

*Supporting*

# MATERNAL MENTAL HEALTH

IN AN INTEGRATIVE RELATIONAL MODEL



**HEALTHY  
DEVELOPMENT  
SERVICES**

American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN™  
California Chapter 3 - San Diego and Imperial Counties



**FAMILY HEALTH CENTERS  
OF SAN DIEGO**



**First 5  
San Diego**

# Supporting

# MATERNAL MENTAL HEALTH

## IN AN INTEGRATIVE RELATIONAL MODEL

### BACKGROUND & IDENTIFICATION OF NEED

A child's healthy development is rooted in their earliest relationships and the quality of those interactions. From their first days, children are establishing the ability to form close relationships, manage and express emotions, and explore the environment and learn.<sup>1</sup> When a mother experiences depression, her child is at an increased risk for developmental delays, as well as depression and other emotional disorders.<sup>2</sup> Additionally, children of mothers with depression are at higher risk for maltreatment and neglect.<sup>3,4</sup> As many as 12% of all pregnant or post-partum women experience depression in a given year. When mothers experience financial stressors, inadequate social support, pregnancy complications, loss or trauma and/or a history of depression,<sup>5,6</sup> the prevalence of depression can double. Depression can negatively affect a mother's sensitivity to her child's needs and her ability to provide the nurturing and consistent parenting essential for healthy brain development—the foundation of lifelong learning.<sup>7</sup>

The effects of a mother's depression on her young children were observed firsthand by Family Health Centers of San Diego's (FHCS D) staff during various services: parenting classes prompted the recollection of traumatic events for many of the mothers; developmental newborn screenings offered opportunities for staff to observe flat affect in mothers which led to concerns about attachment; and lastly, during developmental treatment sessions, staff reported concerns related to observed parent/child interactions or related to statements made by mother about her mood or feelings towards her child. FHCS D's staff was concerned that children's developmental progress may be hindered when a mother's ability to interact and stimulate her child consistently is compromised by the effects of depression, anxiety and trauma. In response to these reported findings, First 5 San Diego, a key contributor to improving the system of care for San Diego's youngest children, funded the Maternal Depression Program, known in the community as the Maternal Services Project. Partners in the launching of this program included FHCS D, Newton Center for Affect Regulation (NCAR), and the American Academy of Pediatrics, California Chapter 3.



### MATERNAL SERVICES PROJECT PROGRAM COMPONENTS

- Screening for depression following a trauma-informed approach
- Individual treatment for mother
- Mother-child dyadic treatment
- Care coordination
- Peer support group and social support events for mother and family
- Psychiatry and medication management services, as needed
- Psycho-education and linkage to clinical treatment and resources for mothers whose depressive symptoms fall outside of the mild to moderate range

### PROGRAM ELIGIBILITY AND STRUCTURE

The Maternal Services Project serves mothers experiencing mild to moderate depression who have children ages birth through five years old. Mothers are screened when they bring their child to FHCS D for a pediatric well child visit or a developmental check-up.

Eligibility for the program is based on a mother scoring in the mild to moderate range (i.e. scores of 5 – 14) on the Patient Health Questionnaire – 9 (PHQ-9). As shown in the tables on the next page, 45% of women screened were eligible.

## SCREENING, ENGAGEMENT & TREATMENT SERVICES

The Maternal Services Project successfully normalized screening for depression at pediatric well-child visits and pediatric developmental services. Once mothers who are eligible for the program are identified, engaging these mothers is a focus of the program’s dedicated care coordinator. The care coordinator works with mothers to address cultural, emotional, and practical barriers to treatment that might include child care, transportation, limited time and competing interests. Additionally, through relationship building and creating a safe and welcoming environment, both the clinician and care coordinator work to relieve the stigma mother and her family may have about accessing services.<sup>8</sup> For mothers who declined treatment, the care coordinator uses multiple strategies to engage women in services including:

- scheduling a developmental screening for the child where a PHQ-2 rescreening will occur,
- inviting mothers to a parenting or a mother-baby dyadic play class,
- calling biweekly or monthly to check-in on mother’s status,
- offering additional resources and referrals, as appropriate.

Table 1 below summarizes screening efforts, general screening results and engagement rates.

Table 1 - Screening & Engagement Rates Reporting Period: 7/1/13 - 6/30/18					
SCREENING TOOL	TOTAL NUMBER COMPLETED	SCREENING SERVICES RESULTS		SERVICES ENGAGEMENT RATES	
		POSITIVE	NEGATIVE	ENGAGED	DECLINED/ UNABLE TO REACH
PHQ-2	5,913	1,854 NO. OF WOMEN	4,059 NO. OF WOMEN		
		31% % OF TOTAL	69% % OF TOTAL		
PHQ-9	1,854	TARGET POPULATION MILD TO MODERATE (SCORE RANGE 5-14)	OUTSIDE TARGET POPULATION (SCORE RANGE 0-4, 15+)		
		962 NO. OF WOMEN	892 NO. OF WOMEN	220 NO. OF WOMEN	742 NO. OF WOMEN
		52% % OF TOTAL	48% % OF TOTAL	23% % OF TOTAL	77% % OF TOTAL



The Maternal Services Project is a program of Healthy Development Services (HDS). HDS is a countywide system of care that promotes children’s optimal development and learning by identifying and addressing problems early. HDS provides screening, assessment and treatment services for children ages 0 through 5 years old with mild to moderate developmental and behavioral concerns who would otherwise not qualify for early intervention. Services are provided to families using a 3-tiered model based on the severity of the child’s delay and family’s needs. Care Coordination is provided to support families as they navigate the HDS system of care and address socioeconomic and environmental barriers that may impact their ability to engage in services.



The population served by this program is primarily Hispanic/Latina, 84%, with a majority of women who designated Spanish as their primary language, 57.6%. Nine percent of the mothers served are white (non-Hispanic), three percent are African-American/Black, and four percent registered as other (Asian, Multi-racial, or declined to report).

The target population for this program is women with mild to moderate depression. As Table 2 demonstrates, FHCSO offers services and resources to all women, based on their depression severity. Of the 962 women in the mild to moderate range, 220 women engaged in services. The 23% engagement rate falls within the rates found in research where 21% – 24% of Latina women seek mental health help or treatment.<sup>9,10</sup> The program maintains specific protocols for ongoing attempts to engage women and continues to learn how to address barriers to women accessing services.

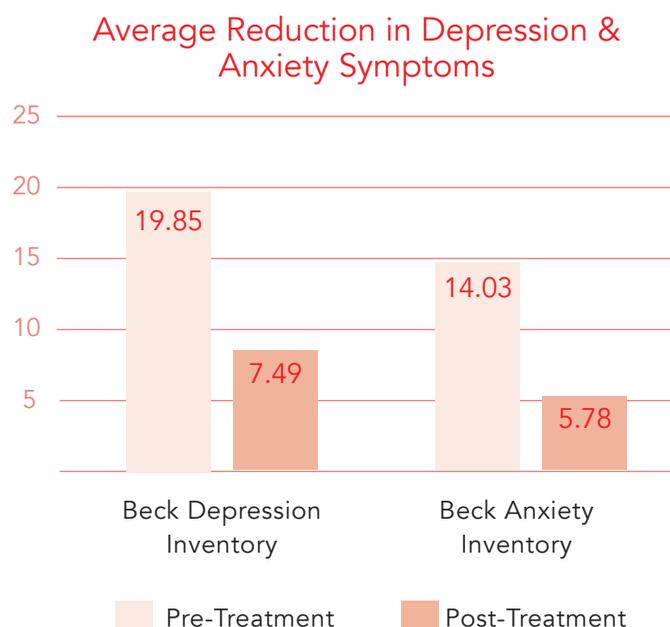
**Table 2 - Summary of PHQ-9 Scores & Services Offered Reporting Period: 7/1/13-6/30/18**

	PHQ-9 Depression Severity (Score Range)	No. of Women Screened	% of Total	Maternal Services Project (MSP) Services & Resources Offered	Healthy Development Services (HDS) & FHCSO Programs Offered
<b>TARGET POPULATION</b>	Minimal (0-4)	799	43%	Psycho-education and list of community resources	Women are additionally linked to all appropriate services including: HDS Global Development Class, HDS Infant Massage, and FHCSO development screening and surveillance program.
	Mild (5-9)	696	38%	Psycho-education, invitation to participate in MSP, and Care Coordination services	
	Moderate (10-14)	266	14%		
	Moderately Severe (15-19)	63	3%	Psycho-education and links to intensive treatment services at FHCSO Mental Health Services	HDS therapeutic intervention services are offered, as appropriate.
	Severe (20-27)	30	2%		
	<b>TOTAL</b>	<b>1,854</b>	<b>100%</b>		

Of note, six percent of all mothers screened with the PHQ-9 answered positively for suicidal ideation, across all levels of depression severity. When suicidality was identified, FHCSO and NCAR applied specific safety protocols for providing clearance. This trend may warrant further study to better understand the other factors influencing suicidal ideation besides severity of depression, such as, history of depression, pregnancy complications, self-efficacy<sup>11</sup> or other risk factors like trauma exposure or intimate partner violence.

### MOTHER & CHILD IMPROVEMENTS

Mothers and their mother-child relationships are clearly benefitting from the Maternal Services Project as evidenced by changes recorded on the Beck Depression Inventory (BDI)<sup>a</sup>. Mothers' depression scores decreased by over 62%. Similarly, mothers' total anxiety as measured by the Beck Anxiety Inventory (BAI)<sup>a</sup> decreased by nearly 59%.



<sup>a</sup> BDI: Pre-treatment assessments (M=19.85, SD=8.91) compared to post-treatment assessments (M=7.49, SD=8.26),  $t(80)=11.65$ ,  $p<.001$ . BAI: Pre-treatment assessments (M=14.03, SD=9.21) compared to post-treatment assessments (M=5.78, SD=5.91),  $t(79)=7.99$ ,  $p<.001$ .

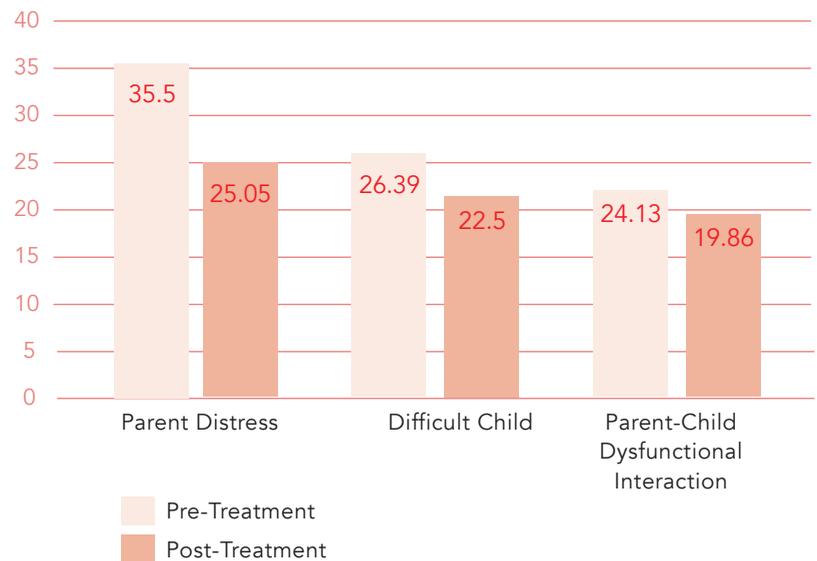
Decreased stress in mothers and better functioning in the mother-child relationship have been recorded using the Parent-Stress Index-IV (PSI-IV)<sup>b,c</sup>. After completing the Maternal Services Project, mothers recorded a 29% decrease in their parent distress, a 14.7% decrease in difficult child scores, a 17.7% decrease in parent-child dysfunctional interaction, and a 22% decrease in total stress.

Data is based on a sample of matched pre-treatment and post-treatment assessment results from July 2013 through June 2018. While many participants discontinued services when they began to feel better towards the end of treatment and therefore, did not complete a post-treatment assessment, over 57% of women in treatment completed 14 or more sessions and over 72% completed 10 or more sessions.

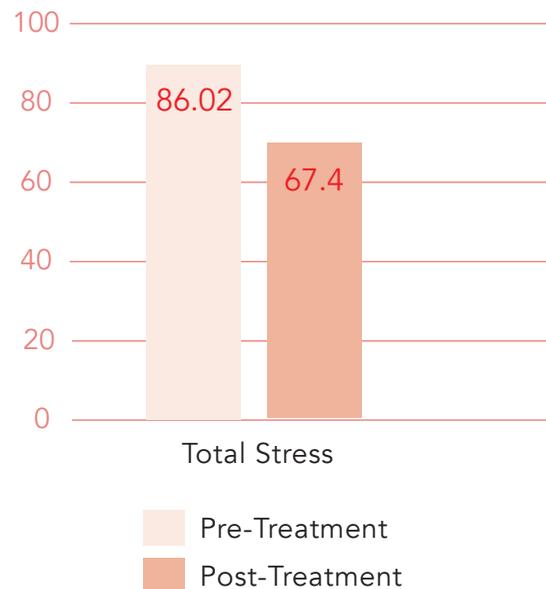
Additionally, mental health providers observed positive changes in mother's mood and behavior as well as positive effects of dyadic therapy on the mother, the child, and the mother-child relationship including

- an increase in mothers' use of positive parenting techniques, skills and knowledge,
- an improved quality of attachment with mothers who are more skilled at reading their children's cues,
- mothers are better able to work on limits and boundaries with children which increases mother's feelings of efficacy and self-worth
- mothers are learning coping skills and self-care techniques.

### Parenting Stress Index (PSI-IV) scores demonstrate mothers' reduced stress after treatment



### Parenting Stress Index (PSI-IV) scores for total stress reduced after treatment



b PSI-IV: Parent Distress: Pre-treatment assessments (M=35.5, SD=9.27) compared to post-treatment assessments (M=25.05, SD=7.98),  $t(83)=8.72$ ,  $p < .001$ . Difficult Child: Pre-treatment assessments (M=26.39, SD=9.09) compared to post-treatment assessments (M=22.5, SD=7.64),  $t(83)=4.11$ ,  $p < .001$ . Parent-child dysfunctional interaction: Pre-treatment assessments (M=24.13, SD=8.42) compared to post-treatment assessments (M=19.86, SD=6.56),  $t(83)=4.96$ ,  $p < .001$ .

c PSI-IV Total Stress: Pre-treatment assessments (M=86.02, SD=21.52) compared to post-treatment assessments (M=67.4, SD=18.88),  $t(83)=8.09$ ,  $p < .001$ .

## LESSONS, CHALLENGES, OPPORTUNITIES & SUCCESSES

Since the implementation of the Maternal Services Project in July 2013, program partners have benefitted from an iterative learning process that was dynamic and organic. First 5 San Diego created an environment that promoted on-going quality improvement and flexibility to develop new approaches and processes to better meet the needs of mothers and their children in the program. Lessons learned, opportunities for increased access and services in San Diego, as well as the key elements of success and the challenges are described below.

### LESSONS LEARNED

Success throughout engagement and treatment services was based on the following program elements:

- Fostering mothers' feelings of trust and safety by building upon established relationships with a consistent and familiar team of providers
- Understanding the culture of the region and the types of families served
- Importance of normalizing the screening process
- Value of coordinated and integrated care including intensive care coordination services (e.g. co-location with behavioral health or providing joint appointments)
- Efficient communication processes and protocols to ensure timely and effective engagement and treatment
- Dyadic treatment to improve the mother-child relationship
- Peer supports and family events which offer opportunities for joyful, quality interactions with their partners, peers and children
- Mothers practice self-care on a more consistent basis
- Program staff follow the mother's lead in her level of comfort and readiness to accept services

### CHALLENGES

Engagement of mothers in service is the primary challenge. Efforts to identify, understand, and address barriers to engaging in treatment are important. Barriers include:

- Stressors such as exposure to domestic violence, substance abuse by partner, conflict and shared housing with in-laws and extended family, food scarcity, housing needs, lack of employment, financial concerns, immigration issues, incarceration of partner, being a single parent, and/or trauma exposure
- Lack of stable or consistent phone access
- Transportation, time, and work schedules
- Limited access to child care
- Low literacy levels
- Stigma and other barriers, such as fear of being labeled, lack of family support, and lack of awareness, understanding and acceptance of mental health issues within the family



## OPPORTUNITIES FOR INCREASED ACCESS & AVAILABILITY OF SERVICES IN SAN DIEGO

- Introduce an anxiety screening tool due to the common co-occurrence of anxiety and depression
- Promote workforce development in maternal depression, dyadic work and care coordination
- Promote and implement trauma informed practices for delivering screening, assessment and treatment services for maternal depression
- Advocate for payment of dyadic treatment and maternal depression treatment through Medi-Cal

## KEY ELEMENTS FOR SUCCESS

As a Federally Qualified Health Center, FHCS D was well positioned to implement this program successfully due to several factors:

- Organizational commitment to screening adults for depression
- Co-located services within an established continuum of care
- Pediatrician champion who spearheaded training efforts for fellow pediatricians
- Organizational support and partnerships (e.g. medical and mental health leadership, legal information, technology departments)
- Leveraging of organization resources for training and capacity building of staff in maternal depression
- Renaming of the program, internally to Maternal Services Project, as part of the organization's sensitivity towards the population's stigma to mental health
- Utilization of a trauma informed approach at all levels of service, from screening, to care coordination support, to assessment and treatment
- Integration of maternal depression program into electronic health record system
- On-going monitoring of program's implementation process and focus on quality improvement



- 1 Zero To Three. (2017). The Basics of Infant and Early Childhood Mental Health: A Briefing Paper. Retrieved from <https://www.zerotothree.org/resources/1951-the-basics-of-infant-and-early-childhood-mental-health-a-briefing-paper>.
- 2 Center on the Developing Child at Harvard University. (2009). Maternal depression can undermine the development of young children. Working paper No. 8. Retrieved from <http://www.developingchild.harvard.edu>.
- 3 Earls, Marian. (2010). Incorporating Recognition and Management of Perinatal and Postpartum Depression into Pediatric Practice. *Pediatrics*, 126:1032-1039. Retrieved from <http://pediatrics.aappublications.org/content/126/5/1032>
- 4 U.S. Department of Health and Human Services, Office of Planning, Research and Evaluation. (2007). National Survey of Child and Adolescent Well-being, No. 13 Depression Among Caregivers of Young Children Reported for Child Maltreatment. Retrieved from [https://www.acf.hhs.gov/sites/default/files/opre/depression\\_caregivers\\_0.pdf](https://www.acf.hhs.gov/sites/default/files/opre/depression_caregivers_0.pdf)
- 5 Miller, J. (2002) Postpartum Depression. *Journal of American Medical Association*. 287(6):762-765
- 6 Vesga-Lopez, O. et al. (2008) Psychiatric Disorders in Pregnant and Postpartum Women in the United States. *Archives of General Psychiatry*. 65(7): 805-815. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669282/>
- 7 National Scientific Council on the Developing Child. (2004). Young children develop in an environment of relationships. Working Paper No. 1. Retrieved from <http://www.developingchild.net>
- 8 Grote, NK. (2007). Engaging women who are depressed and economically disadvantaged in mental health treatment. *Soc Work*. 52(4):295-308.
- 9 Young, A. S., Klap, R., Sherbourne, C. D., & Wells, K. B. (2001). The quality of care for depressive and anxiety disorders in the United States. *Archives of General Psychiatry*, 58(1), 55-61.
- 10 National Alliance for Mental Illness. (2009). Latina Women and Depression Fact Sheet.
- 11 Bodnar-Deren, S., et al. (2016). Suicidal Ideation During the Postpartum Period. *J Womens Health (Larchmt)*. 25(12): 1219-1224. doi: 10.1089/jwh.2015.5346. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5175420/pdf/jwh.2015.5346.pdf>.



First 5 San Diego promotes the health and well-being of young children during their most critical years of development, from the prenatal stage through five years of age. Our goal is to help ensure that every child in San Diego County enters school ready to succeed. First 5 San Diego provides San Diego's youngest children with healthy development screenings, dental care, high-quality preschool, and parenting workshops. First 5 San Diego programs and services are funded through San Diego County's portion of the State's Proposition 10 tax revenues. Programs and services are funded based on local needs and priorities and fit within the Commission's goals.

[www.first5sandiego.org](http://www.first5sandiego.org)



FAMILY HEALTH CENTERS  
OF SAN DIEGO

For nearly 50 years, Family Health Centers of San Diego's (FHCS) mission has been providing affordable, high-quality health care and support services to everyone, with a special commitment to the uninsured, low-income and medically underserved. FHCS is an accredited Patient-Centered Medical Home (PCMH) by the Joint Commission and the National Committee for Quality Assurance (NCQA), organizations dedicated to enhancing health care quality and safety. At a patient-centered medical home, patients receive quality care through a direct and long-term relationship with their chosen provider and health care team. A wide array of medical, specialty, and supportive services for pediatric and adult patients is offered. FHCS has been the Lead Agency for Healthy Development Services in the Central and East Regions for over a decade, and has been providing developmental services for more than 35 years, with the primary focus of improving the lives of children and families through prevention and early intervention services.

[www.fhcsd.org](http://www.fhcsd.org)

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

California Chapter 3 - San Diego and Imperial Counties



The American Academy of Pediatrics, California Chapter 3 (AAP-CA3) is the San Diego County chapter of the American Academy of Pediatrics, a national organization of pediatricians who dedicate their efforts and resources to the health, safety and well-being of infants, children, adolescents and young adults. AAP-CA3 is uniquely positioned to provide expertise in child development and act as a natural convener, leader and collaborator in the region, having functioned as the coordinator for three major countywide collective impact programs since 2006 including Healthy Development Services, First 5 First Steps, and Reach Out and Read San Diego. AAP-CA3 provides technical assistance and training to organizations and healthcare providers dedicated to ensuring the health, school readiness, and success of low-income and otherwise marginalized children. For the Maternal Depression Program, AAP-CA3 has provided clinical expertise and support from its inception.

[www.aapca3.org](http://www.aapca3.org)



**Newton Center for Affect Regulation**

INTERVENTION AND TRAINING FOR THE PROMOTION OF SECURE ATTACHMENT

The Newton Center for Affect Regulation (NCAR) is a for profit corporation serving the mental health needs of parent/infant dyads, children, adults, couples, and families at any age. Its mission is to promote emotional security, growth, and happiness in children, adults, couples, and families. NCAR is specialized in the application of developmental neuroscience and its role in brain entrainment in infancy associated with future emotional regulation. Therapeutic services are provided by clinicians trained in integrative regulation therapy (IRT), an evidence informed brain-based scaffolding for psychodynamic therapies designed to improve relational attunement and emotional regulation. NCAR has provided infant/parent dyadic interventions in Healthy Development Services in partnership with FHCS since 2012 and actively trains licensed and licensed eligible clinicians in the use of IRT. NCAR will take advocacy positions to support a child's right to secure attachment and actively engages in prevention models that improve infant/parent emotional synchrony.

[www.newton-center.com](http://www.newton-center.com)

*Supporting*

**MATERNAL MENTAL HEALTH**

IN AN INTEGRATIVE RELATIONAL MODEL