Healing Meals
COMMUNITY PROJECT

Nourishing Newborns Meals Program Synopsis

The Nourishing Newborns Meals Program was preceded by a needs assessment of the Hartford CT region, specifically underserved communities also referred to as "food deserts". Research has widely shown that secondary to multiple social drivers, women in these communities that are pregnant often give birth to babies preterm and underweight. These women often also struggle with post-partum depression and gestational diabetes.

The purpose of this program was to make an impact in the health and wellbeing of some of these women living in these communities. We partnered with two groups, the Maternal and Infant Outreach Program at the City of Hartford (MIOP) and the Hispanic Health Council. Our partners were responsible for identifying women that would be a good fit for our meals program. Specifically, they were tasked with choosing women that were pregnant in their second trimester and from a low-income home.

Our direct contact with the women in the program and their families was limited because of communication challenges. Most of our information about the women came from our partners who met with the mothers monthly or bimonthly.

Some of the women chose to receive meals for some of their family members as well. The meals program was intended to be from the mother's second trimester through the birth of their baby until the baby was two months old, about an eight-month meals period. The women received weekly meals that were precooked and made from organic, nutritious, whole foods free from gluten, dairy, soy, and processed ingredients. These meals were part of our general meals program menu. Contact with the women was attempted throughout the program by our Client Team with the goal of checking in and discussing the meals and basic nutrition. Unfortunately, contact was mostly unsuccessful. Some of the women continued until after the birth of their baby. Many of the women dropped out of the program after a shorter period of time.

We are very fortunate to be largely grant and private foundation funded. Over three quarters of our clients receive our meals for free or at a low sliding scale. Though we have served many low-income homes since our beginning, this program was Healing Meals' first real foray into supporting underserved communities. Through the program, we discovered a lot about how our general programming meets the needs of some but not all individuals. For many of these mothers, we experienced struggles with language, literacy, and basic knowledge of wellness that many of our prior clients had not dealt with. In fact, limited access to fresh foods was a challenge that we did not expect. For some of the mothers in the program, they were unfamiliar with the food that we provided, not only because of

limited cultural relevancy, but also because the meals included an array of vegetables. On more than one occasion, we had a mother claim that she was not a vegetarian (note: our meals are not vegetarian but do include a lot of vegetables).

In addition to the meals being challenging for some of the mothers in the program, we also discovered that our wellness and nutrition education is largely inaccessible to many underserved families.

Another challenge that we did not predict was delivering the meals. Our volunteer Delivery Angels struggled repeatedly with delivering meals to many of the mothers in the program. Often, the mothers were not home or asleep, though contact via texting was attempted prior to delivery and we requested that our partners remind the families as well. x

The program evaluation report that follows this synopsis was comprehensive. Our program evaluation team included two individuals from Central Connecticut State University, Dr. Jake Werblow and Dr. Aram Ayalon. The report included a quantitative analysis of our surveys that inquired about daily wellness and food habits; consumption of healthy food like vegetables, fruits, whole grains, and legumes; and consumption of processed food. The quantitative analysis also included shared health data from our partners including incidence of gestational diabetes and post-partum depression in the mothers as well as infant birth information such as birth weight and if the baby was born preterm. In addition to the quantitative analysis, the team also performed a qualitative analysis that involved multiple interviews with some of the mothers that responded to inquiries as well as some of our partners and some of the involved people on our client and programming team.

You will see from the program evaluation report that the impact was varied. For the mothers that stayed in the program, they largely reported an improvement in their health and wellbeing, most of the reported births were at end of term, and most of the babies were born at a healthy birthweight. Also, there was limited incidence of post-partum depression.

Though retention in the program was limited because of the various listed challenges, in our eyes, this program was a success largely because of the learning that we gained and the impact we were able to have with the mothers that stayed in the program.

Since the completion of the Nourishing Newborns meals program, we have initiated a new prenatal meals program in January 2024 partnering with the Women's Ambulatory Health Services of Hartford Healthcare. For this program, we have revised the criteria to include women that are pregnant in their second and early third trimester, living in low-income households, diagnosed with type II or gestational diabetes, and 'receptive to change' based on the opinion of our partners. These last two criteria which are new to this program

have already shown to be helpful in identifying women that are more committed to the meals program. Also, since this newer program has begun, we have expanded our own team to include a bicultural Spanish-bilingual Community Liaison to help bridge the gap for our families with language, literacy, and familiarity. We are hopeful with this new programming to be even more impactful!

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External Program Evaluation of Healing Program for Expecting Mothers and Families

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ABSTRACT

This is a mixed-methods study of a pilot program that took place during the 2022-2023 period where *Healing Meals Community Project (HMCP)* contracted with two agencies in Hartford to provide food at no cost to pregnant women living in low-income households. The goal of the assessment was to examine whether the program achieved its goals; to describe the challenges and successes of the program; and to document what participants suggested should be done to improve the program. Participants' surveys and interviews were conducted. Although the program participants experience high attrition, results at 12-weeks suggest that the expecting mothers were highly satisfied with the healthy meals program and that their program participation was associated with healthier eating habits and overall wellbeing for both the mother and their newborn. Out of 26 babies birthed, 88.5% were born at a healthy birthweight – only a pair of twins (4.3 and 4.8 oz) were born underweight, and one baby was born slightly overweight (9.2 oz). Serving urban and poor communities with the majority from a Hispanic, Spanish speaking community with diverse culinary traditions, creates unique challenges to the model used by HMCP, yet all participants in this study agreed that it contributed to pregnant women's health and the health of their babies.

About HMCP

Since 2016, HMCP has operated as a 501(c)3 organization, and it is currently located in Simsbury, CT. HMCP operates with a large network of local volunteers to assist in the preparation, cooking, packaging, and delivery of organic meals to individuals and families dealing with a health crisis. According to its website, "We cook for the entire family for three months. Uniquely, all our meals are prepared by youth volunteers working alongside our Adult Mentors and Executive Chef. These delicious and nutritious meals are delivered by our volunteer Delivery Angels."

RESEARCH METHODS

Quantitative Sample and Methodology

In this program evaluation, the target population to receive the healthy meals program were expecting mothers (i.e., pregnant women) living in the city of Hartford, who qualify as low-income as defined by their enrollment in the State of Connecticut's Husky Healthcare Plan. Survey data related to participants' food intake, lifestyle, and healthy habits were collected at three stages of time (intake, 12-weeks, and at 24-weeks) via a HMCP survey facilitated by case workers from the City of Hartford and the Hispanic Health Council. Additionally, clinical data related to pregnancy / maternal information intake, and birth, were collected from case workers from the City of Hartford and the Hispanic Health Council. The pregnancy / maternal surveys gathered demographic data, information about the infant's birthweight and number of weeks gestation at birth, whether the mother suffered from postpartum depression, and whether the mother had gestational diabetes. 70% of participants in this study were referred by the City of Hartford; 30% were referred by the Hispanic Health Council.

The expecting mothers who participated in the healthy meals program began the program at various stages of their pregnancies, within their second trimester of pregnancy. However, most expecting mothers started the program during the first half (< 20 weeks) of expectancy. Food was delivered to all participants once per week, on Thursday mornings or Friday evenings. 53% of the women lived in households with three people or more receiving meals.

Qualitative Sample and Methodology

The staff of HMCP provided a list of internal staff involved in the prenatal meals program as well as staff from community agencies that collaborated on the project. In addition, they provided a spreadsheet with a list of the forty-six clients who participated in the program. Three staff members of HMCP who were involved in various aspects of administering the prenatal program were interviewed as well as five staff members, including both administrators and case workers from both the City of Hartford and the Hispanic Health Council. Dr. Ayalon sent emails to all clients requesting participation but received no response. Following the lack of response, Dr. Ayalon then conducted phone calls to clients who participated in the program for at least 15 weeks. After multiple phone calls, Dr. Ayalon was able to interview four clients – one from the Hispanic Health Council, and three from the City of Hartford social agency. One of the clients spoke only Spanish, so a translator was utilized to conduct the interview. Table 1 describes the number of weeks the four interviewees participated in the program, the agency that served them, and the number of food servings they received (based on the number of people living in their households). Note that the evaluation report would have benefited from interviewing clients who either dropped out or received only brief service. However, the evaluator, despite several attempts, was not able to interview these individuals.

Table 1.

Background Information of HMCP Clients Interviewed (Qualitative)

Client ID	Weeks in the program	Referred by Agency	Number of meals delivered / week
#1	25	City of Hartford	3
#2	21	Hispanic Health Council	2
#3	19	City of Hartford	4
#4	24	City of Hartford	4

RESULTS

Quantitative Results

At intake, data from the City of Hartford and the Hispanic Health Council was collected from 32 expecting mothers, 33% were aged between 22-25 years old. The oldest participant in the program was 40 years old. All participants had access to healthcare; 93% were on the Husky Plan. 74% of participants stated that at least one other person in their household would also be receiving meals. And 24% of the participants said that at least 3 children under 18-years-old living in the home would also be receiving the meals.

Most of the expecting mothers who participated in the program faced their own health challenges during their pregnancy. 60% were diagnosed with at least one form of chronic disease during their pregnancy; 20% were diagnosed with diabetes and 40% were diagnosed with another health challenge ranging from: mental health, anemia, high blood pressure, etc. 65% of the expecting mothers received services from Hartford Hospital, 14% from St. Francis, and the remaining 21% from UCONN or another medical center. Of note, 13% of participants stated that they had an allergy to fish / seafood.

All expecting mothers reported that their annual gross household income was less than $61,000. Nearly half reported that their annual gross household income was less than $21,000 and that three or more other people lived in their household. Given that, according to scholars at MIT, an annual household income of $21,000 is nearly 4 times less than the living wage for a family of two adults and three children living in Connecticut,[1] it is clear that most of the families participating in this program faced extreme financial hardship.

In terms of race / ethnicity, 29% of the expecting mothers stated that Spanish was their primary home language. 67% of identified as Latino/Hispanic, and 27% identified as African American.

Perceptions of Food Accessibility and Health: Intake to 12-Weeks

The HMCP program was offered at no cost to the expecting mothers for 24-weeks, but there was a significant drop in participation rates and survey data collected during this time period. Of the

[1] https://livingwage.mit.edu/states/09

initial 32 participants, survey data related to food intake, lifestyle, and healthy habits were only collected for 15 of the expecting mothers at 12-weeks, and only a single-case at 24-weeks. This amount of missing data is a substantial limitation to this program evaluation and will be discussed in the conclusion of this report.

In terms of positive gains from intake to 12-weeks, the expecting mothers reported that they were nearly six times more likely to buy USDA certified organic foods (from 7% at intake to 43%), 6% more likely to "know how to live a healthy lifestyle" (from 93% at intake to 100%) and 6% more likely to agree with the statement "It is important to feel connected to others" (from 93% at intake to 100%).

In terms of the resources provided by HMCP at 12-weeks, 71% of expecting mothers agreed that the "The information provided in the *NEW* book is very helpful" and that they "incorporat(ed) the information and activities from the *NEW* Book into my daily activities."[2] In addition, at 12-weeks, 100% of expecting mothers agreed with the following statements: "I intend to continue to follow the healthy eating habits that I have learned during this meals program", "I believe that eating healthy meals during this program has supported my physical health" and "…mental wellbeing," and that "I have felt more connected to a caring community" during the time of the program. This shows that the HMCP program attributed to the expecting mothers having a positive self-perception of their healthy eating habits and their physical and mental health.

On the other hand, not all trajectories from intake to 12-weeks were positive. At 12-weeks, 85% of the expecting mothers agreed with the statement "my body feels better when I eat nourishing foods." This was a 11% decrease from intake. Although the survey did not measure what may have led to this decrease, it could be related to the complexities of the health challenges that several of the women faced during their pregnancies. Additionally, at 12-weeks, there was a 6% decrease (from 93% down to 85%) in the percentage of expecting mothers who agreed with the statement "my eating habits support good health," and a 15% decrease (from 100% down to 85%) in the percentage of expecting mothers who agreed that "I am confident I can cook a meal from scratch." These findings suggest that once the women began receiving meals and learning

[2] The NEW Book is a book published by HMCP and offered to all clients in the healthy meals program. The book provides education on nutrition and wellness.

more about nutrition and healthy eating habits through the *NEW Book*, they may have developed a more accurate perspective on the work required to prepare such meals for their families. At 12-weeks, the expecting mothers were also twice as likely to agree with the statement "It is difficult for me to find fresh fruits and vegetables in stores where I shop."

Table 1.
HMCP Prenatal Cohort: Perceptions of Food Accessibility and Health

	Intake	**12-weeks**	**24-weeks***
My body feels better when I eat nourishing foods.	96%	85%	--
I tend to buy USDA certified organic foods for my family.	7%	43%	--
I understand the impact of my eating habits on my physical health.	100%	100%	--
My eating habits support good health.	93%	86%	--
I am confident I can cook a meal from scratch.	100%	85%	--
I know how to live a healthy lifestyle.	93%	100%	--
I practice activities in my life that give me a sense of wellness.	85%	86%	--
The information provided in the *NEW* book is very helpful.	--	71%	--
I incorporate the information and activities from the *NEW* book into my daily activities.	--	71%	--
It is difficult for me to find fresh fruits and vegetables in stores where I shop.	7%	14%	--
I intend to continue to follow the healthy eating habits that I have learned during this meals program.	--	100%	--
I believe that eating healthy meals during this program has supported my physical health.	--	100%	--
I believe that eating healthy meals during this program has supported my mental wellbeing.	--	100%	--
During my time receiving healthy meals, I have felt more connected to a caring community.	--	100%	--
It is important to feel connected to others.	93%	100%	--
It is important to take time to focus on my mental health.	100%	100%	--

*Insufficient data (n = 1) to present cohort comparisons.

Perceptions of Food & Beverage Consumption: Intake to 12-weeks

In terms of food consumption from intake to 12-weeks, participants reported that they were nearly twice as likely to eat fresh fruit (from 57% at intake to 100%), about as likely to consume the same number of vegetables, 20% less likely to eat cookies or other white flour / white sugar baked goods, and 6% less likely to consume sweetened drinks like fruit juice, sweetened ice tea, or coffee. This suggests that the expecting mothers developed some healthier eating habits during the program.

Not all trajectories, however, indicated healthier outcomes for the expecting mothers throughout the program. For example, at 12-weeks, expecting mothers were nearly six times more likely to report that they drank sweetened or diet soda (from 7% at intake to 43%), twice as likely to consume energy drinks (from 7% at intake to 14%), and more than twice as likely to eat fast food (from 21% at intake to 57%) and deep-fried foods (from 21% at intake to 43%). This is an interesting trajectory to consider, perhaps indicating that the participants were more honest about their own eating habits at 12-weeks after establishing relationships with the case workers collecting the data. Nonetheless, nearly 60% of the expecting mothers reported that their consumption of fruit, beans and whole grains, and vegetables increased since receiving healthy meals.

Table 2.
HMCP Prenatal Cohort: **Perceptions of Food & Beverage Consumption**

	Intake	**12-weeks**	**24-weeks***
I ate fresh fruit at least 3-4 days last week	57%	100%	--
Over the last three days, I ate at least 3-4 servings of vegetables	56%	58%	--
I drink Sweetened or diet soda (like Coke or Pepsi) at least 2-4 times per week	7%	43%	--
I drink Energy drinks (like Red Bull) at least 2-4 times per week	7%	14%	--
*I drink o*ther sweetened drinks like sweetened fruit juice, sweetened iced tea or coffee at least 2-4 times per week	35%	29%	--
I eat cookies or other white flour / white sugar baked goods at least 2-4 times per week.	50%	29%	--
I eat fast food (like Wendy's, Taco Bell, Panda Express, KFC, McDonalds) *once a week.*	21%	57%	--
I eat deep fried foods (like French fries, fried chicken) *at least 2-4 times per week.*	21%	43%	--
My fruit consumption increased since receiving healthy meals.	--	57%	--
My beans and whole grains consumption increased since receiving healthy meals.	--	57%	--
My vegetable consumption increased since receiving healthy meals.	--	57%	--

*Insufficient data (n = 1) to present cohort comparisons.

On a scale of 1-10, ("10 being best"), 85% of expecting mothers rated HMCP a 10/10 at 12-weeks. Some of the reasons for rating the program so highly was "healthy option of eating, especially the nourishing broth", "The food is good and the notes sent with order. Also, the timely fashion of the deliveries made," "Not having to worry about what to cook, eating healthy last minute." And "The food is very well prepared and the cards from the helpers always brighten my day."

Although the expecting mothers were invited to participate in the program 8-weeks following birth, 52% of the expecting mothers exited the program before giving birth. Nonetheless, the data available suggest there were several positive health outcomes of the babies at birth.
A highlight of the birth results includes:

- Only one mother out of 36 participants, or 2.7%, gave birth pre-term (<37 weeks).
- Eight out of 26 participants (30.7%) were diagnosed with gestational diabetes during their pregnancy.
- Four out of 30, or 13%, of expectant mothers were considered to have depression, as indicated by a depression scale score of 10 or more. However, all women were significantly less depressed after delivery of their child.
- Five out of 17 (29.4%) continued to receive meals up until 2 months post-delivery, and 3 out of 17 (17.6%) continued to receive meals up until 4 or five months postpartum.
- Out of 26 babies birthed, 88.5% were born at a healthy birthweight – only a pair of twins (4.3 and 4.8 oz) were born underweight, and one baby was born slightly overweight (9.2 oz).

Lilly: A Single-Case Study

Since data are available for only one participant at the 24-weeks of the program, we present a single-case study of Lilly (pseudonym), an expectant mother, African American, and resident of Hartford, living with three other family members who received healthy meals. Tables 5 and 6 indicate an overall positive trajectory for Lilly. Specifically, on 100% of the survey items collected over the course of 24-weeks, Lilly indicated an improvement or an ability to maintain her health. Specifically, Lilly went from never eating fresh fruit at intake, to eating fresh fruit 3-4 times per week after starting the program. Her consumption of beans and whole grains also increased throughout the program. Lilly also became more confident in her ability to "cook a meal from scratch" and "live a healthy lifestyle."

Table 5.

Single-Case Study: Lilly's Perceptions Food Accessibility and Health, Over 24-Weeks.

	Intake	**12-weeks**	**24-weeks***
My body feels better when I eat nourishing foods.	Agree	Strongly Agree	Strongly Agree
I tend to buy USDA certified organic foods for my family.	Disagree	Strongly Agree	Strongly Agree
I understand the impact of my eating habits on my physical health.	Agree	Strongly Agree	Strongly Agree
My eating habits support good health.	Agree	Strongly Agree	Strongly Agree
I am confident I can cook a meal from scratch.	Agree	Agree	Strongly Agree
I know how to live a healthy lifestyle.	Agree	Agree	Strongly Agree
I practice activities in my life that give me a sense of wellness.	Agree	Agree	Agree
The information provided in the NEW book is very helpful.	--	Agree	Agree
I incorporate the information and activities from the NEW book into my daily activities.	--	Agree	Agree
It is difficult for me to find fresh fruits and vegetables in stores where I shop.	Disagree	Strongly Disagree	Disagree
I intend to continue to follow the healthy eating habits that I have learned during this meals program.	--	Agree	Strongly Agree
I believe that eating healthy meals during this program has supported my physical health.	--	Strongly Agree	Strongly Agree
I believe that eating healthy meals during this program has supported my mental wellbeing.	--	Agree	Strongly Agree
During my time receiving healthy meals, I have felt more connected to a caring community.	--	Agree	Strongly Agree
It is important to feel connected to others.	Agree	Strongly Agree	Strongly Agree
It is important to take time to focus on my mental health.	Agree	Strongly Agree	Strongly Agree

Table 6.

Single-Case Study: Lilly's Perceptions of Food & Beverage Consumption Over 24-weeks

	Intake	**12-weeks**	**24-weeks***
Approximately how many days last week did you eat fresh fruit?	Never	3-4 days	3-4 days
Over the last three days, about how many servings of vegetables did you eat?	7 or more	5-6	7 or more
Each week, I drink Sweetened or diet soda (like Coke or Pepsi)	Never	Never	Never
Each week, I drink Sports drinks (like Gatorade)	Daily	Never	Never
*Each week, I drink o*ther sweetened drinks like sweetened fruit juice, sweetened iced tea or coffee	Once / week	Never	Once / week
Each week, I eat cookies or other white flour / white sugar baked goods	Never	Never	Never
Each week, I eat fast food (like Wendy's, Taco Bell, Panda Express, KFC, McDonalds)	Once / week	Never	Never
Each week, I eat deep fried foods (like French fries, fried chicken).	Never	Never	Never
My fruit consumption increased since receiving healthy meals.	--	Stayed the same	Increased
My beans and whole grains consumption increased since receiving healthy meals.	--	Increased	Increased
My vegetable consumption increased since receiving healthy meals.	--	Stayed the Same	Stayed the Same

At the end of 24-weeks, Lilly strongly agreed with the statement, "Receiving *healthy meals* for an additional 12 weeks was a benefit to my health". In addition, when asked, "On a scale of 0 to 10 ("with 10 being best"), how likely are you to recommend HMCP services to a friend or family member in need?" She rated the program a "10/10" because she liked the "different food varieties and the healthy meals."

Missing data

Of the initial 32 participants, survey data related to food intake, lifestyle, and healthy habits were only collected for 15 of the expecting mothers at 12-weeks, and only a single-case at 24-weeks. This degree of missing data is a substantial limitation to this program evaluation and points to the complexity, transiency, and challenge of providing services to this population in need. In the future, it is suggested that HMCP holds exit interviews with non-program completers to better understand why participants do not complete the program. If the causes of attrition are identified, HMCP may be better able to help this population complete the program in the future.

Qualitative Results

Before Prenatal HMCP Program (PHMP) participation

The four clients who participated in the program indicated that their eating habits involved a lot of snacks, fast food, and foods with high level of sugar and fried foods. All interviewees were Latina and their typical food included pork, rice, beans, and potatoes in fried form. All four clients had access to a food truck that provided additional food once a month and most could get food supplements through the state-sponsored WIC program aimed at supplementing food for low-income women and children. However, the WIC program was not available to one of the women who was undocumented. One client suffered from being overweight and pre-diabetic and another one suffered from weight loss due to postpartum depression. Another client described her eating habits, “I had a diet where I ate and drank a lot of sugar. And I also ate a lot of fat - unhealthy fats.”

Joining Prenatal HMCP Program

Most of the clients heard about the prenatal healthy meals program from their case workers but one woman heard about the program from her aunt. The case workers, according to the women, suggested to them to join the program because it was good for their health. One of the case workers further explained that she told them that the program was for "moms who were having health issues, like hypertension or diabetes, stuff like that."

Clients-Prenatal HMCP Contact

The clients described how they received food delivery every week brought by different persons usually – something that perhaps impeded on more effective delivery communication as one client recounted "You never had a particular contact with a person who was the one who distributed the food." The clients usually received text messages on the phone that the delivery is on its way. Most also recount a person from HMCP (HMCP Client Liaison) who contacted them to check if they liked the food and to provide guidance about consuming healthy food. The HMCP Client Liaison described her role as to emphasize "how important it is to eat healthy, and not only for them, but for their growing baby. And just in hopes that they might change their eating habits;" as well as to "see how they were feeling and also if there was anything we need to tweak about their meals." Indeed, one customer suggested that "It seems that (there was a person who) was interested to know how successful this program was."

The role of the case workers at that point was to help their customers adjust to the new program as one describes,

> At first, they needed like a little bit of an adjustment because our community, where we serve, our community, the type of meals that they have access or the culture is a little bit different, than the healthy, healthy meal.

In addition, the role of the case workers was to translate for clients who spoke little English.

An important aspect of the HMCP Client Liaison contact was to discuss the cookbook and NEW book (HMCP nutrition education wellness book) that HMCP distributes together with the weekly food distribution. Some clients indicated that the NEW book and cookbook was used to educate and instigate conversations about healthy food – "I remember we looked through (the cookbook)…(while in) my country we eat a lot of rice…she was telling me (about the) type of things that you could do instead of using the white rice to do their brown rice…"

Clients' Feedback on Meals

All the clients felt the food was healthy and all had favorites. Some of the most popular foods mentioned were chicken salad w/apples, sweet potatoes, multigrain cookies/bars, pasta, desserts, vegetables, soups, and chocolate chip cookies.

Many of the meals received rave reviews as one client describes, "It was so delicious that people will come into my house…(and say) wow that's smells so good." One case worker recounted the feedback "we've gotten from the clients…enrolled in the program were 90% positive."

Not all foods were well taken. Clients' food concerns were focused on foods that were new to them. Some described these as "weird" and as one client said: "I know a lot of (the food)…I wouldn't have eaten or really knew about." Another client stated, "they got little bars that they made… the taste was different." One case worker provided more details about the difficulties some customers had, "They didn't like the texture of it…another stuff that (they) usually complained (was that)…they didn't even understood (sic) the way that it was prepared." Some were "a little bit off or uncomfortable when they saw the meal that… everything (was) mixed (and)…that it was…not separated." Some mentioned that the food they were used to eating in their culture was different than the food delivered by HMCP. For example, one client who is Cuban said, "we call everything beans because we are Cubans, so we call everything beans (but the food that was served) was actually white Pease."

At the same time new types of foods opened new horizons to the clients. One client commented, "I learned to eat chickpeas, quinoa, purple potatoes, those that they gave me as baked were delicious…how cool as I had not tried this (before)."

Accomplishment and Benefits of the HMCP Prenatal Meals Program

Openness to new healthier foods and preparation. One customer described, "So I tried a lot of new things. I will say, like quinoa and stuff. I would have never tried that before. So, it made me eat healthier…I felt…more energized." Another customer acknowledged: "I tried things that I never tried before and actually tasted good. So, it was surprising." A third customer learned to change her food preparation from frying to baking,

> people always think like fried food is good food because it tastes good, but…nothing…they make…was fried. Everything was baked. I remember the sweet potato was baked and delicious. They had a lot of vegetables in it that when they baked. (Since then) I have been baking the sweet potatoes.

A fourth client summarized what she learned – "(I learned about) fats that are unhealthy, such as processed fats, as well as processed sugars…"

Similarly, one case worker said,

> I like that they were…open to make that change to get healthier. That they were able to even adjust and try to…re-prepare…the meals, like if they need to put a little bit of seasoning into something different…they were open to it and share it with their family.

Another case worker observed, "it opened up the door for our clients that they might be very used to their own ways of eating… it allowed them to kind of venture out and explore different ways of eating healthier eating and how to use healthier ingredients." Furthermore, she observed that the new food, "Opened up that conversation for the clients to be able to explore things…rather than…staying in their little bubble."

Health benefits. Some clients actually felt healthier and had an easier pregnancy. One customer said,

> "Usually when I would eat, I would like go into a food coma and I would (be) knock out. I did not feel that after I would eat the (delivered) food... And this time.. I had more energy. I would be awake and I would be able to do things."

Furthermore, some clients also change the food they fed their babies. One client said,

> I don't give her (my baby) any sugar. I give her a lot of fruit. I give her a lot of vegetables too. I even give her things that I've never tried before that I'm trying now as well, like mushrooms.

A case worker provided a vivid description of the health benefits of the food on her clients,

> The outcomes with the baby, they were good…pretty much had healthy babies… moms who delivered using this program (their) babies were 7 pounds and up. (One of the moms) her testing for diabetes came out clear. She didn't gain as much weight. She kept her figure after she delivered. So yeah, (the program) was a huge impact (on) the health for both…the mom and baby.

Reduced stress after pregnancy. Some customers acknowledge that having prepared food after their baby was born was helpful as one recounted, "First few months (after the baby was born) I didn't have to worry. I have this food, I heat it up and eat it. It helps very much during the first few months (of the baby)." Similarly, an agency administrator commented:

> I like the concept that the meals will be dropped off at the house, so the moms don't have to worry about going and pick(ing) them up and…the moms already had so much to do.

Another case worker commented:

> It was also like a stress reliever especially when you're trying to do breastfeeding. Moms (during) postpartum, they (have a) lack of sleep. They're tired... They hardly have enough time to run errands and do stuff around the house.

Interagency cooperation. Since the prenatal healthy meals program was the first program to link HMCP with social work community agencies, the communication was celebrated as groundbreaking in agencies working with one another instead of alone or against one another. One agency administrator said,

> Most importantly is just the agency finding each other. I think it's very important. I think it's very important that the work continues… community agencies don't really tend to work alongside each other, but we tend to compete for the same grants… We partnered up. We really just want to target the same demographics.

Community agencies administrators described the communication with HMCP as effective, while HMCP staff had reservations about the communication effectiveness (see more in the challenges section).

Challenges

As described before clients had issues with the food's taste and seasoning, which many of them were not used to. There were other challenges that prevented the full implementation of the program.

Clients' challenges. Some clients did not speak English but mostly Spanish (estimate 80% were Spanish speaking with various degrees of English fluency) which had an impact on communication and delivery of food. The age of the clients and number of children they had was an important factor in the clients' tendency to fully participate in the program. Younger clients tended to participate less in the program as the HMCP Client Liaison described, "Sometimes there were some very young moms who did not (like) our food (because it) is not as ethnic maybe as they might want it to be. And so, they were having a hard time." Older customers tended to participate more as one case worker indicated that, "moms who had more than one child, they tended to take a program more seriously." Finally, some clients were reluctant to provide honest feedback. Clients often were reluctant to complain about the food served as one case worker suggested,

> You're trying to help me with this, and you're trying to give me this opportunity…for free and everything. I don't want to look ungrateful by saying I don't like this or I would like this to be this way or differently.

Pregnancy stage when joining the prenatal meals program. The customers joined the prenatal meals program at different stages of their pregnancy which then had an impact on the degree to which the program could have an influence on the mom's health. HMCP Client Liaison described, "They might have come in at their beginning of their pregnancy, the middle, sometimes towards the end." One agency case worker elaborated why this would happen,

> By the time they become clients of ours, they're already at the end of their second trimester and going into their third. We usually don't find out that they're pregnant when they're early on in their pregnancy. So, we kind of had a difficult time finding clients that were suitable for the program.

The result was, according to the HMCP Client Liaison was that,

> It felt like they (pregnant clients) didn't really have time and the buy in and education as to why their caseworker was putting them in the program and how it was really beneficial.

Delivery challenges. A common problem was that clients were absent when food deliveries arrived. One agency administrator explained, "Sometimes the moms were not home. You know for the food to stay fresh and edible, especially in the summertime, they could not leave it outside…" There were various reasons listed for clients missing deliveries such as: being at work, stuck in traffic or in public transportation, falling asleep. One of the HMCP staff reflected on why the delivery practices of HMCP faced difficulties in this program,

> We definitely had issues with clients not being home for the delivery…Unlike our normal program, they weren't really sick, they were just pregnant, so they were working still and then therefore not home to receive the delivery… maybe they had so many other things going on in their life.

Another barrier to effective food delivery was that those who delivered the food weren't familiar with Harford and faced more challenges with parking, lack of lighting at the evening, and access to buildings as a HMCP staff described,

> Hartford is an unknown to many of them (HMCP Delivery Angels). There are more challenges like getting into a building, there's more challenges finding parking…day light savings had a big impact on it because nighttime versus dark made a difference.

Often HMCP Delivery Angles had to use a two-member crew to deliver so "one stays in the car while the other one goes in (because) parking is an issue." They also had difficulties locating safe places to leave the food coolers."

HMCP contact with Hartford agencies. HMCP staff felt that the communication between their organization and the two agencies they worked with was challenging. One HMCP staff reflected,

> Maybe the City of Hartford and Hispanic Health Council weren't the best bet for us as far as referral partners. And maybe didn't prepare the clients as much as we would have liked to make sure that they were on board with receiving these meals and why they were receiving the meals and were they going to be reliable clients or are they going to be home.

This staff member also felt there was too much caseworkers' turnover which hampered the program.

Recommendations

Beginning of service. All interviewees agreed that in order to maximize the impact of the prenatal meals program, pregnant women should be enrolled in the program as soon as they find out that they are pregnant.

Food selection. Some clients suggested to include more Latino-relevant seasoning as one client suggested,

> I would just add a little bit more seasoning to certain things like the chicken, because I'm Puerto Rican. Like we grew up with Sazon and Adobo like that… it could be sent on the side.

Another agency staff would have liked to have more changes in the menu, "I would definitely look into maybe switching up the menu, maybe more items that families eat due to their cultural needs, just so we don't have a lot of wasteful foods." A third agency staff member suggested there were too many soups offered, "Not making too many of the soup…Maybe come up with something different instead of soup." And yet another agency staff suggested surveying clients about their cultural food and using it to combine new and familiar foods.

Food delivery. Some clients and case workers suggested a more flexible food delivery schedule combining morning and afternoon delivery times and more delivery days. One case worker suggested that one alternative to home delivery is, when possible, for clients to come and pick up the food, "So I would say have the moms that want the food to come out and get it and then have it already prepared."

Expanding HMCP prenatal meals program clientele. Clients suggested that many potential clients of the program never knew about it so it could be advertised in public spaces such as daycares, doctors' offices, hospitals, parks, WIC offices, bus-stations, and churches. Agency staff felt HMCP was a very valuable program and should be expanded due to the increased number of teenage prenatal clients and many more struggling families. Finally, one client suggested single fathers would also benefit from such a program,

> They (could) actually offer it to single fathers…there's a lot of fathers (who) have kids themselves. I know a lot of single fathers that would love it.

Communication among agencies and clients. Agency staff suggested that they should experience the program themselves first before recruiting clients as one said,

> (I would like to) taste them myself and see it, what it is that they're receiving, so that if they ever called and asked, like, what is this what you guys are sending me? I can tell them, actually, you know, I tried it myself. It was really good. Keep your mind open to just trying it out…

Another agency staff would have liked the case workers to know more about how the meals are prepared. Similarly, HMCP staff suggested more contact between them, case workers, and clients. One such suggestion was,

> Maybe have even a personal meeting…with their case worker and the potential clients to explain it to them in depth and see that they want to be on board and you know give them a sample menu and tell them certain things about it.

Another agency staff member suggested weekly group meetings,

> Maybe doing…a weekly class and showing the clients…this is the food that you're receiving…this is what you can do with that food…, showing the clients the different recipes that they could make.

In the same vein, a HMCP staff suggested monthly nutrition education sessions online with clients.

Choice of clients. HMCP staff felt that their organization needed to use better ways to choose partners; one suggested,

> We've been more careful with who we've chosen to pair with more secure partnerships and partnerships that are really going to be able to support us and have done the vetting of their patients and what not.

Agencies' staff all expressed a desire to reinstate their involvement with the HCMP prenatal meals program.

Conclusion

The HMCP Prenatal Meals Program is an invaluable program and unique in the services it provided to pregnant women and their families. All participants who were interviewed agreed that it contributed to pregnant women's health and the health of their babies. Although the program participants experience high attrition - 52% of the expecting mothers exited the program

before giving birth, quantitative results at 12-weeks suggest that the expecting mothers were highly satisfied with the meal program and that their program participation was associated with healthier eating habits and overall wellbeing for both the mother and their newborn. Serving urban and poor communities with a majority Hispanic, Spanish speaking community with diverse culinary traditions, creates unique challenges to the model used by HMCP. Challenges such as finding parking and access to multifamily housing, clientele who are working and are not always present to accept food deliveries, as well as language and cultural differences could be overcome through closer communication between HMCP, its partnership agencies, and the clients.

About the Authors

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