DATE: September 23, 2013

TO: Children and Families Commission of Orange County

FROM: Christina Altmayer, Executive Director

SUBJECT: Final Report for Orange County Alliance for Community Health Research Grant

SUMMARY:
Since the Commission’s inception, the knowledge that tobacco tax funds would be a declining revenue source necessitated the Commission to plan for achieving future results with fewer resources. To this end, Commission staff has aggressively pursued funding sources to maximize strategic investments. In 2010, the National Institutes of Health (NIH) awarded a $998,524 three-year grant to the Orange County community for the development and application of research geared to community based practice and health initiatives. The University of California, Irvine (UCI) was the lead agency for the project; 57 percent of the total award was contracted from UCI to the Commission to manage funds designated for community participation in the project. This agenda item provides a final report on local accomplishments achieved through the federal grant award.

BACKGROUND:
In 2009, the Commission worked with the University of California, Irvine (UCI) and other community partners to develop a responsive proposal to the National Institutes of Health (NIH) for consideration for the “Building Sustainable Community-Linked Infrastructure to Enable Health Science Research” grant opportunity (Attachment 1). The NIH recognizes that in order to maximize the relevance, dissemination, and implementation of health science research for the public, communities must have the opportunity to be actively engaged in formulating research questions; designing, and conducting research; and translating the application of research findings to community-based practice and public health initiatives.

In 2010, UCI was notified by NIH that funds had been awarded for implementation of Orange County’s proposed project. In order to assure that a majority of these funds would be committed to support the infrastructure needed for community collaborative research, UCI and community partners proposed that project funds designated for the community be contracted to the Commission. No Commission dollars were used for a cash match for the project.

Project Scope
In order to meet an information gap in Orange County, the Orange County Alliance for Community Health Research was established. Although the project title was initially referred to as the Center for Community Health Research, project partners changed the name to “The Alliance” since it better reflected the intent to build collaborative partnerships versus a bricks and mortar location.
The Alliance has assisted in promoting connections between community organizations and project partners. The project scope designated for the community was carried out primarily through Community Research Associates (CRA). The NIH established the role of CRA’s as community representatives who are respected community health members or experts with a successful track record in community-based programs and projects. The CRA’s were responsible for and accountable to the community and the collaboration for implementation of the project aims and stewardship of resources. The Commission’s evaluation team has been involved in each of the Alliance’s major activities, specifically as they related to young children.

Last week, the Alliance held a community conference to recognize and celebrate the achievements accomplished over the past three years. Presentations were given by academic and community partners who were funded through the grant to address areas of community need. One Campus-Community Research Project was the evaluation of birth and economic outcomes with MOMS Orange County. This effort will assist MOMS Orange County in being competitive for national funds that require documentation of evidence based/evidence informed results. A summary of the Alliance’s grant accomplishments achieved over the past three years is included on Attachment 2. The summary includes information developed for the poster session for MOMS Orange County and Child Guidance Center which were presented recently at the National Clinical Translational Science Center conference in Bethesda, Maryland. Findings from implementation of the three year project will be incorporated in both the Commission’s program review panels for consideration and related planning processes.

STRATEGIC PLAN & FISCAL SUMMARY:
The project was reviewed in relation to the Strategic Plan and is consistent with the Capacity Building goal to foster a consumer-oriented, easily accessible system of services that is responsive to local needs and achieves results. This agenda item includes no requested funding action.

PRIOR COMMISSION ACTIONS:
- November 2010 – Authorized contracts to receive funds and implement the Federal grant award for “Building Sustainable Community-Linked Infrastructure to Enable Health Science Research”
- September 2010 – Received an update on federal grant proposals and awards, as a financial sustainability strategy
- March 2010 – Received progress report on strategies for securing government, corporate and foundations grants for improving the self-sufficiency of Commission grantees

RECOMMENDED ACTION:
Receive final report

ATTACHMENTS:
1. Federal Grant Project: Orange County Center for Community Health Research
2. Orange County Alliance for Community Health Research Final Report

Contact: Alyce Mastrianni
### Federal Grant

**Project: Orange County Center for Community Health Research**

**Summary of Terms and Conditions**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Orange County Center for Community Health Research</th>
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<tr>
<td><strong>Source of Funding</strong></td>
<td>National Institutes of Health: Building Sustainable Community-Linked Infrastructure to Enable Health Science Research</td>
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</table>
| **Lead Agency** | Dr. Dan Cooper, Pediatrics  
University of California, Irvine School of Medicine |
| **Other Participating Agencies** |  
- California State University, Fullerton  
- Children and Families Commission of Orange County  
- Children’s Hospital of Orange County  
- County of Orange Health Care Agency  
- St Jude Medical Center  
- Community Action Planning Group / UCI Institute of Clinical and Translational Science  
- Other Community Agencies |
| **Focus of Grant** | **Vision:** Community and Academic Health Center working together to develop, implement, and disseminate clinical discoveries that result in improved health status for the diverse communities of Orange County.  
**Mission:** To improve the health and well being of Orange County through collaborative research and supporting sustainable research, dissemination of evidence-based best practices to inform local health decisions. |
| **Project Funding** | $430,896 - UCI designated project funding  
$567,628 - community funding to be contracted through Commission  
$998,524 - total funding for 3 year project |
| **Specific Project Aims** | 1. Establish the Orange County Center for Community Health Research to facilitate sharing of health research information and technical assistance for health research.  
2. Conduct community health research training for community agencies and researchers.  
3. Establish a community forum to develop a community health research agenda for Orange County and link community members with research resources. |
| **Commission Role** | Receive and manage funds designated for community participation in the project. |
| **Fiscal Intermediary - Community Funding** | Subcontracted through Public Health Foundation Enterprises, Inc to administer community funds designated for:  
- Three part-time Community Research Associates  
- Stipends for community agencies to release staff to participate in trainings  
- Technology and equipment to support project aims |
Orange County Alliance for Community Health Research  
*Increasing the community’s access to important health data and research.*  
[www.HealthierOC.org](http://www.HealthierOC.org)

**Final Report**

<table>
<thead>
<tr>
<th><strong>Mission</strong></th>
<th>Improve the health and well being in Orange County's diverse population through collaborative research and by supporting sustainable research and dissemination of evidence based best practices to inform local health decisions.</th>
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<tr>
<td><strong>Purpose</strong></td>
<td>Create an infrastructure in Orange County that will increase the capacity of community organizations and universities to engage in health research partnerships, also known as community-based participatory research (CBPR). The strategy to achieve this purpose was through the development of <strong>three Specific Aims</strong> designed to meet the need for community engagement in Research.</td>
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</table>
| **Aim 1**  
*Facilitate the dissemination of health research information and data and the provision of technical assistance for health research to community agencies by establishing the Orange County Center for Community Health Research Portal* | Accomplishment: Created a centralized clearing house for health research conducted in Orange County.  
The Alliance collaborated with advisory board members to facilitate the dissemination of health research information and date provision through the establishment of the [www.HealthierOC.org](http://www.HealthierOC.org) Web portal. The web portal is a comprehensive site that not only provides information and data on Health Research, especially in Orange County, but also includes a Health Researcher Directory designed to facilitate the ongoing development of Community-Based Participatory Research partnerships.  
Relevance for Commission: The web portal ensures a venue to provide key Commission evaluation reports to the public. Currently posted reports include the Conditions of Children and Healthy Places, Healthy People. |
| **Aim 2**  
*Increase capacity and readiness to conduct collaborative community health research among community agencies and researchers by providing trainings and mentorship in community-based participatory research (CBPR).* | Accomplishments:  
**Training Curriculum, Technical Assistance and Support** – The Alliance has increased capacity and readiness to conduct collaborative community health research among community agencies and researchers through CBPR training and technical assistance provided in two training series and one-on-one consultation from project Community Research Associates. Developed a five – workshop series CBPR training curriculum.  
**Mentor Pairings** – Thirteen academic faculty and community based organization pairings were developed and supported.  
**Health Research Partnership Projects** – Developed through a competitive application process, four funded academic and community health research partnerships were selected that addressed prenatal care, domestic violence, childhood obesity and adult obesity, healthy eating and active living. |
For these projects, two poster presentations from pairings were provided at the National Clinical Translational Science Associations conference in August 2013 in Bethesda, Maryland, and one poster was presented at the Institute on Violence, Abuse and Trauma conference in San Diego on September 8th.

Relevance for Commission: Many of the Commission contractors participated in the Aim 2 opportunities. Copies of posters for Commission contracts include (and are attached):
- Evaluating MOMS Orange County Maternal-Child Health Coordination Project for Improving Birth Outcomes
- Preliminary Findings: Coaching to Decrease Childhood Obesity

<table>
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<tr>
<th>Aim 3</th>
<th>Achievements:</th>
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<td>Develop a community health research agenda for Orange County by facilitating an annual planning retreat and ongoing team building workshops</td>
<td>Engaged the community for input on health priority areas. Developed team building workshops around the 8 priority topics. Workshop participants included representatives from a wide-array of public and private community-based organizations and university faculty. The workshops provided opportunities for researchers and community partners to become familiar with work being done in Orange County. Data highlighted at workshops provided opportunities for community partners to translate data into improved and more targeted practices.</td>
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Relevance for Commission: Both Commission contractors and collaborative partners participated in the team building workshops which included incorporation of efforts into countywide projects. For example:
- Low Birth Weight efforts were incorporated into the 18th Annual Conditions of Children’s Report.
- Overweight and Obesity process identified a small amount of funding to assist in analyzing WIC data across the four Orange County providers to assist in filling a local data gap.
- Child Maltreatment literature review was provided to the Commission and County to assist in the development of the Medical Director for Social Services position.
- Perinatal Depression developed an algorithm for practitioners to use which has a protocol to access and refer pregnant women and new moms.
- Vision Data Sharing developed an algorithm for sharing data across agencies by screening, secondary screening, and tertiary screening.

<table>
<thead>
<tr>
<th>Project Sustainability</th>
<th>Recommended next steps for continuation of the health research infrastructure project in Orange County.</th>
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<tbody>
<tr>
<td>Aim 1</td>
<td>The website will be hosted and managed by the Community Engagement Unit of the Institute for Clinical Translational Science.</td>
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<tr>
<td>Aim 2</td>
<td>The California-Nevada Public Health Training Center has been identified which offers free online community-based participatory research training. In addition, video and PowerPoint presentations from Orange County’s presentations is available on the web portal: <a href="http://www.ochealthieroc.org">www.ochealthieroc.org</a></td>
</tr>
<tr>
<td>Aim 3</td>
<td>The UCI Community action planning group will merge with the Orange County Alliance for Community Health Research and will continue the identified work of the Alliance.</td>
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Evaluating MOMS Orange County Maternal-Child Health Coordination Program for Improving Birth Outcomes
Yuqing Guo1, Pamela Pimentel2, Yvette Bojorquez2, Jared Lessard1, Julie Rousseau1
Jung-Ah Lee1, Michele Silva2, & Julie Vo2
1University of California Irvine Program in Nursing Science and 2MOMS Orange County

Introduction
- In Orange County, 255 pregnant women received home visiting services by Nurse Family Partnership in 2010
- MOMS Orange County modified evidence-based Nurse Family Partnership to integrate a community health promotion strategy
  - MOMS provides prenatal and postnatal home visitation services to an estimated 3,100 at-risk pregnant women in Orange County annually
  - Registered nurses supervise highly trained paraprofessionals who serve as home visitors
  - Pregnant women who need more intensive medical oversight are referred promptly to public health nurses
  - The home visit period has been shortened to one year.

Objective
- To provide evidence about the effectiveness of MOMS Orange County home visitation program on birth outcomes

Methods
- Design
  - Community engaged research
- Secondary data analysis
- Data collection
  - Home visitors collected the data while they conducted home visits during 2009-2010
- Participants
  - 2028 subjects
- Measures
  - Self-reported demographics, prenatal and postnatal assessments
- Analysis
  - Multiple regression models for continuous birth outcomes
  - Controlled for 10 covariates

Results

Figure 1. Association Between MOMS Prenatal Visits and Birth Weight
![Graph showing association between prenatal visits and birth weight] (Birth Weight vs. Prenatal MOMS visits)
The number of prenatal visits significantly predicts birth weight, b=62.20, B=.24, p < .001

Figure 2. Mediation Between MOMS Prenatal Visits and Birth Weight
![Graph showing mediation analysis] (Birth Weight, MOMS Prenatal Education Lessons, MOMS Prenatal Home Visits)
The association between the number of prenatal visits and birth weight was significantly mediated by MOMS prenatal education lessons, Sobel t=4.50, p < .001

Figure 3. Association Between MOMS Prenatal Visits and Gestational Age at Birth
![Graph showing association between prenatal visits and gestational age] (Gestational Age at Birth vs. Prenatal MOMS visits)
The number of prenatal visits significantly predicts gestational age, b=.38, B=.47, p < .001

Figure 4. Mediation Between MOMS Prenatal Visits and Gestational Age at Birth
![Graph showing mediation analysis] (Gestational Age at Birth, MOMS Prenatal Education Lessons, MOMS Prenatal Home Visits)
The association between the number of prenatal visits and gestational age at birth was significantly mediated by MOMS prenatal education lessons, Sobel t=4.50, p < .001

Table 1. Descriptive Demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>% or M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Age</td>
<td>27.80 (6.60)</td>
</tr>
<tr>
<td>Monthly Income</td>
<td>$1,252 (929)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>77%</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>12%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>&lt; High School</td>
<td>44%</td>
</tr>
<tr>
<td>High School</td>
<td>32%</td>
</tr>
<tr>
<td>At Least Some College</td>
<td>24%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td>GA at Entry to Study</td>
<td>19 (8.80)</td>
</tr>
<tr>
<td>Prenatal Visits</td>
<td>3.40 (2.00)</td>
</tr>
<tr>
<td>Prenatal Education Lessons</td>
<td>5.92 (3.76)</td>
</tr>
</tbody>
</table>

Conclusions
- MOMS Orange County maternal-child health coordination program contributes to positive birth outcomes by decreasing preterm and low birth weight births.
- More rigorous research with experimental design and objective data collection is needed to validate the preliminary evidence.

Acknowledgements
This Research supported by Award Number RC4RR031404 from the National Center For Research Resources. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Center For Research Resources or the National Institutes of Health.
Childhood obesity is a rapidly growing epidemic in the United States, with about 20% of children reported as overweight or obese. This study examines the efficacy of Parent-Child Feeding Interaction Therapy (PC-FIT), an intervention using coaching to reduce maladaptive feeding and eating practices causing obesity in children ages 2 to 10. Using a pre-post randomized experimental design, PC-FIT is compared to a nutritional counseling/treatment as usual (TAU) control. PC-FIT utilizes a live coaching intervention to guide parents through a series of tasks that is conducted at a community mental health agency. The PC-FIT coach observes, coaches, and works with the child during mealtime from behind a one-way mirror (see Figure 1). PC-FIT coaching focuses on decreasing maladaptive parenting practices related to food consumption, while implementing empirically-based positive psychology interventions and modeling techniques to improve mealtime interaction, behaviors, and communication.

Central to the PC-FIT model is the implementation of the division of responsibility, where the parent decides what foods are served, and what and when the child eats. This framework allows families to follow the feeding practices they feel hungry and how they want to eat. Families further divide the responsibility, children learn to trust their body’s hunger/satiety cues, and parents learn and reinforce how to expose their child to healthy food options.

PC-FIT identifies clear and empirically supported behaviors to promote and avoid in successful treatment. The appropriate behaviors are represented by the acronym “F” and the inappropriate behaviors are represented by “ABCD.

In “F,” “F” stands for preparation of Food from food groups and family style serving, “I” stands for Intuitive Eating, and “T” stands for Table Talk. During the meal, the coach prompts the parent to present the Food-Family-Style, plating all the food at the center of the table, which allows the child to select the food items of their choice. For the “I” skill, the coach prompts the parent to model eating to satisfaction and using mealtime manners. Table Talk skills involve the coaching parents to engage in empathetic non-food-related conversation with your child while they eat. “ABCD” stands for Artifical Comments such as attempting to label one food item as being good or bad, which can be anything from a tool of negotiation, “C” stands for Coaxing or trying to pressure the child into eating parent provided foods, “D” stands for Defining Preferences, such as labeling for the child what foods they like or dislike. If the coach determines that the child’s feeding preferences are fixed, fostering their development of a balanced, variable diet. Last, “E” stands for Emotional Eating and serves to coach parents to avoid establishing emotional associations with food, such as using food to comfort or to console the child.

Methodology

Given an estimated attrition rate of 30%, that we needed to recruit over 100 dyads for screening, and treat 70 participants (20-30% for each dyads for each group). Participants receiving care at either the Child Guidance Center (CGC), a community mental health agency, or Dr. Riba’s Health Care (DRHC), a private practice, were included. Only one parent per family was included. A total of 148 dyads met the eligibility criteria. Parents were randomized to either PC-FIT or TAU. Fast and ABCDE behaviors were obtained for Clinical and Translational Sciences, with the support of a grant from the Orange County Alliance for Community Health Research.

Results

Sample characteristics
Eighneger caregiver-child dyads completed treatment with 11 assigned to PC-FIT and seven to TAU. The mean age of the children is 7.44, with 13 being female and the remaining five male. Eleven percent of the caregivers are biological fathers, 83% are biological mothers, and 6% are guardians. Ninety percent of the caregivers are Latino and 17% are Caucasian. The average age of the parents is 36.87.

Statistical findings were evaluated in all analyses, Chi-Square for categorical data and Mann-Whitney tests were used to analyze group differences with continuous data. Tests of significance were two-tailed, as hypotheses did not specify the direction of change.

Hypothesis

H1: It is hypothesized that PC-FIT participants will show decreases/IMPROVEMENTS in the variety of foods eaten, their eating to satisfaction, pleaseness of meals, and mealtime communication as compared to treatment as usual controls. The study aims to evaluate the following hypotheses:

Hypothesis One (H1): We will observe a significant increase in PC-FIT participants’ use of “F” skills and a decrease in “ABCD” behaviors (as measured by the BPFAS) from pre- to post-treatment in PC-FIT participants than in those assigned to the TAU condition.

Hypothesis Two (H2): We will observe a more significant decrease in levels of parenting stress (as measured by the Parental Stress Inventory) from pre- to post-treatment in PC-FIT participants than in those assigned to the TAU condition.

Hypothesis Three (H3): We will observe a significant improvement in parents’ assessment of children’s feeding behaviors (as measured by the Behavioral Pediatrics Feeding Assessment Scale) from pre- to post-treatment in PC-FIT participants compared to those assigned to TAU.

Hypothesis Four (H4): We will observe a more significant decrease in levels of parenting stress (as measured by the CBCL) from pre- to post-treatment in PC-FIT participants than in those assigned to TAU.

Implications

The current study demonstrates clinically relevant implications with regard to coaching as a viable treatment for reducing feeding practices that are known to play a role in pediatric obesity. The findings also suggest a promising empirical basis for the application of coaching in the reduction of eating disordered behaviors. Specifically, this study highlights that the coaching model resulted in decreased behaviors related to negative affect. However, the study has limitations related to the generalizability of these findings. For example, the coaching model has been shown to be effective in a clinical sample, but its effectiveness in a non-clinical population remains unknown. Additionally, the coaching model has been shown to be effective in reducing feeding behaviors, but it is not clear if these findings can be generalized to other populations, such as those with behavioral or emotional disorders. Finally, the coaching model has been shown to be effective in reducing feeding behaviors in children with obesity, but it is not clear if these findings can be generalized to children without obesity. Therefore, coaching techniques may be particularly useful when treating obese children who suffer from concurrent psychological conditions (e.g., depression, anxiety, poor self-esteem, impaired social relationships).

Limitations

This study presents initial findings of “ABCD” behaviors. Generalization of the present findings is limited due to the small sample of treatment completers. Further research is necessary to determine whether the coaching model is effective in a larger and more diverse sample. Although the coaching model has been shown to be effective in reducing feeding behaviors, it is not clear if these findings can be generalized to other populations, such as those with behavioral or emotional disorders. Additionally, the coaching model has been shown to be effective in reducing feeding behaviors in children with obesity, but it is not clear if these findings can be generalized to children without obesity. Therefore, coaching techniques may be particularly useful when treating obese children who suffer from concurrent psychological conditions (e.g., depression, anxiety, poor self-esteem, impaired social relationships).

References

If you need additional information, please contact the author at mshinn@cgci.org for a complete reference list.