CALIFORNIA HEALTH FACILITIES FINANCING AUTHORITY ("Authority")

California Health Access Model Program ("CHAMP")
(Information Item)

September 28, 2017

BACKGROUND

The purpose of the California Health Access Model Program ("CHAMP") is to support innovative methods of delivering health care services more effectively and to improve access and health outcomes for vulnerable populations and communities by bringing services, including preventive services, to individuals where they live or congregate.

CHAMP is comprised of two separate phases:

1. Award grants to one or more demonstration projects up to a combined total amount of $1.5 million.
2. If the demonstration project is determined successful, the Authority may launch the second phase of CHAMP to support additional "replication" projects with grants up to a combined total amount of $5 million.

Any grant funds not expended by January 1, 2020 will revert back to the CHFFA fund.

PHASE ONE

On January 30, 2014, CHFFA awarded a CHAMP demonstration grant in the amount of $1,426,089 to the San Francisco Health Plan ("SFHP") to expand and evaluate an existing pilot program for high-risk, high-cost patients to improve their health outcomes and experience of care, as well as to lower the cost of delivering care. SFHP is a public Medi-Cal managed care plan serving San Francisco County with over 94,000 members, which constitutes more than 17% of the entire population in San Francisco and their pilot program is known as Community Based Care Management ("CBCM"),

SFHP expanded its existing pilot program to serve an additional 300 high-risk, high-utilizing SFHP members and to more rigorously evaluate the impact on clinical outcomes, member experience and costs trends. The CHAMP grant funds supported various staff positions, contractors, and enrollee expenses.

SFHP submitted its final evaluation in August of 2016, which reflected the original two year grant period, and an updated evaluation in September 2017 (Attachment A), which reflected the additional 6 months after the grant period. The additional 6 month data collection and analysis have provided SFHP with a more substantiated trend analysis and conclusion, which SFHP will present on September 28, 2017 in a PowerPoint presentation to the Authority (Attachment B). The PowerPoint presentation will also include information on the Health Homes Program ("HHP"), which is a state-federal program administered by the California Department of Health Care Services, currently replicating portions of the CBCM model.

PHASE TWO

Pursuant to the CHAMP statute (Government Code section 15438.10), if the CBCM model is successful at developing a new method of delivering high-quality and cost-effective health care services in community settings that result in increased access to quality health care and preventive services or improved health care outcomes for vulnerable populations or communities, or both, then the Authority may implement a second grant program that awards not more than a combined total grant amount not to exceed $5 million to eligible recipients, as defined by the Authority, to replicate the CBCM model in additional California communities.

Authority staff believes replication of the CBCM model has been achieved by the California Department of Health Care Services through HHP. Since the CBCM model is currently being replicated, it is Authority staff's recommendation that the Authority does not pursue a second grant program for replication and the funds should revert back to the CHFFA fund.

Nevertheless, if the Authority chooses to pursue a second grant program and replicate the CBCM model, staff provides the following options:

1. Replicate the CBCM model in other communities throughout the state through a competitive grant process, and award a grant to one or more Medi-Cal managed care plans up to a combined total grant amount not to exceed $5 million.
2. Explore the ability to replicate the CBCM model in communities throughout the state by supporting HHP.

If the Authority does not choose to replicate the CBCM model, the remaining grant funds will revert back to the CHFFA fund balance by January 1, 2020.

California Health Access Model Program
Community Based Care Management

Evaluation Update

September 2017

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Evaluation Objective

The objective of our memo is to present updated findings of our Community Based Care Management (CBCM) program administered by San Francisco Health Plan's (SFHP) Care Management Department staff and address the key objectives set out in our grant application (for full evaluation details please refer to *CHAMP CBCM Final Evaluation* delivered in August 2016). The following memo represents our updated findings for our CBCM intervention, funded by the California Health Access Model Program (CHAMP) grant, for the period starting June 2014 and ending June 2016. While the funding period ended in June 2016, our evaluation period reaches beyond this, and includes data for individuals enrolled in the program from October 2013 to July 2015, and who were followed through December 2016.

The key objectives of the CHAMP grant were to:

- Serve 300 vulnerable SFHP members who are high utilizers of hospital inpatient and emergency departments and at high risk for mortality and morbidity due to housing instability, mental illness and addiction complicating underlying chronic illness. High utilizers are typically vulnerable populations with complex social and behavioral health needs who have multiple chronic medical conditions. Due to their complicated medical and social needs and frequent disengagement from primary care, this population tends to heavily rely on ED facilities, in-patient admissions, yet remains difficult to engage in on-going primary care.
    - We were able to successfully expand the CBCM program to serve and evaluate SFHP high utilizing members (members must have met program criteria).
- Evaluate whether the CBCM program could improve clinical outcomes of high utilizers; reduce inpatient admissions and ED visits in favor of increased primary care visits; improve their overall patient experience; and reduce the cost of care.
    - The evaluation showed a reduction in inpatient visits in favor of increased primary care visits.
    - The program demonstrated a reduction in overall utilization costs.
    - During the evaluation period, we did not find improved clinical outcomes or reduce ED visits.
- Develop materials to support the replication of the model by other public or nonprofit Medi-Cal managed care plans in California if successful.
    - The full evaluation and all replication materials were included in the *CHAMP CBCM Final Evaluation* delivered in August 2016.

Evaluation Key Objectives

- Evaluate the impact of the CBCM program interventions on treatment cohort health services use (inpatient admission, inpatient visits and ED visits)
- Evaluate clinical and patient centered outcomes [i.e. Healthcare Effectiveness Data and Information Set (HEDIS), and patient satisfaction]
- Evaluate the financial impact ('cost savings') of the program, accounting for CBCM program costs and changes in health services utilization

Evaluation Key Findings

Health Service Utilization: Please note that the treatment cohort are SFHP members who were engaged in the CBCM program and received program intervention (i.e. program services). The comparison cohort are SFHP members who are tracked (for evaluation purposes) but not engaged, by random selection, to

be recruited into the CBCM program and therefore did not receive program intervention (i.e. program services).

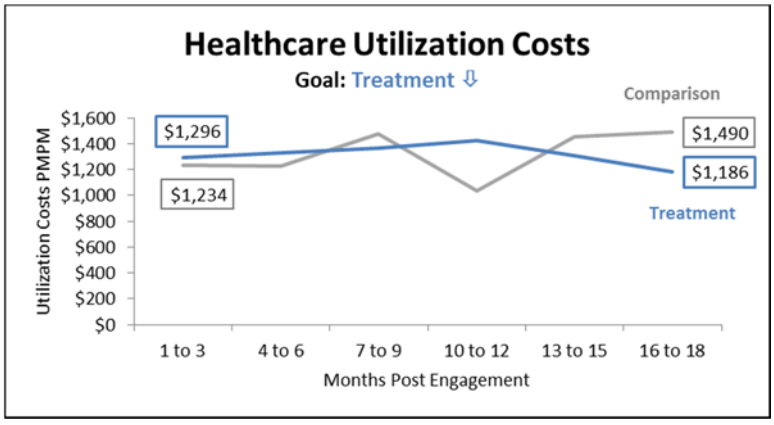
- Evaluation found **statistically significant fewer long (7+ bed days) inpatient visits** in the treatment cohort compared to the comparison cohort.
    - Shorter inpatient visits indicate that a member is less acutely ill when they become admitted.
- Evaluation found **statistically significant higher primary care visits** in the treatment cohort compared to the comparison cohort.
    - This is a result of one of the primary interventions of the CBCM program which is to connect and strengthen a member's relationship with their PCP.
- Evaluation found no improvement in ED visits between treatment and comparison cohorts
- Our program intervention was most effective for members with a history of hospital admissions. It was less effective for members with frequent ED users with no history of hospital admissions.

Clinical & Patient Centered Outcomes: Patient centered outcomes are measured through our patient satisfaction survey which is delivered to treatment cohort to measure their satisfaction with the program and also assess their self-reported health.

- Our program had a **77% survey response rate**. Given the complexities of this high utilization population this response rate is significant and telling of the rapport built between our Community Coordinators and the members.
- **97% of members** in the program indicated that their experience with SFHP Care Support was helpful. This response rate indicates that members found the Community Coordinators and the CBCM program effective in meeting their needs.
- Review of the available HEDIS data by our Principal Investigator, and our Business Intelligence department determined that the data was not comprehensive enough to interpret any valuable clinical outcomes. Barriers to incorporating the HEDIS data included; a very small sample size to pull from, and measurement timing did not align between the HEDIS data and CBCM program data.

Financial Analysis:

- SFHP was awarded $1,426,089 in CHAMP funding from CHFFA to cover personnel and non-personnel expenses for the two year grant period. **In total SFHP used $918,673.30 of these available funds**.
- We found **reductions in overall health service utilization costs** for the treatment cohort (members who received the program intervention) when compared to the comparison cohort.



- We expected to see initial reductions in costs in both the treatment and comparison cohorts, and anticipated at the end of the 18 months to begin to see significant trending of greater reductions in the treatment cohort as a result of our program interventions. The comparison cohort costs were unstable and at the end of the 18 months appear to begin trending towards greater costs. A cost per member per month (PMPM) metric was used to allow comparison between the treatment and comparison cohorts. At the end of evaluation period (months 16 through 18) the treatment cohort had utilization cost of $1,186 PMPM and the comparison cohort had utilization cost of $1,490 PMPM.

Program Summary: Lessons Learned

Through this evaluation and with the support of the CHFFA we were able to take away key lessons learned:

- The CBCM program intervention had a favorable impact on health services utilization of high utilizers.
    - Targeting the right subset of high utilizers is key. Our program intervention was most effective for high utilizers with a history of hospital admissions.
- Programs' financial impact should focus on reducing cost related to episodic health services utilization, and should account for increase cost of beneficial health services utilization spending.
    - Overall 'cost savings' may not be achievable.
- Data collection and modeling for this type of program evaluation are difficult.
    - Important to have a large sample size and at least 18 months of data to better evaluate effects of interventions.
- Primary components of CBCM program (target population, staffing structure and primary outcomes) are being replicated by the Medi-Cal Health Homes Program benefit launching in July 2018 by the DHCS.
    - Additional grant funding from grants, such as the CHAMP grant, could be utilized to complement this new benefit by funding non-billable personnel and non-personnel costs such as; iphones, ipads, and supplemental clinical and programmatic staff for evaluation purposes.

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California Health Access Model Program
Community Based Care Management

Post Final Evaluation Update

September 2017

Agenda

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- **Overview of Grant Achievements**
- **Overview of Grant Evaluation Objectives**
- **Member Profile**
- **Evaluation Key Findings**
  - **Financial**
  - **Patient Centered Outcomes**
  - **Health Service Utilization Outcomes**
- **Program Summary: Lessons Learned**
- **Q&A**

Grant Achievements

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- Expand existing SFHP pilot program
  - Serve an additional 300 high-risk, high-utilizing SF Health Plan members
- Evaluate the impact on clinical outcomes, member experience and costs through comparison between treatment & comparison group.
- Submit quarterly status reports & budget.
- Developed manuals to support replication:
  - Guide to essential and preferred program features
  - Hiring guide, a training guide, a budget guide with cost justification methodology
  - Guide to developing key partnerships
  - Guide on how to gather and report on key data elements to measure success and sustainability

Grant Evaluation Objectives

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As indicated in the grant application, the key objectives of the grant were to evaluate the following:

- Examine the financial impact ('cost savings') of the program, accounting for CBCM program costs and changes in health services utilization
- Evaluate clinical and patient centered outcomes [i.e. Healthcare Effectiveness Data and Information Set (HEDIS), and patient satisfaction]
- Evaluate the impact of the CBCM program interventions on SFHP members health services use (inpatient admission, inpatient visits and ED visits)

Before presenting our key findings we will present a member profile describing a ‘representative’ CBCM member.

Please keep this member in mind as we go through the key findings, and lessons learned.

Member Profile

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Member Deborah Smith (not her real name) is a 54 year old African American female. Her diagnoses include:

- COPD
- Vitamin D deficiency
- Breast cancer (in remission)
- Schizophrenia

In the last 12 months Deborah has been to the ED three times, and admitted to the hospital four times due to her unmanaged COPD.

Deborah is lives alone at Kelly Cullen Community (supportive housing) and receives Supplemental Security Income (SSI)

- SSI provides Deborah $800 per month to cover all her expenses.

Deborah is not currently connected with any Care Management program, and is not being followed regularly by her Primary Care Physician.

Key Findings: Financial Outcomes

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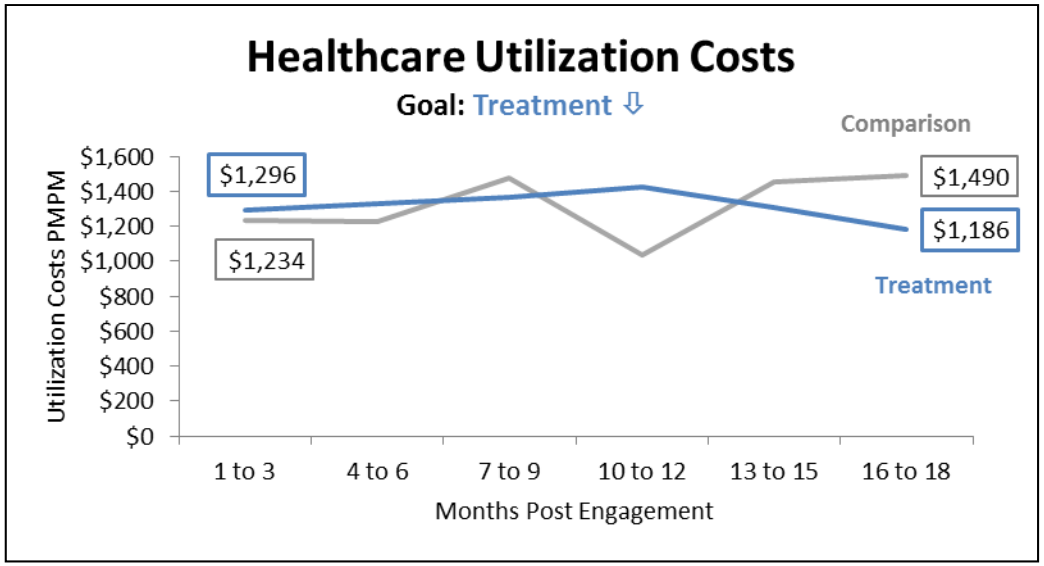
- We found **reductions in overall health service utilization costs** for the treatment cohort (members who received the program intervention) when compared to the comparison cohort.



- SFHP was awarded from CHFFA $1,426,089 in funding to cover personnel and non-personnel expenses for the two year grant period and in total **SFHP used $918,673.30**.

Key Findings: Patient Centered

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- Our program had a **77% survey response rate**. Given the complexities of this high utilization population this response rate is significant and telling of the rapport built between our Community Coordinators and the members.

- **97% of members in the program** indicated that their experience with SFHP Care Support was helpful. This response rate indicates that members found the Community Coordinators and the CBCM program effective in meeting their needs.

Key Findings: Health Services Utilization

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- Evaluation found **statistically significant fewer long inpatient visits** in the treatment cohort compared to the comparison cohort.

- Evaluation found **statistically significant higher primary care visits** in the treatment cohort compared to the comparison cohort.

- Evaluation found no improvement in ED visits between treatment and comparison cohorts

Graph Orientation

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Statistical Significance:

We used Poisson regression model and controlled for age and prior health service use.

1. There is a high degree of individual variation, which makes it more difficult to detect differences between cohorts
2. The model detects if there is statistical significance between the treatment and comparison cohorts
3. The treatment and control groups were not exactly the same in the pre- and post-periods, so this difference is accounted for in the model

Outcome measures:

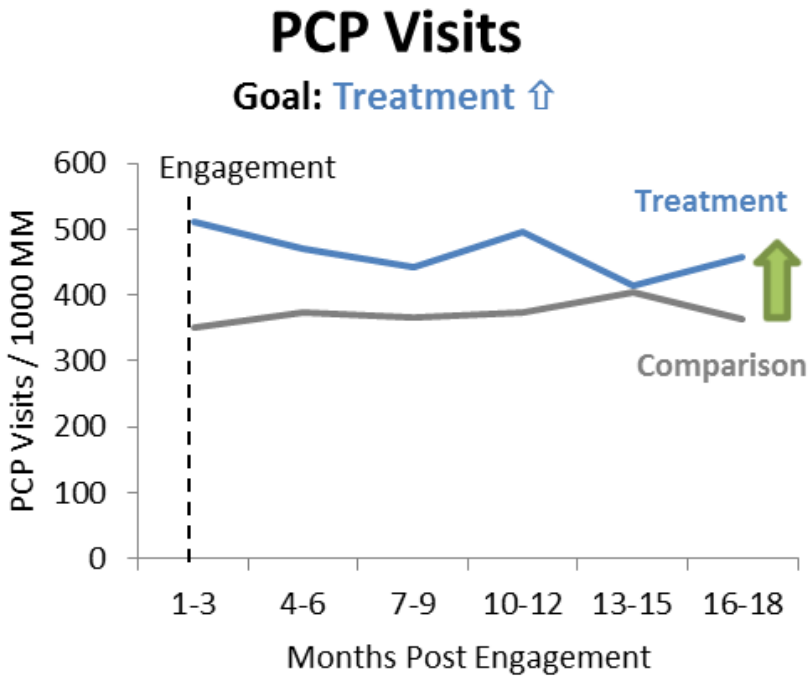
Our outcomes are reported as rates per 1000 member months, as is standard practice in health care analytics and public health reporting.

$$\frac{\text{\# of Visits}}{\text{\# of Member Months (MM = total members enrolled each month over the reporting period)}} \times 1000$$

The number of visits (e.g. ED Visits) is divided by “member months”, which is standard practice to normalize utilization counts by the number of individuals contributing to the count each month. This allows us to compare utilization measures of different size populations.

The resulting calculation is multiplied by 1000, as is standard practice, to make interpretation easier.

PCP Visits



The green arrow represents that PCP Visits were **significantly higher** for the treatment group.

This is a **statistically significant** difference between the treatment and comparison cohorts according to the Poisson regression model.

Long IP Admits

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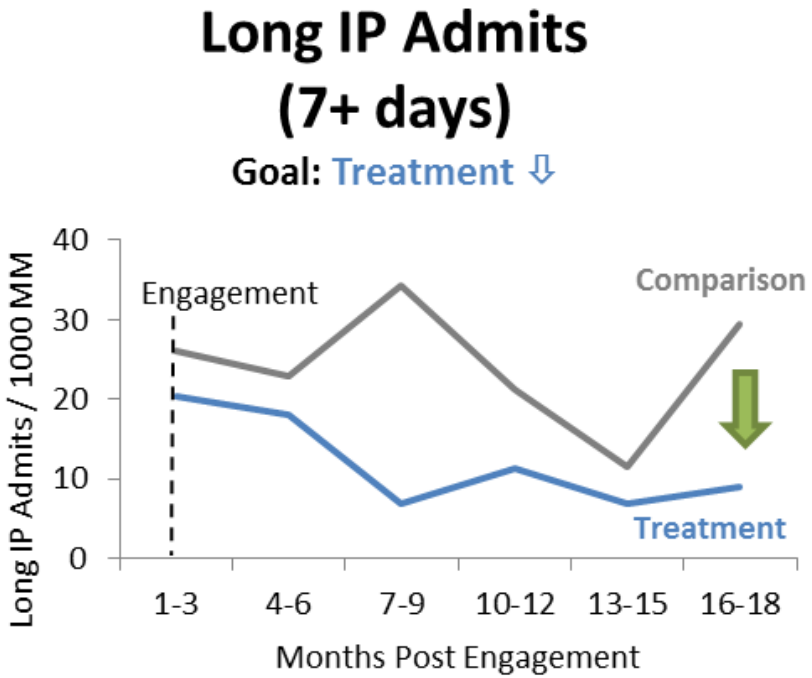
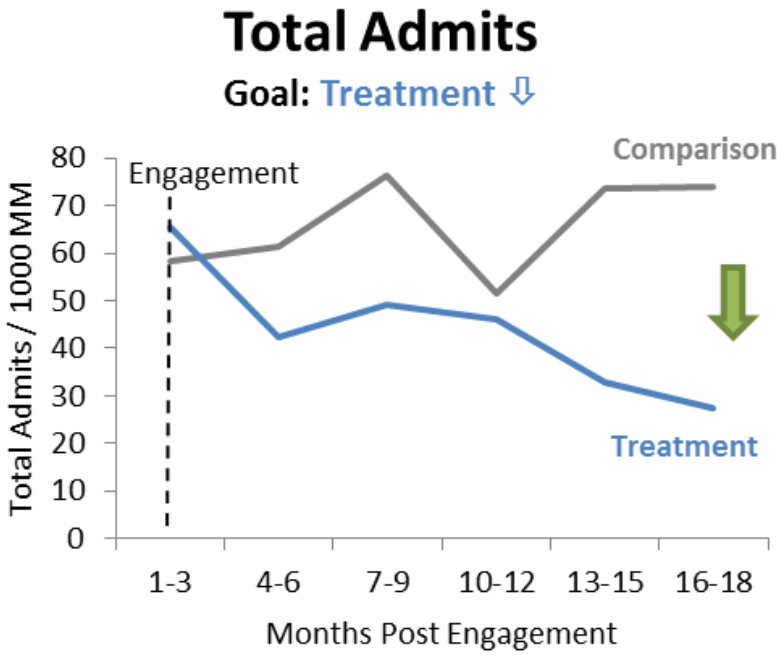


The green arrow represents that Long IP Admits were **significantly lower** for the treatment group.

This is a **statistically significant** difference between the treatment and comparison cohorts according to the Poisson regression model.

Total Admits



The green arrow represents that Total Admits were lower for the treatment group, though this difference is not statistically significant according to the Poisson regression model.

Total Bed Days

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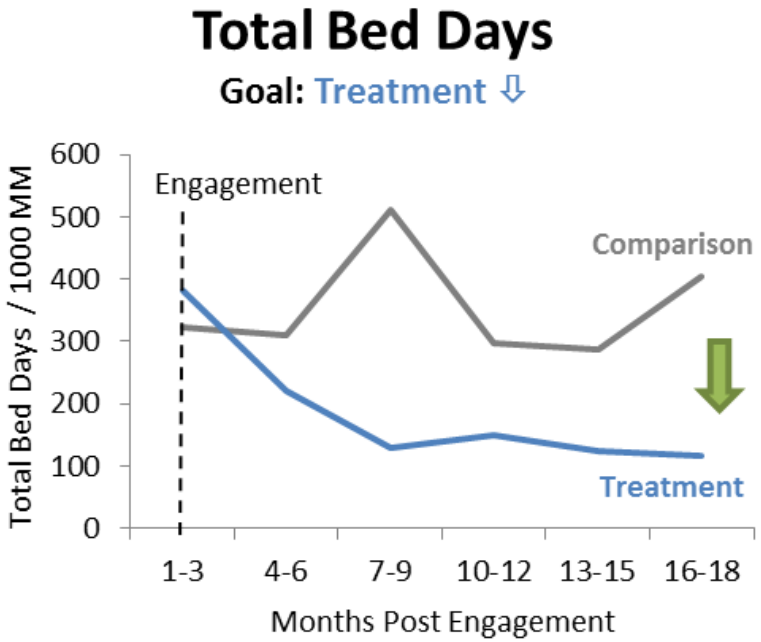

The green arrow represents that Total Bed Days were lower for the treatment group, though this difference is not statistically significant according to the Poisson regression model.

ED Visits

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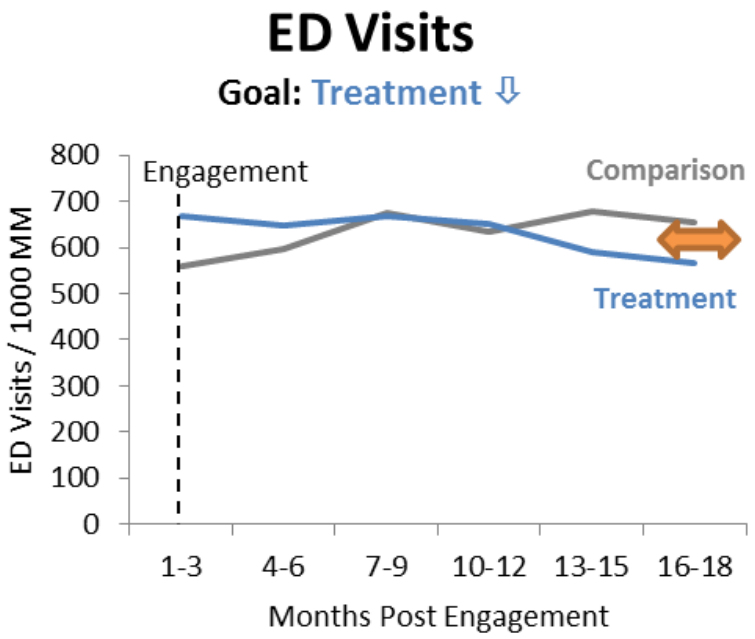

The orange arrow represents that ED visits were similar for the treatment and comparison groups.

Program Summary: Lessons Learned

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- The CBCM program interventions have a favorable impact on health services utilization of high utilizers
  - *Targeting the right group of high utilizers is key. Our program intervention was most effective for high utilizers with a history of hospital admissions.*

- Programs' financial impact should focus on reducing cost related to episodic health services utilization, and should account for increase cost of beneficial health services utilization spending.
  - *Overall 'cost savings' may not be achievable.*

Program Summary: Lessons Learned

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- Data collection and modeling for this type of program evaluation are difficult
  - *Important to have a large sample size and at least 18 months of data to better evaluate effects of interventions*

- Primary components of CBCM program (target population, staffing structure and primary outcomes) are being replicated by the Medi-Cal Health Homes Program benefit launching in July 2018.
  - *SFHP provided recommendations & feedback to DHCS throughout development of the HHP concept paper.*
  - *Based on SFHP's work with the CBCM program SFHP was chosen as a pilot county for HHP.*
  - *Additional funding from grants, such as the CHAMP grant, should be utilized to compliment this new benefit by funding costs such as; iphones, ipads, and supplemental clinical and programmatic staff for evaluation purposes*

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Thank You

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Questions?