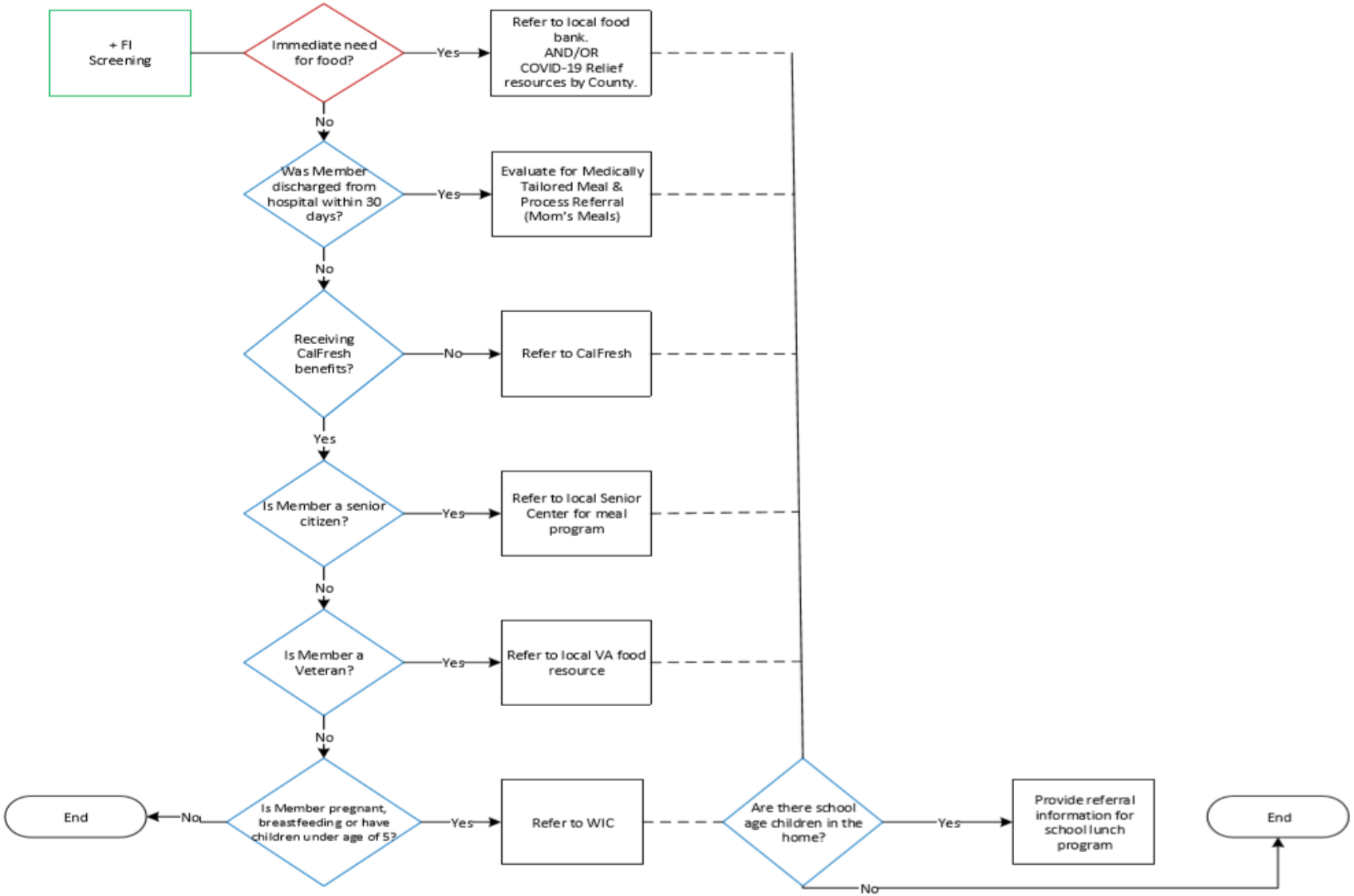
*Food Insecurity Problem Comparison Data: IEHP Focus Population, County, State & National*

| | IEHP High-Risk Members Residing in Low Desert Region | Riverside County | San Bernardino County | California | National |
|---|---|---|---|---|---|
| **Food Insecurity Rate in Percentage of Total Population** | 29% | 9.40% | 10.10% | 11% | 12.50% |

*Note*. National, California state and county data on food insecurity adapted from FeedingAmerica.org data retrieval, 2017 statistics.

IEHP high-risk member data: 29% of members who completed Health Risk Assessment survey indicated food insecurity per Health Informatics department, 11/25/19 data.

Appendix B. Food Insecurity Resource Algorithm



Appendix C. Food Insecurity Resource Grid

Table C. 1.

*Food Insecurity Resource Grid by Zip Code*

| **zip code**: 92317 | | | |
|---|---|---|---|
| **Food Resources** | **Description** | **Riverside County Resources** | **San Bernardino County Resources** |
| **CalFresh** | Money on a debit card to purchase food.Average benefit is about $127 per month per person. | http://dpss.co.riverside.ca.us/self-sufficiency/calfresh-snap/apply | http://wp.sbcounty.gov/tad/programs/calfresh/ |
| **Women, Infants and Children (WIC) Program** | Money to purchase pre-specified foods for pregnant/post-partum women, infants and children under 5. Nutrition education and breastfeeding support also provided. | https://www.rivhero.com/ | http://cms.sbcounty.gov/wic/home.aspx |
| **Summer, Afterschool, and Summer Meals Programs for Children** https://www.cde.ca.gov/ls/nu/sf/sfspinfo.asp | Free or reduced price meals or snacks for students. Eligibility criteria for programs during the school year and summer may vary. | https://riversideca.gov/park_rec/programs-sports/youth/summer-food-program | https://sbcusd.com/district_offices/nutrition_services-old/school_meals_program |
| **Food Banks** | Free food and grocery items for people of all ages. Food must be picked up in person by the Member or a proxy. | **ConnectIE:** Enter Member's zip code to search for all local food banks.<br>https://connectie.org/ | **ConnectIE:** Enter Member's zip code to search for all local food banks.<br>https://connectie.org/ |
| **Congregate Meal Sites** | Meals provided to older adults at specific sites, such as senior centers, churches or housing communities. | **ConnectIE:** Enter Member's zip code to search for all local congregate meal sites.<br>If age 18 or older and meets CBAS criteria, explore this option with the Member.<br>https://connectie.org/ | ConnectIE: Enter Member's zip code to search for all local congregate meal sites.<br>If age 18 or older and meets CBAS criteria, explore this option with the Member.<br>https://connectie.org/ |
| **Home Delivered Meals** | Meals delivered to older adults who can't otherwise prepare or obtain nutritionally adequate meals. | **Meals on Wheels:**<br>https://www.riversidemow.org/<br>**Home Delivered Meal Programs and Others:**<br>https://riverside.networkofcare.org/aging/services/agency.aspx?pid=RIVERSIDECOUNTYOFFICEONAGINGSeniorNutritionProgramCongregateandHomeDeliveredMeals_38_1_0 | **Meals on Wheels and More:**<br>http://hss.sbcounty.gov/daas/resources/nutrition.aspx |
| **Medically-Tailored Meals** | Home-delivered meals tailored to meet the needs of a specific health condition or combination of conditions. | **Mom's Meals:** Discuss this option with IEHP Medical Director for Medi-Cal only Members. If Member has Cal MediConnect, review with Manager for Care Plan Options benefit. | **Mom's Meals:** Discuss this option with IEHP Medical Director for Medi-Cal only Members. If Member has Cal MediConnect, review with Manager for Care Plan Options benefit. |
| **Soup Kitchens/Free Dining Rooms** | Free prepared meals for people of all ages. | **ConnectIE:** Enter Member's zip code to search for all local soup kitchens.<br>https://connectie.org/ | **ConnectIE:** Enter Member's zip code to search for all local soup kitchens.<br>https://connectie.org/ |

*Note:* Adapted from the Nutrition and Obesity Network for Policy, Research & Evaluation.

Appendix D. IHEP Low Desert Member Demographics, October 2019

Table D. 1.

*IEHP Low Desert Member Demographics by ACG Score, October 2019*

**Low Desert Region Risk Stratification October, 2019**

| Risk Stratification | Total | % |
|---|---|---|
| High Risk-ACG | 4,760 | 3% |
| Rising Risk-ACG | 13,584 | 10% |
| Low Risk-ACG | 122,498 | 87% |
| | **140,842** | |

**High Risk by Gender**

| Gender | % | Total |
|---|---|---|
| Female | 57% | 2,702 |
| Male | 43% | 2,058 |
| | | **4,760** |

| Risk Stratification | Age Range | Total | % High Risk |
|---|---|---|---|
| High Risk-ACG | 0-20 | 112 | **3%** |
| High Risk-ACG | 21-30 | 183 | |
| High Risk-ACG | 31-40 | 382 | |
| High Risk-ACG | 41-50 | 656 | |
| High Risk-ACG | 51-60 | 1,489 | |
| High Risk-ACG | 61-70 | 1,324 | |
| High Risk-ACG | 71-80 | 420 | |
| High Risk-ACG | 80+ | 194 | |
| Rising Risk-ACG | 0-20 | 1,870 | |
| Rising Risk-ACG | 21-30 | 1,337 | |
| Rising Risk-ACG | 31-40 | 1,570 | |
| Rising Risk-ACG | 41-50 | 1,871 | |
| Rising Risk-ACG | 51-60 | 3,270 | |
| Rising Risk-ACG | 61-70 | 2,267 | |
| Rising Risk-ACG | 71-80 | 794 | |
| Rising Risk-ACG | 80+ | 605 | |
| Low Risk-ACG | 0-20 | 68,638 | |
| Low Risk-ACG | 21-30 | 16,908 | |
| Low Risk-ACG | 31-40 | 11,871 | |
| Low Risk-ACG | 41-50 | 8,355 | |
| Low Risk-ACG | 51-60 | 8,669 | |
| Low Risk-ACG | 61-70 | 5,174 | |
| Low Risk-ACG | 71-80 | 1,871 | |
| Low Risk-ACG | 80+ | 1,012 | |
| **Total** | | **140,842** | |

**High Risk by Ethnicity**

| Ethnicity | % | Total |
|---|---|---|
| American Indian or Alaskan Native | <1% | 20 |
| Asian Indian | <1% | 8 |
| Asian or Pacific Islander | <1% | 16 |
| Black | 5% | 241 |
| Cambodian | <1% | 1 |
| **Caucasian** | **32%** | **1513** |
| Chinese | <1% | 4 |
| Filipino | 1% | 30 |
| Hawaiian | <1% | 1 |
| **Hispanic** | **51%** | **2411** |
| Japanese | <1% | 2 |
| Korean | <1% | 5 |
| Not Provided | 10% | 461 |
| Other Race or Ethnicity | 1% | 42 |
| Samoan | | 4 |
| Vietnamese | | 1 |
| | | **4,760** |

**High-Risk Seniors & Persons with Disabilities (SPD) & Medicare (MCR) with Disability Code**

| # SPD/MCR | % with Disability Code | Total |
|---|---|---|
| 1,985 | 50% | 3,956 |

*Note*. Demographic table adapted from IEHP's HealthCare Analytics Department (2019)

Appendix E. Evaluation Method Table-Outcome & Process Objectives

| Objective | Design | Sample | Measure | Data Type & Source | Analysis Plan | Results |
|---|---|---|---|---|---|---|
| | **Outcome Objectives** | | | | | |
| 75% of IEHP care management staff who interact with high-risk IEHP members living in the Low Desert region will attend the training on the food insecurity assessment tool and algorithm for resource linkage by May 15, 2020, measured by training attendance records. | Descriptive, Prospective | Convenience sampling: Care management staff at IEHP serving the focus population | Training attendance | Ratio level data (Percentage of attendees)<br><br>Training attendance record | Number of actual attendees<br>---<br>Total number of care management staff who interact with members living in the Low Desert region | **Goal Met: 92%**<br><br>160<br>---<br>173<br><br>of staff were trained measured by attendance records |
| 75% of members being assessed by the trained IEHP care management staff will be screened for FI during initial assessment, measured by the number of members with a documented FI screening in the medical management system by August 15, 2020. | Descriptive, Prospective | Convenience sampling:<br><br>The number of members in the focus population being assessed by the trained care management staff. | Documented FI screenings in the medical management system | Ratio level data<br><br>(Percentage of members with an assessment and a FI screening documented) | Number of members with an assessment and a documented FI screening completed by the trained care management staff<br>---<br>Total number of members assessed by the trained care management staff | **Goal Not Met: 30%**<br><br>4,167<br>---<br>13,781<br><br>of the Members being assessed/contacted received a FI screening |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Outcome Objective 3:** 75% of members referred to a food resource will have a documented follow-up from the care management staff in the care plan within 2 weeks of the referral, measured by the documented follow-up in the medical management system by August 15, 2020. | Descriptive, Prospective | Convenience sampling:<br><br>The number of members in the focus population being assessed by the trained care management staff. | Documented follow up in the care plan present in the medical management system | Ratio level data<br><br>(Percentage of members with a documented follow-up in the care plan) | Number of members with a documented problem of FI in the care plan and referral to a food resource and a documented follow-up with the member within 2 weeks of the referral<br>---<br>Number of members with a documented problem of FI in the care plan and referral to a food resource | **Goal Met: 89%**<br><br>636<br>---<br>718<br><br>had a documented follow-up within 2 weeks (636)<br><br>▪ 1% (9 members) had follow-up within 3 weeks<br><br>▪ 10% (73 members) had no follow |
| | **Process Objectives** | | | | | |
| Select a validated FI screening tool to be used by care management staff who interact with high-risk members living in the Low Desert region by February 2, 2020. | Descriptive | Literature review of FI screening tools available in the public domain for validity, reliability and relevance to the population.<br>Sample size: 6 FI screening tools evaluated | Validated FI tool, brief in format, used in health care delivery systems | Nominal level data: Selected (Yes/No)<br><br>Data: FI tools<br><br>Source: Literature review | Review of tools and setting use. Discuss FI tool options with IEHP organizational stakeholders.<br><br>Selected Hunger Vital Sign™ FI screening tool due to validity, brevity and current use in other IEHP departments. | **Goal Met** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Add Hunger Vital Sign™ screening tool to medical management system by May 1, 2020. | Descriptive, Prospective | n/a | Screening tool embedded in medical management system | Nominal level data: Added (Yes/No)<br><br>Data Source: Hunger Vital Sign™ adapted from<br><br>Hagar et al, 2010.<br><br>This is a (2) question screening tool with Likert scale response set. | Evidence of Hunger Vital Sign™ screening tool present in medical management system by May 1, 2020. | **Goal Met** |
| Develop an algorithm for eligibility for FI resources to be used by care management staff who interact with high-risk members living in the Low Desert region by April 1, 2020. | Descriptive | n/a | Algorithm | Nominal level data: Developed (Yes/No)<br><br>Data source:<br><br>Federal, state and local eligibility requirements for food resources. | Develop algorithm according to age, gender, income criteria according to federal and state requirements. | **Goal Met** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Develop training module on using the FI screening tool during every initial assessment for high-risk members living in the Low Desert region by April 15, 2020. | Descriptive, prospective | n/a | Training material | Nominal level data: Developed (Yes/No)<br><br>Data source: Literature review on FI screening tool. | Completion of training module. | **Goal Met** |
| Develop documentation example template for care management staff interacting with high-risk members with FI as an identified problem in the care plan section and timeframe for follow-up by April 15, 2020. | Descriptive, prospective | n/a | Documentation example template created using medical management system fields | Nominal level data: Documentation example developed (Yes/No)<br><br>Data source:<br><br>Medical management system (care plan module) | Documentation example template complete by 4/15/20. | **Goal Met** |
| Develop a weekly monitoring report that captures focus population, FI screening completed, care plan problem documented, timeframe for follow-up, and intervention completion date by May 1, 2020. | Descriptive, Retrospective | Members in focus population, care management staff who received the FI screening tool training | Medical management system documentation fields (presence or absence of screening, care plan problem | Nominal level data: Report developed (Yes/No)<br><br>Data source: Medical management system fields | Data capture of documentation of:<br><br>-Screening<br><br>-Care plan problem<br><br>-Follow up timeframe | **Goal Met** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | documented and follow up documentation. | | For members of focus population with an assessment. | |

Appendix F. Diagram of the PROCEED Phases of the PPM for FI Screening & Resource Linkage Program

**Implementation**

| | |
|---|---|
| Phase 5 | Develop program content.<br>Develop process and outcome measures.<br>Ensure fiscal, resource (staff) and procedures are attainable.<br>Construct timeline with program details.<br>Obtain approval to implement.<br>Implement program: Training and kick-off |

**Process Evaluation**

| | |
|---|---|
| Phase 6 | Begin data collection through weekly monitoring reports of screening and care planning documentation.<br>Conduct weekly touch base meetings with care managers to answer questions and reinforce program components.<br>Evaluate achievement of process measures. |

**Impact Evaluation**

| | |
|---|---|
| Phase 7 | Evaluate program impact through data collection on the number of members screened for FI, linked to FI resources and have a documented self-report of resource obtained. |

**Outcome Evaluation**

| | |
|---|---|
| Phase 8 | Analyze data to determine if outcome goal was met; to reduce food insecurity in focus population. |

Appendix G. Food Insecurity Screening & Resource Linkage Program Timeline

| **Objectives: Process & Outcome** ***Red font indicates actual vs. planned achievement** | **Program Activity** | **Jan-20** | **Feb-20** | **Mar-20** | **Apr-20** | **May-20** | **Jun-20** | **Jul-20** | **Aug-20** | **Sep-20** | **Oct-20** | **Nov-20** | **Dec-20** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Process Objective 1:** Select a validated FI screening tool to be used by care management staff who interact with high-risk members living in the Low Desert region by February 2, 2020. | Review FI screening tools available in public domain by 1/31/20 | X | | | | | | | | | | | |
| | Discuss tool choices with facilitator by 2/1/20 | | X | | | | | | | | | | |
| | Select validated FI screening tool by 2/2/20 | | X | | | | | | | | | | |
| | Meet with Manager of Health Education & Cultural Linguistics to review tool and gather input on cultural considerations by 2/28/20 | | X | | | | | | | | | | |
| **Process Objective 2:** Add Hunger Vital Sign™ screening tool to medical management system by May 1, 2020. | Meet with IT to discuss adding FI screening questions in medical management system (MMS) by 3/15/20 | | | X | | | | | | | | | |
| | Submit IT request to add FI screening questions to MMS by 3/15/20 | | | X | | | | | | | | | |
| **Process Objective 3:** Develop an algorithm for eligibility for FI resources to be used by care management staff who interact with high-risk members living in the Low Desert region by April 1, 2020. | Research resources for algorithm tool by 4/1/20 | | | | X | | | | | | | | |

| Objectives:<br>Process & Outcome<br>*Red font indicates actual vs. planned achievement | Program Activity | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Process Objective 4:** Develop training module on using the FI screening tool during every initial assessment for high-risk members living in the Low Desert region by April 15, 2020.<br><br>**Process Objective 5:** Develop documentation example template for care management staff interacting with high-risk members with FI as an identified problem in the care plan section and timeframe for follow-up by April 15, 2020. | Develop training module for care managers by 4/15/20 | | | | X | | | | | | | | |
| | Draft documentation example document including screen shots by 4/15/20. | | | | X | | | | | | | | |
| **Outcome Objective 1:** 75% of IEHP care management staff who interact with high-risk IEHP members living in the Low Desert region will attend the training on the FI screening tool and criteria algorithm for resource linkage by May 15, 2020, measured by training attendance records. | Conduct training on FI screening, resource algorithm and documentation by 5/15/20 | | | | | X | X | | | | | | |
| | Schedule training room<br>Not needed due to virtual environment | | | | X | | | | | | | | |
| | Print training materials<br>No longer needed. Electronic materials provided | | | | | X | | | | | | | |

| Objectives:<br>Process & Outcome<br>*Red font indicates actual vs. planned achievement | Program Activity | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Outcome Objective 2:** 75% of members being assessed by the trained IEHP care management staff will be screened for FI during initial assessment, measured by the number of members with a documented FI screening in the medical management system by August 15, 2020. | Conduct weekly touch base meetings with the care managers | | | | | X | X | X | X | X | X | | |
| **Process Objective 6:** Develop a weekly monitoring report request that captures focus population, FI screening completed, care plan problem documented, timeframe for follow-up, and intervention completion date by May 1, 2020. | Research and document reporting fields for data capture by 5/1/20 | | | | | X | | | | | | | |
| | Submit weekly monitoring report request to IT by 5/1/20 | | | | | X | | | | | | | |
| **Outcome Objective 2:** 75% of members being assessed by the trained IEHP care management staff will be screened for FI during initial assessment, measured by the number of members with a documented FI screening in the medical management system by August 15, 2020. | Ongoing data collection & review May-August 2020 | | | | | X | X | X | X | X | X | | |
| | Begin data analysis 9/1/20 | | | | | | | | | X | X | | |
| | Complete data analysis 9/30/20 | | | | | | | | | X | X | | |
| | Write program evaluation & presentation October-November | | | | | | | | | | X | X | |
| | Present program evaluation first week of December 2020 | | | | | | | | | | | | X |

| Objectives:<br>Process & Outcome<br>*Red font indicates actual vs. planned achievement | Program Activity | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 | Dec-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Outcome Objective 3:** 75% of members referred to a food resource will have a documented follow-up from the care management staff in the care plan within 2 weeks of the referral, measured by the documented follow-up in the medical management system by August 15, 2020. | Present results to IEHP stakeholders by 12/15/20 | | | | | | | | | | | | X |

Appendix H. Food Insecurity Screening & Resource Linkage Program Budget

Table H. 1.
*FI Screening Program Budget*

| Program Budget for Food Insecurity Screening & Resource Linkage June-August 2020 | | | | | |
|---|---|---|---|---|---|
| **Line-Item Detail** | **Unit** | **Annual Salary/ Expense** | **Hourly Wage** | **Number of Hours** | **Total Salary/ Expense** |
| **Personnel** | | | | | |
| **RN Care Manager** | 2 FTE | $ 88,351.46 | $ 42.48 | 60 | $ 5,097.20 |
| **LCSW Care Manager** | 2 FTE | $ 88,351.46 | $ 42.48 | 60 | $ 5,097.20 |
| **LVN Care Manager** | 2 FTE | $ 62,212.80 | $ 29.91 | 60 | $ 3,589.20 |
| **Community Health Worker** | 1 FTE | $ 55,154.67 | $ 26.52 | 60 | $ 1,591.00 |
| **Care Coordinator** | 2 FTE | $ 43,562.13 | $ 20.94 | 60 | $ 2,513.20 |
| **Health Care Analytic Staff** | 1 FTE | $ 88,351.46 | $ 42.48 | 10 | $ 424.77 |
| **IT Development Staff** | 1 FTE | $ 78,520.00 | $ 37.75 | 12 | $ 453.00 |
| **Benefit Percentage for personnel** | 30% of annual salary | | n/a | n/a | $ 5,629.67 |
| **Total Expenses** | | | | | **24,395.24** |
| **Non-Personnel** | | | | | |
| **Paper for Job Aids** | 15 | 4.15 | | n/a | 4.15 |
| **Lamination Device** | 1 | 53.75 | | | 53.75 |
| **Lamination of Algorithm Tool** | 15 | 27.91 | | n/a | 27.91 |
| **Lunch for Staff Training** ($15/per person) | 9 | 135 | | n/a | 135 |
| **Total Expenses** | | | | | **220.81** |
| **Grand Total Personnel & Non-Personnel Expenses** | | | | | **24,616.05** |

**Assumptions:**
**1)** Non-personnel costs for paper and lamination supplies obtained through Staples (office supply vendor used by IEHP).
**2)** Staff lunch budget aligns with organizational policy amount.
**3)** Annual salaries by staff designation calculated using an average of the minimum, maximum and midpoint salary range from the organization's Human Resource department.
**4)** Number of hours needed from in-kind personnel calculated using the above annual salary average, divided by 2080 hours and multiplied by estimated hours of work for program development.
**5)** Benefit percentage provided by the Director of Human Resources.
**6)** Organizational productivity expectations for care management staff: Assess/screen 4 new members daily. Estimated time per member for FI screening program is 15 minutes per member. Weekly hours for program estimated at 5 hours, multiplied by 12 weeks for the program.

Appendix I. IEHP Direct Total Membership Quarter 4, 2019


## ACG Membership Count - IEHP Direct Total Population - 2019 Q4

| Risk Stratification | MCR | SPD - MED | Medi-Cal | Total |
|---|---|---|---|---|
| High Risk-ACG | 4,242 | 4,979 | 7,109 | 16,330 |
| Rising Risk-ACG | 7,555 | 10,844 | 50,460 | 68,859 |
| Low Risk-ACG | 7,604 | 20,046 | 483,918 | 511,568 |
| | 19,401 | 35,869 | 541,487 | 596,757 |

| Risk Stratification | Age Range | MCR | SPD - MED | Medi-Cal | Total |
|---|---|---|---|---|---|
| High Risk-ACG | 0-20 | 0 | 217 | 206 | 423 |
| High Risk-ACG | 21-30 | 16 | 299 | 423 | 738 |
| High Risk-ACG | 31-40 | 117 | 382 | 900 | 1,399 |
| High Risk-ACG | 41-50 | 265 | 547 | 1,553 | 2,365 |
| High Risk-ACG | 51-60 | 805 | 1,922 | 2,459 | 5,186 |
| High Risk-ACG | 61-70 | 1,720 | 1,319 | 1,369 | 4,408 |
| High Risk-ACG | 71-80 | 963 | 184 | 105 | 1,252 |
| High Risk-ACG | 80+ | 356 | 109 | 94 | 559 |
| Low Risk-ACG | 0-20 | 0 | 6,670 | 250,002 | 256,672 |
| Low Risk-ACG | 21-30 | 177 | 2,980 | 90,604 | 93,761 |
| Low Risk-ACG | 31-40 | 444 | 2,194 | 63,027 | 65,665 |
| Low Risk-ACG | 41-50 | 459 | 1,428 | 35,592 | 37,479 |
| Low Risk-ACG | 51-60 | 811 | 2,764 | 31,543 | 35,118 |
| Low Risk-ACG | 61-70 | 3,175 | 2,469 | 12,896 | 18,540 |
| Low Risk-ACG | 71-80 | 1,913 | 1,064 | 115 | 3,092 |
| Low Risk-ACG | 80+ | 625 | 477 | 139 | 1,241 |
| Rising Risk-ACG | 0-20 | 0 | 1,497 | 8,040 | 9,537 |
| Rising Risk-ACG | 21-30 | 94 | 993 | 8,398 | 9,485 |
| Rising Risk-ACG | 31-40 | 307 | 942 | 9,368 | 10,617 |
| Rising Risk-ACG | 41-50 | 497 | 1,100 | 8,114 | 9,711 |
| Rising Risk-ACG | 51-60 | 1,120 | 3,151 | 10,492 | 14,763 |
| Rising Risk-ACG | 61-70 | 3,025 | 2,288 | 5,135 | 10,448 |
| Rising Risk-ACG | 71-80 | 1,807 | 550 | 343 | 2,700 |
| Rising Risk-ACG | 80+ | 705 | 323 | 570 | 1,598 |
| | | 19,401 | 35,869 | 541,487 | 596,757 |

Appendix J. IEHP Direct Total Membership Demographic Graphs

Figure J. 1. Total IEHP Direct Population by Line of Business (n=596,757)

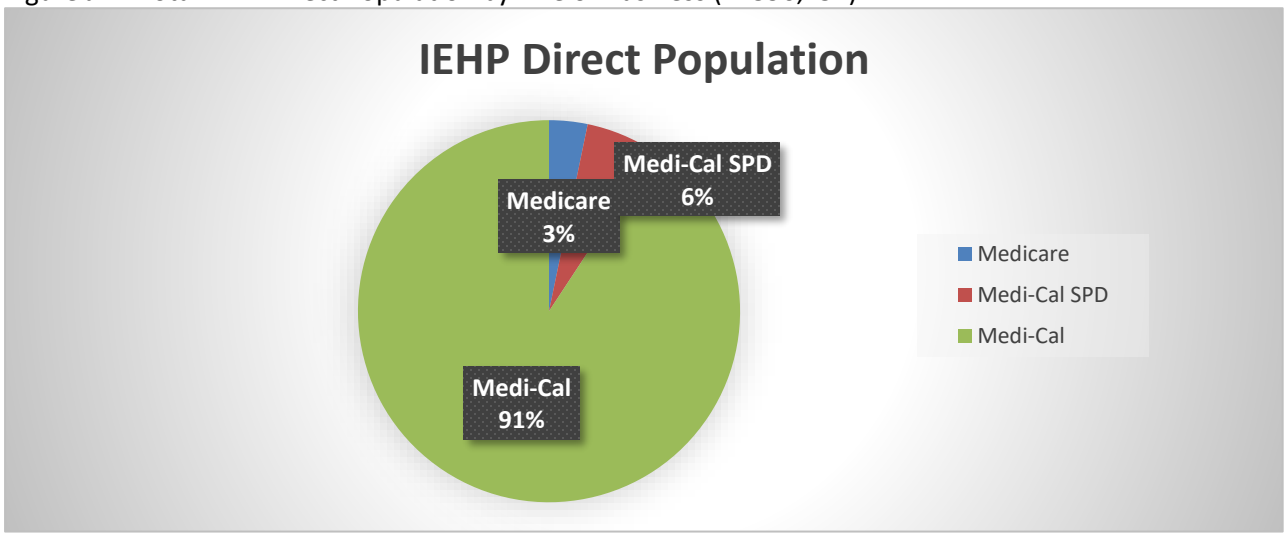



Figure J. 2. Total IEHP Direct Membership by Risk Level (n=596,757)

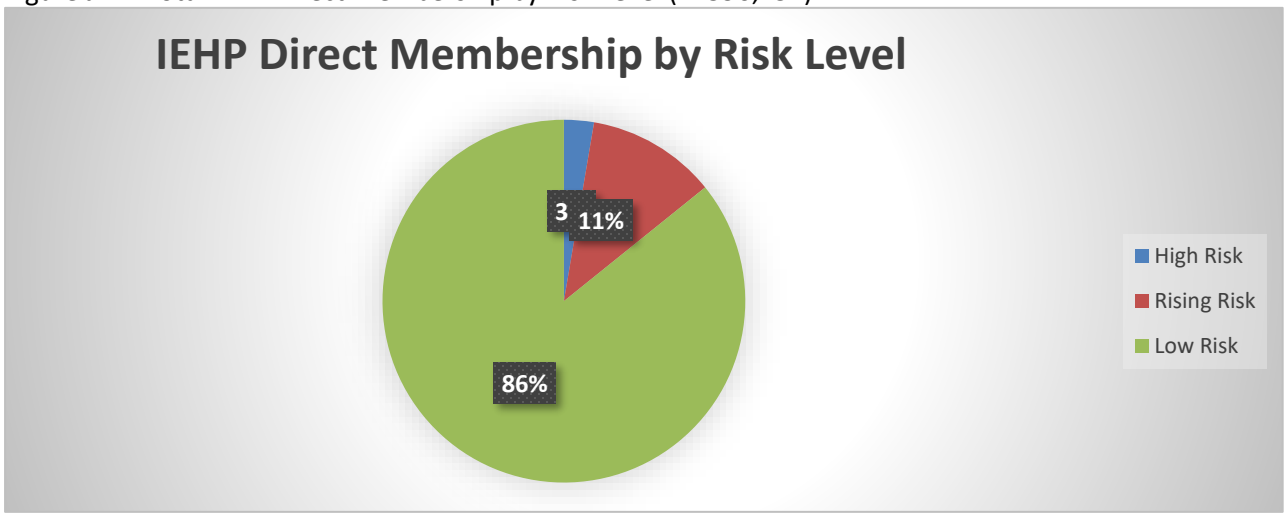
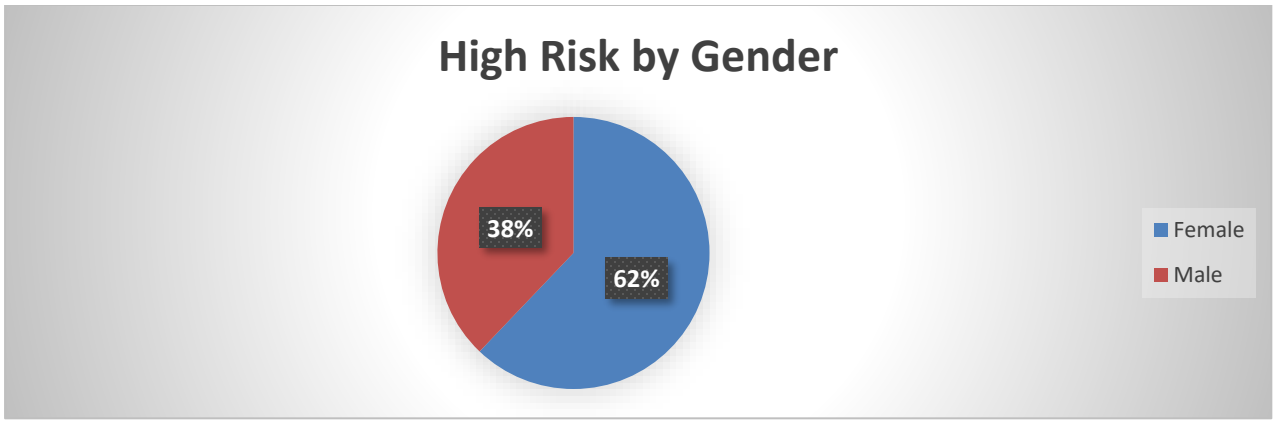
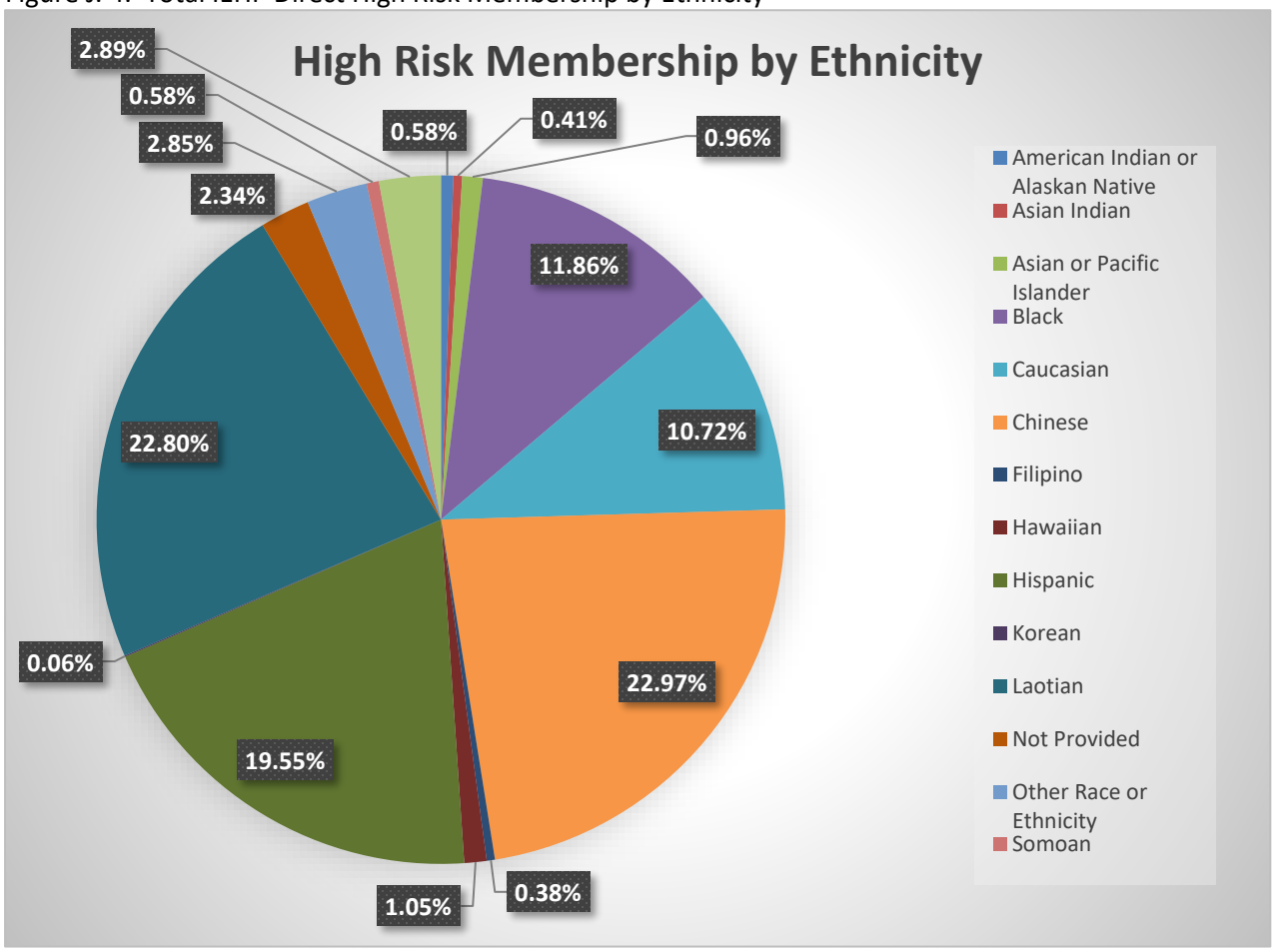



Figure J. 3. Total IEHP Direct High Risk Membership by Gender




Appendix J. IEHP Direct Total Membership Demographic Graphs

Figure J. 4. Total IEHP Direct High Risk Membership by Ethnicity




## BHCM Weekly Food Insecurity Oversight Report

Report Run Date: 10/19/2020

| Food Insecurity Productivity (Medi-Cal & CMC Combined) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Report Period** | | **Documented Contact** | **Food Insecurity Assessment Complete (unique Member)** | **% Members contacted with Food Insecurity Assessment Complete** | **Food Insecure (answers 'Sometimes' or 'Often' to at least one question)** | **Food Insecurity Problem Documentation (unique Member)** | **% Members who answered positively with ICP documentation** |
| Week 1 | 09/20/2020 - 09/26/2020 | 2,056 | 482 | 26.73% | 134 | 139 | 83.58% |
| Week 2 | 09/27/2020 - 10/03/2020 | 2,026 | 527 | 29.84% | 180 | 169 | 82.22% |
| Week 3 | 10/04/2020 - 10/10/2020 | 2,039 | 589 | 32.94% | 176 | 167 | 80.68% |
| Week 4 | 10/11/2020 - 10/17/2020 | 1,977 | 651 | 37.70% | 212 | 197 | 80.19% |

| CMC Food Insecurity Assessment & Intervention |
|---|

| Report Period | | Documented Contact | Food Insecurity Assessment Complete (unique Member) | % Members contacted with Food Insecurity Assessment Complete | Food Insecure (answers 'Sometimes' or 'often' to at least one question) | Food Insecurity Problem Documentation (unique Member) | % Members who answered positively with ICP documentation |
|---|---|---|---|---|---|---|---|
| Week 1 | 09/20/2020 – 09/26/2020 | 1,232 | 417 | 39.12% | 111 | 109 | 87.39% |
| Week 2 | 09/27/2020 – 10/03/2020 | 1,233 | 436 | 40.52% | 134 | 128 | 88.06% |
| Week 3 | 10/04/2020 – 10/10/2020 | 1,209 | 509 | 48.34% | 147 | 139 | 83.67% |
| Week 4 | 10/11/2020 – 10/17/2020 | 1,179 | 564 | 55.73% | 172 | 166 | 86.63% |

| Medi-Cal Food Insecurity Assessment & Intervention | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Report Period** | | **Documented Contact** | **Food Insecurity Assessment Complete (unique Member)** | **% Members contacted with Food Insecurity Assessment Complete** | **Food Insecure (answers 'Sometimes' or 'Often' to at least one question)** | **Food Insecurity Problem Documentation (unique Member)** | **% Members who answered positively with ICP documentation** |
| Week 1 | 09/20/2020 – 09/26/2020 | 821 | 65 | 8.86% | 23 | 30 | 65.22% |
| Week 2 | 09/27/2020 – 10/03/2020 | 784 | 91 | 13.36% | 46 | 41 | 65.22% |
| Week 3 | 10/04/2020 – 10/10/2020 | 824 | 80 | 10.97% | 29 | 28 | 65.52% |
| Week 4 | 10/11/2020 – 10/17/2020 | 795 | 86 | 12.08% | 40 | 31 | 52.50% |

| Closed Food Insecurity Interventions | | |
|---|---|---|
| | Report Period 10/11/2020 – 10/17/2020 | |
| **Problem Status** | **CMC** | **SPD** |
| Closed | 6 | 1 |
| Closed to IPA | 0 | 0 |
| Met | 11 | 0 |
| No Longer a Problem | 5 | 1 |
| Not Met | 0 | 0 |

Legend:

BHCM=Behavioral Health & Care Management

CMC= Cal MediConnect (i.e., name of the dual eligible demonstration program in California)

ICP=Individualized Care Plan

IPA=Independent Provider Association

Appendix L: Food Insecurity Standard Work Document

# Food Insecurity Screening

**Objective:**
To screen all Members for food insecurity and assist with needed resources.

**Out of Scope Teams:**
- Behavioral Health Call Center
- BHCM Dispatch Team

**Frequency:**
On all initial contacts with the Member, Annually and as needed.

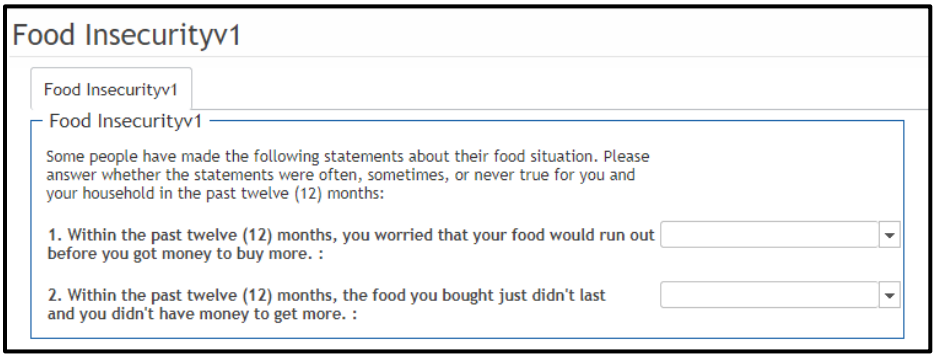
**Intake:**
Member case may be received through one of the below avenues for food insecurity screening:
- Inbound/Outbound Call
- Individualized Care Plan Follow Up
- Program Referral
- Health Risk Assessment review

**Procedure Guide:**

1. Member contact through one of the above intake avenues.

2. Screen Member for food insecurity using the Food Insecurity Assessment in MHK.

    - Add "Food Insecurity v.1" Assessment in MHK & submit.




3. If Food Insecurity problem identified if: Member answers 1 of the 2 questions as "often true" or "sometimes true," provide resources:

    - Using the Food Insecurity Resource Grid, type in the Members' zip code to locate the County the Member lives in and access the resource information to help coordinate the resource.

4. Create Care Plan *(if Member does not have an open Care Management OR Care Coordination Care Plan)* *

    - Program: Care Management

- Program Type: Episodic
- Source: Self/Caregiver

5. Document PGI in Care Plan

    - Problem: Food Insecurity
    - Goal: Document in SMART goal format
    - Intervention: Document the intervention with specific language on what and when it will be completed

    **Please refer to Food Insecurity Training for SMART goal and intervention examples.*

6. Schedule a Callback within the Care Plan Module. *

    - Callback should be no longer than 2 weeks from the day you screened the Member.

    **Please refer to the CM MHK Manual for steps to create a care plan and scheduling of callbacks.*

7. Follow up with Member on call back date.

8. Document outcome in the PGI.

9. Close PGI if food resources have been provided and no further assistance is needed.

## Appendix M. The Hunger Vital Sign ™ Screening Tool

Figure M. 1. The Hunger Vital Sign ™ Screening Tool

**Instructions:**

For each of the statements below think about the last 12 months and respond which one is "never true," "sometimes true" or "often true"

1) We (I) worried whether our food would run out before we (I) got money to buy more

2) The food that we (I) bought just didn't last and we (I) didn't have money to get more

*Note*. Adapted from Hagar et al., 2010.

## Appendix N.

## Leadership Feedback Details

Table N. 1. *Leadership Feedback Details*

| Medicaid Care Management Team Leadership Feedback Meeting on 9/18/20 | Dual Eligible Care Management Team Leadership Feedback Meeting on 9/23/20 |
|---|---|
| Training was conducted during a major process transition period (timing for training not optimal) | Role confusion (nurses who do ongoing care management didn't think they needed to screen for food insecurity) |
| The multiple scenarios in the training document may have caused confusion | Supervisors thought that the staff needed to ask if members were food insecure before the screening tool was used |
| Supervisors weren't knowledgeable on how to use the monitoring and oversight report | Leadership wasn't trained with all the staff to hear the same message |
| Fear of new documentation process | Leadership and staff didn't understand that all members that were contacted needed to be screened |
| Requesting a re-training of the staff | Standard work wording should be edited for clarity (leadership provided the wording that they felt was more clear) |
| Suggest incentivizing the staff with "applause" points (IEHP's internal employee recognition system) for the top food insecurity screeners | |

# QUALITY SYSTEMS

# HEALTH SERVICES RESEARCH AND EVALUATION

2020 Asthma Pilot PROGRAM EVALUATION RESULTS

**2021**

| | |
|---|---|
| **PROGRAM NAME:** | 2020 Asthma Pilot |
| **HSRE EVALUATOR:** | Maria Pugo, DrPH |
| **HSRE ANALYST:** | N/A |
| **DATE:** | 06/08/2021 |
| **PROGRAM OVERVIEW** | |
| **RESPONSIBLE UNIT:** | Health Education, Health Navigator, Pharmacy |
| **BUSINESS LEAD:** | Jane Wang, MPH, RD |
| **PROGRAM NAME:** | 2020 Asthma Pilot |
| **PROGRAM DESCRIPTION:** | Pilot launch based on Process Improvement Asthma Collaboration efforts from March 2020.<br><br>Problem Statement: Members between ages 0 21 years, in the San Bernardino Proper, are not managing asthma well leading to disproportionate unnecessary ED visits, urgent care visits, and hospitalization.<br><br>Aim: Construct a member centric and holistic approach to reduce barriers that negatively impact in asthma management.<br><br>Overall outcome goal: Improve AMR rates. |

| | |
|---|---|
| **PROGRAM GOALS:** | 1. Outreach to SACHS Clinic Members who are not managing their asthma well.<br>2. Deliver excellent asthma-related services.<br>3. Facilitate asthma-specific health education.<br>4. Improve AMR rates. |
| **KEY STAKEHOLDERS**: | IEHP Members – SACHS Clinic Members, Health Education Department, Health Navigator Department, Pharmacy Department |
| **PROGRAM TIMEFRAME:** | July 01, 2020 – April 30, 2021 |
| **PROGRAM PHASE:** | Program Monitoring and Control - Performance Tracking |

| **EVALUATION PURPOSE AND RESEARCH QUESTIONS** | |
|---|---|
| **EVALUATION PURPOSE:** | • To systematically assess program performance through the documentation of program tasks and metrics.<br>• To ensure the project is within scope, on time, and on budget to proceed with minimal risk and perform as intended. |
| **EVALUATION QUESTIONS:** | EQ1: Did the pilot outreach to SACHS Clinic Members who are not managing their asthma well?<br>EQ2: Did the pilot deliver excellent asthma-related services?<br>EQ3: Did the pilot facilitate asthma-specific health education?<br>EQ4: Did the pilot improve AMR rates? |

| **EVALUATION DESIGN AND METHODS** | |
|---|---|
| **Timeframe:** | Program Timeframe:<br>July 01, 2020 – April 30, 2021<br>Evaluation Timeframe:<br>July 01, 2020 – April 30, 2020 |
| **Inclusion Criteria:** | • IEHP Members from initial outreach list (N=611).<br>• Members who enrolled in the pilot (N=50).<br>• Members who completed the follow-up call (Member count varies by team) |
| **Exclusion Criteria:** | • IEHP Members who were not on the initial outreach list<br>• Members who did not enroll in the pilot.<br>• Members who did not complete a follow-up call. |
| **Evaluation Design:** | • Descriptive Analysis |
| **Data Sources:** | • Access Database: S:\Asthma RIE 2020\EXPERIMENTS -09232020<br>• Data Warehouse: Medhok Table<br>• Self-Reported: HE, HN, Pharmacy Teams<br>• Excel Document: Teams → General → Pharmacy Team |
| **Strengths and Limitations:** | <u>Strengths</u><br>• Internal data sources<br>• Engagement of three (3) teams: Health Education, Health Navigator, Pharmacy<br>• Leadership engagement<br>• Ongoing communication between teams<br>• Tools available to complete the pilot<br>• Pilot on schedule with projected start and end dates<br>• Funds available to start and end pilot<br><br><u>Limitations</u> |

| | |
|---|---|
| | • Missing data<br>  ○ 8-week follow up survey (peak flow meter, rescue vs. control medication)<br>  ○ Member satisfaction survey<br>• Limited data<br>  ○ Small Member count with "complete" data - baseline, 8-week follow-up, and 6-month follow-up. Members lost in follow-up activities.<br>  ○ AMR manually calculated<br>• Gaps in workflow<br>  ○ Member hand-off/trigger unclear<br>• Non-standardized data collection<br>  ○ Multiple variables used for same information<br>  ▪ Mbr ID, MemberID, MemberRecordID, etc.<br>  ▪ Initial vs. Baseline<br>  ▪ Follow-up vs. Post<br>  ○ Multiple data sources<br>  ▪ DwProd_Staging<br>  ▪ Access<br>  ▪ Medhok<br>  ▪ Excel<br>  ▪ Self-reported<br>• Unclear goals<br>  ○ "Construct a member-centric and holistic approach to reduce barriers"<br>  ▪ How do we measure "member-centric and holistic"?<br>  ▪ What are the barriers being reduced?<br>• Intervention is directed to parent/caregiver with expected child outcomes.<br>  ○ The pilot is assuming information/education provided to the parent/caregiver translates directly to the child and will result in positive outcomes. |
| **Methodology:** | • 611 Members in original outreach list created by HCI.<br>• Member data extracted from Access database – "Study Group" and "Enrolled" data<br>• Members filtered into three (3) teams – Health Navigator, Health Education, Pharmacy<br>• Pilot activity data extracted from Access (Pre/Post Assessment and ACT Data), Pharmacy excel documents (AMR and PDC), and self-reported data (time spent on Member outreach).<br>• Members with "complete" data were used to determine changes in pre and post intervention.<br>  ○ Pre/Post Assessment: Baseline/initial/pre data and 8-week follow-up data<br>  ○ ACT: Baseline/initial/pre data, 8-week follow-up data, and 6-months post data<br>  ○ AMR: Baseline/initial/pre data and 6-months post data<br>  ○ PDC: Baseline/initial/pre data and 6-monts post data |

| OVERALL EVALUATION FINDINGS | | | | | |
|---|---|---|---|---|---|
| | **GOALS** | **OBJECTIVES** | ***OBJECTIVE MET?** | **EVALUATION QUESTIONS** | **EVALUATION RESULTS** |
| 1. | Outreach to SACHS Clinic Members who are not managing their asthma well. | By October 15, successfully recruit and enroll a cohort of at least 50 IEHP pediatric Members. | Yes | EQ1: Did the pilot outreach to SACHS Clinic Members who are not managing their asthma well? | The pilot successfully recruited 50 IEHP pediatric Members and collected baseline ACT data, however, was not successful at reaching the target specific to ACT data collection at the 8-week and 6-month follow up mark. |
| | | Collect baseline/initial ACT data for all Members enrolled in the program. | Yes | | |
| | | By March 15, 2021, successfully reach at least 75% of Members who participated in the Asthma Pilot in completing the 8-week follow up ACT (standardized asthma-controlled test). | No; 62% successfully reached. | | |
| | | By June 15, 2021, successfully reach at least 75% of Members who participated in the Asthma Pilot in completing the 6-month follow up ACT. | No; 52% successfully reached. | | |
| 2. | Deliver excellent asthma-related services. | Achieve a satisfaction rating of "excellent" in at least 75% of Members who participate in the 8-week follow-up. | Data not available; satisfaction survey not conducted. | EQ2: Did the pilot deliver excellent asthma-related services. | The evaluation did not find data on the delivery of asthma-related services. |
| | | Of those who responded, at the 8-week follow up survey, 100% of Members will state that all their concerns were addressed. | Data not available; satisfaction survey not conducted. | | |
| 3. | Facilitate asthma-specific health education | At the 8-week follow up consultation, at least 50% of participants will correctly identify the purpose of a Peak Flow Meter. | Data not available; data not collected. | EQ3: Did the pilot facilitate asthma-specific health education | The pilot was successful with at least 25% of Members stating they have an Asthma Action Plan at the 8-week follow up, however, was not successful in improving ACT scores by 20%. |
| | | During the 8-week follow up consultation, at least 25% of Members will have an Asthma Action Plan. | Yes | | |
| | | During the 8-week follow up consultation, at least 50% of participants will be able to identify | Data not available; data not collected. | | |

| | | | | | |
|---|---|---|---|---|---|
| | | the difference between the rescue and controller medications. | | | |
| | | During the 8-week follow up consultation, Member's ACT score will improve by at least 20%. | No; 8% improvement. | | |
| 4. | Improve AMR rates and ICS fill. | At 6 months post intervention, 75% of Members will maintain or improve (at compliance or better - 0.5 or above) asthma medication ratio (AMR). | No; 64% of Members maintained or improved AMR compared to 50% baseline. | EQ4: Did the pilot improve AMR rates? | The pilot was not successful at maintaining/improving AMR compliance for 75% of Members or maintaining/improving ICS fill for 75% of Members at 6-months post pharmacy intervention.<br><br>The pilot was successful at increasing ICS fill for 75% of moderate/severe Members who did not have an ICS fill at baseline. |
| | | By 90 days of the pharmacy intervention, at least 75% of Members, with moderate or severe asthma, who did not have an ICS fill in the past (at baseline), will have one. | Yes; 78% of Moderate/Severe Members had an ICS Fill at 90 days. | | |
| | | Adherence: At 6 months post the pharmacy intervention, compared to 6 months pre, 75% of members will be adherent to ICS fill (ICS PDC 80% or above). | No; 58% adherent to ICS fill, compared to 8% at baseline. | | |

** Itemized findings listed beginning on page 10.*

# EVALULATION SUMMARY

1. From the 611 Members in the original Member outreach list, 322 Members had successful outreach activities logged into Medhok (Tables 4-7). Out of the 322 Members, 320 Members were considered asthma pilot eligible (included as "Study Group"). Of these 320 Members, 50 Members were successfully enrolled (Member verbally agreed to participate) in the program (Table 1). Most Members who selected to not participate in the Asthma Pilot stated they had "well controlled asthma" (Table 2).

   Fifty (50) ACT standardized tests were administered, and scores were collected for each enrolled Member at baseline/initial outreach (Table 10). Members were then "triaged" either to Health Education or Pharmacy (trigger unclear).

   Of these Members, Health Education outreached to 36 Members and successfully collected 8-week follow up assessment data for 19 Members (Table 9).

   Out of the 50 enrolled Members, 26 Members (count varied depending on data source) were successfully outreached by Pharmacy. Out of these Members, Pharmacy manually calculated AMR data for 14 Members who had baseline and 6-month data available. Pharmacy also manually calculated PDC ICS data for 12 Members who had baseline, 90-day, and 6-month data available. (Tables 14-16).

   Of the 50 enrolled Members, the pilot was successful at collecting 31 ACT scores at the 8-week follow up and 26 at the 6-month follow up. Of the 26 Members, 24 Members had "complete" (baseline, 8-weeks, and 6-months) data.

   Team Member self-reported data indicates a total of approximately 30 8-hour working days spent on outreach activities related to the 50 enrolled Members. Exact time spent on pilot may vary depending on actual time spent per Member (Table 8).

2. The pilot successfully recruited 50 IEHP pediatric Members and collected baseline ACT data, however, was not successful at reaching the target specific to ACT data collection at the 8-week and 6-month follow up mark. Although the pilot did not successfully reach at least 75% of Members who participated in the Asthma Pilot in completing the 8-week follow up ACT standardized test, the pilot was successful at reaching 62% of the 50 enrolled Members. The pilot also did not successfully reach at least 75% of Members who participated in the Asthma Pilot in completing the 6-month follow up ACT standardized test, however, was successful at reaching 52% of the 50 enrolled Members (Table 10).

3. The evaluation did not find data to determine whether excellent asthma-related services were delivered. Members enrolled in the program did not complete a satisfaction survey at the 8-week follow up interval and therefore data related to the services offered was not captured.

4. The pilot was successful with at least 25% of Members stating they have an Asthma Action Plan at the 8-week follow up assessment (Table 9), however, was not successful in improving ACT scores by 20%. Although the pilot did not improve ACT scores by 20%, the pilot was successful in improving 6% of ACT scores of the 31 Members who had baseline and 8-week follow up data. At the 6-month follow up, the pilot was successful in improving 5% of ACT scores (Table 11 and 12).

5. The pilot was not successful at maintaining/improving AMR compliance for 75% of Members or maintaining/improving ICS fill for 75% of Members at 6-months post pharmacy intervention. Although the pilot was not successful at maintaining or improving AMR compliance for 75% of Members, the pilot was successful at maintaining or improving AMR compliance for 64% of Members (Table 14). The pilot was also not successful at maintaining or improving ICS fill for 75% of Members at the 6-month post pharmacy intervention, however, was successful at maintaining or improving ICS fill for 58% of Members 6-months post pharmacy intervention

(Table 15). The pilot was successful at increasing ICS fill for 75% of moderate/severe Members who did not have an ICS fill at baseline/initial pharmacy outreach (Table 16).

6. Not captured in the Asthma Pilot workflow (Appendix C), the Asthma Pilot also performed Member incentive activity. Through a manual process of data retrieval, Members who successfully completed an ACT assessment during the first 8-week follow-up were mailed (via vendor Customer Motivators) a $25 gift card. Members who successfully completed an ACT assessment during the 6-month follow-up were mailed a $50 gift card. To date, there is no data indicating whether Members redeemed their gift card or when their gift cards were mailed out. A total of 31 Members were on the eligible list to receive a $25 gift card and 22 Members were on the eligible list to received $50. The total anticipated amount spent on incentive gift cards is $1,875. This does not include costs associated to the incentives outside of the actual gift card.
7. The pilot also collected partial qualitative feedback from select Members (four responses). Due to the limited, and possibly biased, data collection efforts, the evaluation excluded an analysis on this data. See Appendix B.

## RECOMMENDATIONS

Based on this evaluation, the following is recommended:

1. Define target population.
    - Define what is "not managing asthma well".
    - Leverage data from pilot to determine target group when expanding the program.
2. Define specific Member outcome measures relevant to the target population.
    - Leverage outcomes of this evaluation for future program planning.
3. Define SMART goals and objectives.
    - Be specific on the objectives
    - Ensure the objectives are measurable
    - Ensure the objectives are achievable
    - Ensure the objectives are relevant to the goals
    - Ensure the objectives are time-based. Determine a realistic timeframe to achieve these goals and objectives.
4. Refine data collection tools.
    - Centralize data location to streamline workflow and increase transparency.
    - Use same data-collection application across different departments.
      Develop standard variables to use: Mbr ID vs. MID vs. Member Number
5. Standardize activity/approach across the different departments.
    - Outreach efforts – have clear and defined "triggers" in each step.
    - Reduce manual activity and automate when possible: AMR manual calculation vs. HEDIS AMR calculation.
6. Update the workflow to include all activity.
7. Consider using pilot metrics and outcomes as a guide when developing metrics for future asthma programs.

Access Database: S:\Asthma RIE 2020\EXPERIMENTS -09232020

# ENROLLMENT DATA

| Table 1. Member Overall Program Counts | | | | |
|---|---|---|---|---|
| **Enrolled** | **Non-Study Group** | **Study Group** | **Total** | **% Total** |
| Yes | 2 | 50 | 52 | 8.5% |
| No | . | 270 | 270 | 44.2% |
| Blank | 1 | 288 | 289 | 47.3% |
| **Total** | **3** | **608** | **611** | **100.0%** |

Data run 05/2021

| Table 2. Member Reason Given for Declining Program | | |
|---|---|---|
| **Reason** | **N** | **%** |
| Already know about asthma | 19 | 7.04 |
| Disagree with Dx - Dx in UC/ER | 7 | 2.59 |
| Doesn't want to hear the info | 1 | 0.37 |
| Have attended an asthma class | 5 | 1.85 |
| No Time | 5 | 1.85 |
| Well controlled asthma | 22 | 8.15 |
| No Response | 211 | 78.15 |
| **Total** | **270** | **100.0%** |

Items highlighted in yellow contain highest count per category. Data run 02/2021

| Table 3. Member Enrollment Success Rate | | |
|---|---|---|
| **Enrolled and Study Group** | **N** | **%** |
| Yes | 50 | 15.63 |
| No | 270 | 84.38 |
| **Total** | **320** | **100.0%** |

Items highlighted in yellow contain highest count per category. Data run 02/2021

Data Warehouse: Medhok Table

# MEDHOK CALL DATA

| Table 4. Medhok Call Data - Summary of Outreach Counts to the 320 Members | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Health Education** | | **Health Navigator** | | **Pharmacy** | | **TOTAL** | |
| **In Study Group Cohort** | **Count** | **%** | **Count** | **%** | **Count** | **%** | **Count** | **%** |
| Enrolled Members (N=50) | 345 | 99.1% | 206 | 25.5% | 152 | 92.7% | 703 | 53.2% |
| *Not Enrolled Members (N=270) | 3 | 0.9% | 603 | 74.5% | 12 | 7.3% | 618 | 46.8% |
| Total | 348 | 100.0% | 809 | 100.0% | 164 | 100.0% | 1321 | 100.0% |

Data run 05/2021
Health Navigator = Lucia Reyes
Health Education = Abashya Rayamajhi and Beatriz Alarcon
Pharmacy = Sun Chang-Vega, Adam Yu, and Lynn Hollaway

| Table 5. Medhok Call Data – Call Type and Outcome Documentation to the 320 Members | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Health Education | | Health Navigator | | Pharmacy | | TOTAL | |
| | Count | | Count | | Count | | Count | |
| | 348 | | 809 | | 164 | | 1321 | |
| **Call Type** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| General | . | . | . | . | 1 | 0.6% | 1 | 0.1% |
| HE Attendance | 4 | 1.1% | . | . | . | . | 4 | 0.3% |
| HE Follow-up | 17 | 4.9% | . | . | . | . | 17 | 1.3% |
| HE Inbound | 11 | 3.2% | . | . | . | . | 10 | 0.8% |
| HE Outbound | 309 | 88.8% | . | . | . | . | 309 | 23.4% |
| HRA Member Outbound | . | . | . | . | 1 | 0.6% | 1 | 0.1% |
| Member | . | . | 1 | 0.1% | . | . | 1 | 0.1% |
| Member Inbound | . | . | . | . | 4 | 2.4% | 4 | 0.3% |
| Member Outbound | 5 | 1.4% | 765 | 94.6% | 114 | 69.5% | 884 | 66.9% |
| Member Outreach - Verify Address | . | . | 1 | 0.1% | . | . | 1 | 0.1% |
| Pharmacy | . | .. | 3 | 0.4% | | | 3 | 0.2% |
| Provider | . | . | 36 | 4.4% | . | . | 36 | 2.7% |
| Provider Inbound | . | . | . | . | 4 | 2.4% | 4 | 0.3% |
| Provider Outbound | 3 | 0.9% | 3 | 0.4% | 40 | 24.4% | 46 | 3.5% |
| | Count | | Count | | Count | | Count | |
| | 348 | | 809 | | 164 | | 1321 | |
| **Outcome** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| Completed | 4 | 1.1% | . | . | 10 | 6.1% | 14 | 1.1% |
| Initial Call - Verified Member Rights | . | . | 1 | 0.1% | . | . | 1 | 0.1% |
| Left Message | 168 | 48.3% | 23 | 2.8% | 47 | 28.7% | 238 | 18.0% |
| Left a Voice Mail | . | . | 352 | 43.5% | 9 | 5.5% | 361 | 27.3% |
| Left a Voicemail | . | . | 5 | 0.6% | . | . | 5 | . |
| Materials Mailed | 4 | 1.1% | 2 | 0.2% | 4 | 2.4% | 10 | 0.8% |
| Member Declined Contact | 3 | 0.9% | . | . | . | . | 3 | 0.2% |
| No Answer | 19 | 5.5% | 120 | 14.8% | 11 | 6.7% | 150 | 11.4% |
| Outcome Successful | 132 | 37.9% | 178 | 22.0% | 70 | 43.13 | 380 | 28.8% |
| Partial Complete | 4 | 1.1% | 33 | 4.1% | 1 | . | 38 | 2.9% |
| Phone Disconnected | 1 | 0.3% | 60 | 7.4% | . | . | 61 | 4.6% |
| Reached Approved Rep | . | . | 7 | 0.9% | . | . | 7 | 0.5% |
| Reached Member | . | . | 1 | 0.1% | . | 0.63 | 1 | 0.1% |
| Unable to Reach | . | . | 10 | 1.2% | 1 | . | 11 | 0.8% |
| Undeliverable | 1 | 0.3% | . | . | . | . | 1 | 0.1% |
| Unsuccessful | 12 | 3.4% | 1 | 0.1% | 10 | 6.25 | 23 | 1.7% |
| Wrong Number | . | . | 16 | 2.0% | 1 | 0.63 | 17 | 1.3% |
| **Average call per Member** | **1.1** | | **2.5** | | **0.5** | | **4.1** | |

Data run 05/2021

Items highlighted in yellow contain highest count per category. / Health Navigator = Lucia Reyes /. Health Education = Abashya Rayamajhi and Beatriz Alarcon / Pharmacy = Sun Chang-Vega, Adam Yu, and Lynn Hollaway / Average call per Member = count / 320

| Table 6. Medhok Call Data – Call Type and Outcome Documentation to the 270 Not Enrolled Members | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Health Education | | Health Navigator | | Pharmacy | | TOTAL | |
| | Count | | Count | | Count | | Count | |
| | 3 | | 603 | | 12 | | 618 | |
| **Call Type** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| General | . | . | . | . | . | . | . | . |
| HE Attendance | 1 | 33.3% | . | | | . | 1 | 0.2% |
| HE Follow-up | 1 | 33.3% | . | . | . | . | 1 | 0.2% |
| HE Inbound | . | . | . | . | . | . | . | . |
| HE Outbound | 1 | 33.3% | . | . | . | . | 1 | 0.2% |
| HRA Member Outbound | . | . | . | . | . | . | . | . |
| Member | . | . | . | . | . | . | . | . |
| Member Inbound | . | . | . | . | . | . | . | . |
| Member Outbound | . | . | 568 | 94.2% | . | . | 568 | 91.9% |
| Member Outreach - Verify Address | . | . | 1 | 0.2% | . | . | 1 | 0.2% |
| Pharmacy | . | . | 3 | 0.5% | . | . | 3 | 0.5% |
| Provider | . | . | 31 | 5.1% | . | . | 31 | 5.0% |
| Provider Inbound | . | . | . | . | 3 | 2.0% | 3 | 0.5% |
| Provider Outbound | . | . | . | . | 9 | 5.9% | 9 | 1.5% |
| | Count | | Count | | Count | | Count | |
| | 3 | | 603 | | 12 | | 618 | |
| **Outcome** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| Completed | 1 | 33.3% | . | . | 4 | 33.3% | 5 | 0.8% |
| Initial Call - Verified Member Rights | . | . | . | . | . | . | . | . |
| Left Message | 1 | 33.3% | 16 | 2.7% | 5 | 41.7% | 22 | 3.6% |
| Left a Voice Mail | . | . | 275 | 45.6% | . | . | 275 | 44.5% |
| Left a Voicemail | . | . | . | . | . | . | . | . |
| Materials Mailed | . | . | . | . | . | . | . | . |
| Member Declined Contact | . | . | . | . | . | . | . | . |
| No Answer | . | . | 117 | 19.4% | . | . | 117 | 18.9% |
| Outcome Successful | 1 | 33.3% | 93 | 15.4% | 2 | 16.7% | 96 | 15.5% |
| Partial Complete | . | . | 14 | 2.3% | . | . | 14 | 2.3% |
| Phone Disconnected | . | . | 57 | 9.5% | . | . | 57 | 9.2% |
| Reached Approved Rep | . | . | 5 | 0.8% | . | . | 5 | 0.8% |
| Reached Member | . | . | . | . | . | . | . | . |
| Unable to Reach | . | . | 9 | 1.5% | 1 | 8.3% | 10 | 1.6% |
| Undeliverable | . | . | . | . | . | . | . | . |
| Unsuccessful | . | . | 1 | 0.2% | . | . | 1 | 0.2% |
| Wrong Number | . | . | 16 | 2.7% | . | . | 16 | 2.6% |
| **Average call per Member** | **0.0** | | **2.2** | | **0.0** | | **2.3** | |

Data run 05/2021

Items highlighted in yellow contain highest count per category. / Health Navigator = Lucia Reyes / Health Education = Abashya Rayamajhi and Beatriz Alarcon / Pharmacy = Sun Chang-Vega, Adam Yu, and Lynn Hollaway / Average call per Member = count / 270

| Table 7. Medhok Call Data – Call Type and Outcome Documentation to the 50 Enrolled Members | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Health Education | | Health Navigator | | Pharmacy | | TOTAL | |
| | Count | | Count | | Count | | Count | |
| | 345 | | 206 | | 152 | | 703 | |
| **Call Type** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| General | . | . | . | . | 1 | 0.7% | 1 | 0.1% |
| HE Attendance | 3 | 0.9% | . | . | . | . | 3 | 0.4% |
| HE Follow-up | 16 | 4.6% | . | . | . | . | 16 | 2.3% |
| HE Inbound | 10 | 2.9% | . | . | . | . | 10 | 1.4% |
| HE Outbound | 308 | 89.3% | . | . | . | . | 308 | 43.8% |
| HRA Member Outbound | . | . | . | . | 1 | 0.7% | 1 | 0.1% |
| Member | . | . | 1 | 0.5% | . | . | 1 | 0.1% |
| Member Inbound | . | . | . | . | 4 | 2.6% | 4 | 0.6% |
| Member Outbound | 5 | 1.4% | 197 | 95.6% | 114 | 75.0% | 316 | 45.0% |
| Provider | . | . | 5 | 2.4% | . | . | 5 | 0.7% |
| Provider Inbound | . | . | . | . | 1 | 0.7% | 1 | 0.1% |
| Provider Outbound | 3 | 0.87% | 3 | 1.5% | 31 | 20.4% | 37 | 5.3% |
| | Count | | Count | | Count | | Count | |
| | 345 | | 206 | | 152 | | 703 | |
| **Outcome** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** |
| Completed | 3 | 0.9% | . | . | 6 | 3.9% | 9 | 1.3% |
| Initial Call - Verified Member Rights | . | . | 1 | 0.5% | . | . | 1 | 0.1% |
| Left Message | 167 | 48.4% | 7 | 3.4% | 42 | 27.6% | 216 | 30.7% |
| Left a Voice Mail | . | . | 77 | 37.4% | 9 | 5.9% | 86 | 12.2% |
| Left a Voicemail | . | . | 5 | 2.4% | . | . | 5 | 0.7% |
| Materials Mailed | 4 | 1.2% | 2 | 1.0% | 4 | 2.6% | 10 | 1.4% |
| Member Declined Contact | 3 | 0.9% | . | . | . | . | 3 | 0.4% |
| No Answer | 19 | 5.5% | 3 | 1.5% | 11 | 7.2% | 33 | 4.7% |
| Outcome Successful | 131 | 38.0% | 85 | 41.3% | 68 | 44.7% | 284 | 40.4% |
| Partial Complete | 4 | 1.2% | 19 | 9.2% | 1 | 0.7% | 24 | 3.4% |
| Phone Disconnected | 1 | 0.3% | 3 | 1.5% | . | . | 4 | 0.6% |
| Reached Approved Rep | . | . | 2 | 1.0% | . | . | 2 | 0.3% |
| Reached Member | . | . | 1 | 0.5% | . | . | 1 | 0.1% |
| Unable to Reach | . | . | 1 | 0.5% | . | . | 1 | 0.1% |
| Undeliverable | 1 | 0.3% | . | . | . | . | 1 | 0.1% |
| Unsuccessful | 12 | 3.5% | . | . | 10 | 6.6% | 22 | 3.1% |
| Wrong Number | . | . | . | . | 1 | 0.7% | 1 | 0.1% |
| **Average call per Member** | **6.9** | | **4.1** | | **3.0** | | **14.1** | |

Data run 05/2021
Items highlighted in yellow contain highest count per category.
Health Navigator = Lucia Reyes
Health Education = Abashya Rayamajhi and Beatriz Alarcon
Pharmacy = Sun Chang-Vega, Adam Yu, and Lynn Hollaway
Average call per Member = count / 50

Self-Reported Data: HE, HN, Pharmacy Teams

## TIME DATA ANALYSIS

| Table 8. Self-Reported Estimated Team Member Outreach Time - 50 Enrolled Members | | | | |
|---|---|---|---|---|
| **Team** | **Health Education** | **Health Navigator** | **Pharmacy** | **TOTAL** |
| | **Count** | **Count** | **Count** | **Count** |
| Team Member | 2 | 1 | 3 | 6 |
| **Type of Activity** | **Average minutes spent per Member** | **Average Minutes spent per Member** | **Average Minutes spent per Member** | **Average Minutes spent per Member** |
| Pre-Outreach Call / Preparation | 45 | 30 | 20 | 95 |
| Member Outreach Call | 50 | 60 | 18 | 223 |
| Provider Outreach Call | . | . | 12 | 140 |
| Additional Resources to Member | . | 30 | 13 | 55 |
| Post-Outreach / Documentation | 30 | 30 | 25 | 128 |
| **Total minutes per Member:** | **125** | **150** | **88** | **.** |
| ***# of Members:** | **36** | **50** | **27** | . |
| **Total time (mins) per Member:** | **4500** | **7500** | **2376** | **14376** |
| **Total time (hours) for calls made:** | **75** | **125** | **39.60** | **239.60** |
| **Total time (days- 8hrs/day) for calls made:** | **9.38** | **15.63** | **4.95** | **29.95** |

* Total number of enrolled unique Members outreached per team with at least one outreach documented.
Data run 02/2021
Total time (mins) per Member = Total minutes per Member / # of Members
Total time (hours) for calls made = Total time (mins) per Member / 60
Total time (days- 8hrs/day) for calls made = Total time (hours) for calls made / 8

Access Database: S:\Asthma RIE 2020\EXPERIMENTS -09232020

## HEALTH EDUCATION DATA ANALYSIS

| Table 9. Access Data - Outreach Calls to the 50 Enrolled / Study Group Members | | | | | | |
|---|---|---|---|---|---|---|
| | **Health Education** | | | | | |
| | **Enrolled / Study Group** | | | ***Complete Data** | | |
| | **N=36** | | | **N=19** | | |
| | **PRE** | **POST** | **% Change** | **PRE** | **POST** | **% Change** |
| **Pre/Post Assessment Question** | **N=36** | **N=19** | **-47.22** | **N=19** | **N=19** | **0.00** |
| **1. What have you done to reduce the # of triggers at home/work/school?** | | | | | | |
| Various responses | 36 | 19 | -47.22 | 19 | 19 | 0.00 |
| **2. Do you have and Asthma Action Plan?** | | | | | | |
| Yes | 7 | 9 | 28.57 | 3 | 9 | 200.00 |
| No | 29 | 10 | -65.52 | 16 | 10 | -37.50 |
| **3. How confident are you in your ability to use your controller medication correctly?** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Very confident | 1 | 3 | 200.00 | . | 3 | . |
| Confident | 10 | 9 | -10.00 | 5 | 9 | 80.00 |
| Somewhat confident | 2 | . | . | . | . | . |
| Not confident at all | 2 | . | . | 1 | . | . |
| Doesn't have a controller med | 17 | 7 | -58.82 | 11 | 7 | -36.36 |
| **4. How confident are you in your ability to control your asthma?** | | | | | | |
| Very confident | 5 | 3 | -40.00 | 3 | 3 | 0.00 |
| Confident | 19 | 14 | -26.32 | 12 | 14 | 16.67 |
| Somewhat confident | 11 | 2 | -81.82 | 4 | 2 | -50.00 |
| Not confident at all | 1 | . | . | . | . | |
| **5. How confident are you understanding all the mediations that you are currently taking correctly?** | | | | | | |
| Very confident | 6 | 8 | 33.33 | 3 | 8 | 166.67 |
| Confident | 22 | 9 | -59.09 | 12 | 9 | -25.00 |
| Somewhat confident | 7 | 1 | -85.71 | 4 | 1 | -75.00 |
| Not confident at all | 1 | 1 | 0.00 | . | 1 | . |
| **6. In the past 4 weeks, how often have you had shortness of breath?** | | | | | | |
| More than once a day | 2 | 1 | -50.00 | . | 1 | . |
| Once a day | 3 | 1 | -66.67 | 1 | 1 | 0.00 |
| 3 to 6 times a week | 5 | . | . | 2 | . | . |
| Once or twice a week | 9 | 4 | -55.56 | 5 | 4 | -20.00 |
| Not at all | 17 | 13 | -23.53 | 11 | 13 | 18.18 |
| **7.How confident are you understand all the signs and symptoms of Asthma?** | | | | | | |
| Very confident | 3 | 6 | 100.00 | 1 | 6 | 500.00 |
| Confident | 14 | 9 | -35.71 | 10 | 9 | -10.00 |
| Somewhat confident | 17 | 4 | -76.47 | 8 | 4 | -50.00 |
| Not confident at all | 2 | . | . | . | . | . |

Data run 02/2021

*Complete data = baseline and 8-week follow-up data available

**See Appendix A for responses.

Access Database: S:\Asthma RIE 2020\EXPERIMENTS -09232020

## ACT DATA ANALYSIS

**Table 10. ACT Scores for the 50 Enrolled Members**

| | Enrolled | | | | *Complete Data | | | |
|---|---|---|---|---|---|---|---|---|
| **ACT 4-11** | **Baseline** | **1st Follow Up** | **2nd Follow Up** | **% Change** | **Baseline** | **1st Follow Up** | **2nd Follow Up** | **% Change** |
| Score 1-12 | . | . | . | . | . | . | | . |
| Score 13 - 19 | 3 | 3 | 2 | -33.33 | 3 | 3 | 2 | -33.33 |
| Score 20-27 | 29 | 16 | 14 | -51.72 | 11 | 11 | 12 | 9.09 |
| *Subtotal* | *32* | *19* | *16* | *-50.00* | *14* | *14* | *14* | *0.00* |
| **ACT 12-21** | | | | | | | | |
| Score 1-12 | 2 | . | | . | . | . | | . |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Score 13-19 | 6 | 1 | 1 | -83.33 | 1 | 1 | 1 | 0.00 |
| Score 20-25 | 10 | 11 | 9 | -10.00 | 9 | 9 | 9 | 0.00 |
| *Subtotal* | *18* | *12* | *10* | *-44.44* | *10* | *10* | *10* | *0.00* |
| **Total** | **50** | **31** | **26** | **-48.00** | **24** | **24** | **24** | **0.00** |

Data run 05/2021
"If your score is 19 or less, your asthma symptoms may not be as well controlled as they could be". www.Asthma.com
*Complete data = baseline, 8-week follow up, and 6-month follow up data available

| **Table 11. ACT Scores for the 50 Enrolled Members – Baseline Compared to 8-weeks Post Intervention** | | |
|---|---|---|
| **ACT Data, N=31** | | |
| | **Baseline** | ***Post** |
| % of Members who achieved ACT score 20 or higher | 81% | 87% |

Data run 05/2021
"If your score is 19 or less, your asthma symptoms may not be as well controlled as they could be". www.Asthma.com
*Post = 8-week follow-up

| **Table 12. ACT Scores for the 50 Enrolled Members – Baseline Compared to 6-months Post Intervention** | | |
|---|---|---|
| **ACT Data, N=24** | | |
| | **Baseline** | ***Post** |
| % of Members who achieved ACT score 20 or higher | 83% | 88% |

Data run 05/2021
"If your score is 19 or less, your asthma symptoms may not be as well controlled as they could be". www.Asthma.com
*Post = 6-month follow-up

| **Table 13. ACT Incentive Data** | | | | |
|---|---|---|---|---|
| **ACT 4-11** | **Baseline - $0** | **1st Follow Up - $25** | ***2nd Follow Up - $50** | ****Total $ Amount** |
| Yes | 0 | 19 | 13 | $ 1,125.00 |
| No | 32 | 0 | 0 | $ - |
| Unknown | 0 | 0 | 0 | $ - |
| *Subtotal* | *32* | *19* | *13* | *$ 1,125.00* |
| **ACT 12-21** | | | | |
| Yes | 0 | 12 | 9 | $ 750.00 |
| No | 18 | 0 | 0 | $ - |
| Unknown | 0 | 0 | 0 | $ - |
| *Subtotal* | *18* | *12* | *9* | *$ 750.00* |
| **Total** | **50** | **31** | **22** | **$ 1,875.00** |

Data run 06/2021
*There is ACT 6-month follow-up data for 24 Members, however, only 22 of these Members were on the incentive-eligible list.
**Only includes costs associated to the actual gift cards.

Excel Document: Pharmacy Team

## PHARMACY AMR AND PDC DATA ANALYSIS

| Table 14. Pharmacy AMR Data – Baseline Compared to 6-months Post Intervention | | |
|---|---|---|
| ***OVERALL, N=14** | | |
| | **Baseline** | **Post** |
| % of Members who achieved AMR 0.50 or higher | 50% | 64% |
| **MODERATE OR SEVERE, n=5** | | |
| | **Baseline** | **Post** |
| % of Members who achieved AMR 0.50 or higher | 100% | 100% |
| **MILD OR N/A, n= 9** | | |
| | **Baseline** | **Post** |
| % of Members who achieved AMR 0.50 or higher | 22% | 44% |

Data run 05/2021
Overall, seven (7) Members had an AMR of 0.5 or higher at baseline.
Overall, nine (9) Members had an AMR of 0.5 or higher at 6-months post intervention.
Post = 6-month follow-up
AMR manually calculated by the Pharmacy Team. AMR = Units of Controller / (Units of Controller + Reliever).
Data extracted from pharmacy claims data. *Includes Members with baseline and 6-month follow-up data only

| Table 15. Pharmacy ICS PDC Data – Baseline Compared to 6-months Post Intervention | | |
|---|---|---|
| ***OVERALL, N=14** | | |
| | **Baseline** | **Post** |
| % of Members who achieved PDC 80% or higher | 8% | 58% |
| **MODERATE OR SEVERE, n=5** | | |
| | **Baseline** | **Post** |
| % of Members who achieved PDC 80% or higher | 14% | 71% |
| **MILD OR N/A, n=9** | | |
| | **Baseline** | **Post** |
| % of Members who achieved PDC 80% or higher | 0% | 40% |

Data run 05/2021
One (1) Member had PDC 80% or higher at baseline.
Seven (7) Members had PDC 80% or higher at 6-months post intervention.
Post = 6-month follow-up
PDC manually calculated by the Pharmacy Team.
Data extracted from pharmacy claims data.
*Includes Members with baseline and 6-month follow-up data only

| Table 16. ICS Fill 90-Days Post Pharmacy Intervention - Members with "0" Fill at Baseline | | | | | | |
|---|---|---|---|---|---|---|
| **Moderate or Severe** | | | | | | |
| | **Pharmacy Intervention** | | | | | |
| ICS Fill Date within 90 Days | **No** | **%** | **Yes** | **%** | **Total** | **%** |
| No | 3 | 50.0% | 2 | 22.2% | 5 | % |
| Yes | 3 | 50.0% | 7 | 77.8% | 10 | 66.7% |
| **Total** | **6** | **100.0%** | **9** | **100.0%** | **15** | **100.0%** |

Data run 05/2021
ICS PDC manually calculated by the Pharmacy Team.
Data extracted from pharmacy claims data. *Includes Members with baseline and 90-month data.

Data Warehouse: DwProd_Staging

## MEMBER DEMOGRAPHICS DATA

| Table 17. Demographics – Members Enrolled | | |
|---|---|---|
| | Enrolled | |
| | N=50 | |
| **Age** | **N** | **%** |
| 0-10 | 26 | 50.00 |
| 11-20 | 22 | 42.31 |
| 21-30 | 2 | 3.85 |
| Unknown | . | . |
| **Ethnicity** | | |
| American Indian or Alaska Native | . | . |
| Asian or Pacific Islander | . | . |
| Black | 10 | 19.23 |
| Caucasian | 5 | 9.62 |
| Hispanic | 30 | 57.69 |
| No Response / Unknown | 5 | 9.62 |
| Other Race or Ethnicity | . | . |
| **Gender** | | |
| F | 19 | 36.54 |
| M | 31 | 59.62 |
| **Homeless Indicator** | | |
| Homeless | 4 | 7.69 |
| Not Homeless | 46 | 88.46 |
| **Language** | | |
| English | 38 | 73.08 |
| Spanish | 12 | 23.08 |
| **Member Region** | | |
| Corona/Temecula/Hemet | . | . |
| High Desert | . | . |
| Low Desert | . | . |
| Riverside | . | . |
| San Bernardino Proper | 50 | 100 |
| West San Bernardino | . | . |
| Out of Area | . | . |

Items highlighted in yellow contain highest count per category.
* Data run 02/2021

## APPENDIX A

| | TestType | | Total |
|---|---|---|---|
| | Post Assessment | Pre Assessment | |
| | MemberRecordID | MemberRecordID | MemberRecordID |
| | Frequency | Frequency | Frequency |
| Q1 | | | |
| | 1 | . | 1 |
| Clean carpet monthly, using Lysol, daily cleaning | 1 | . | 1 |
| Cleaning carpet monthly, using Lysol, daily cleaning | 1 | . | 1 |
| Cleaning frequently, wash bedding once a week, washing towels frequently | 1 | . | 1 |
| Cleaning frequently, washing bedding 3 times a week, and they don't have any pets. | . | 1 | 1 |
| Daily regiment for asthma/allergy | 1 | . | 1 |
| Everything is the same and no changes have been made. | 1 | . | 1 |
| Everything is the same. Using a peak flow meter | 1 | . | 1 |
| Frequently cleaning | . | 2 | 2 |
| Instead of using Febreze. They use essential oils & diluted with water and spray it around the house. | . | 1 | 1 |
| Instead of using Febreze. They use essential oils and diluting with water and spraying it around the house. | . | 1 | 1 |
| No pets, washing bedding frequently, cleaning | . | 1 | 1 |
| Not using fabric softener when washing clothes | . | 2 | 2 |
| Nothing new | 1 | . | 1 |
| Peak flow meter and spacer | 1 | . | 1 |
| Re-locating, change diet, install flooring, using natural cleansers | . | 1 | 1 |
| Staying inside due to fire smoke and smell. | . | 1 | 1 |
| Stop using chemicals to clean and now using natural cleanser to clean. | 1 | . | 1 |
| Using an air purifier | . | 1 | 1 |
| Using nebulizer | 1 | . | 1 |
| Using peak flow meter. | 1 | . | 1 |
| clean home more frequently | . | 1 | 1 |
| cleaning carpet once month, deep cleaning one week, bedding washed twice a week | . | 2 | 2 |
| cleaning frequently. Also, when her child experiencing asthma symptoms they get him to relax and this helps. | . | 1 | 1 |
| doing the same things | 1 | . | 1 |
| has controller and rescue meds | 1 | . | 1 |
| keeping window close, room clean, keep shoes out room | . | 1 | 1 |
| no | . | 1 | 1 |
| none | . | 1 | 1 |
| nothing | . | 1 | 1 |
| nothing new | 1 | . | 1 |
| stop using chemicals to clean and now using natural cleanser to clean. | 1 | . | 1 |
| switch to natural cleansers and essential oils | 1 | . | 1 |

| | TestType | | Total |
|---|---|---|---|
| | Post Assessment | Pre Assessment | |
| | MemberRecordID | MemberRecordID | MemberRecordID |
| | Frequency | Frequency | Frequency |
| switch to natural cleansers and secessional oils | 1 | . | 1 |
| using an air purifier and nebulizer | 1 | . | 1 |
| Total | 19 | 19 | 38 |

## APPENDIX B

## Qualitative Data – Member Testimonials

**Members Testimonial**

**Mother of Members**

200504006*****
200209004*****

"I had a wonderful overall experience. I really needed education for both my boys who have Asthma. Health education taught me how to deal with my boys' constant wheezing."

"I have now learned how to use the Asthma action plan. The Peak flow meter and spacer I have received have helped my boys. The pharmacy recommended that I get a humidifier and it has really helped them with their allergies."

"Please do not stop what you are doing. You guys are doing a great job. I have recommended the IEHP Asthma program to my neighbor who has asthma, she is also the god mother to my children."

20071100315600: "Were able to assist with other concerns and PCP appointments. Happy with the extra care aside from Asthma. Team went above and beyond with helping address other concerns and help with navigation. Feels it helped a lot and very happy."

## APPENDIX C

## Asthma Pilot Workflow