

Organization Name - Denver Health and Hospitals Foundation

Project Title - Multi-Generational Infant Mental Health for the Prevention of Substance Use Disorders

Brief Project Summary - This project would strive to ensure every child has a strong mental health start by addressing early social-emotional, relational, and clinical determinants of attachment and infant mental health.

Geographic Areas Served: Denver Citywide

Need Statement – In 1-2 sentences, tell us what issue or problem your program/project will address.

Attachment between caregivers and children is the most powerful known predictor of lifelong mental health. Secure attachment predicts lifelong resilience and has been shown to be passed on from generation to generation. On the other hand, insecure childhood attachment predicts aggression, anxiety, depression, and substance misuse. Therefore, this project proposes to help every family in Denver develop a secure attachment for their child.

The Problem – Why is this an important issue in which to invest in order to improve mental health and/or substance misuse in the City and County of Denver?

Behavioral health issues and treatment have become widely recognized as a public health issue that needs additional attention and expansion within our communities and health care settings. In the state of Colorado, behavioral health needs and lack of access to care have been implicated as contributors to traumatic events within the community, including substance misuse, high suicide rates, and gun violence at schools and public venues. While Colorado is addressing emergent behavioral health crises, through the instituted "Crisis Services" program, optimal prevention strategies focus on identifying and treating patients needing behavioral health services before they are in crisis.

Research shows that half of infants do not have a secure attachment to their caregivers (Cassidy & Shaver, 2016, Handbook of Attachment). Barriers to attachment include stressful events or lack of skills and knowledge that make it difficult for caregivers to be available and responsive to their children. Stressful events include adverse childhood events such as abuse, parental incarceration, and violence. They also include natural disasters like COVID-19 or social problems such as homelessness, poverty, and racism. Even without these problems, parents frequently do not have the knowledge or skills about the importance of attachment and bonding and how to promote a secure attachment for their child.

Insecure attachment is a problem because it consistently predicts poor mental health and risk for substance use disorders. To make matters worse, insecure attachment is a cyclical, repeating pattern. That is, adults with a history of insecure attachment are more likely to have children who also have an insecure attachment. For this reason, the project we propose aims to help every child in Denver have a strong start by promoting secure attachment to one's caregivers. This will, in turn, promote lifelong resilience and wellbeing that is passed on from generation to generation.

Project/Program Description – With the funding you are requesting from Caring for Denver, describe what you intend to do to address Denver's mental health and/or substance misuse needs related to the

current Call for Proposals and how you intend to do it. Please refer to the current Call for Proposals available on caring4denver.org for more information about the current focus area.

This project has the vision to give every child in Denver a strong mental health start by providing families with the knowledge, tools, and resources for their children to have a secure attachment to their caregivers. Healthy attachment and social-emotional development in the first year of life results from the infant-parent relationship and influences future attachment and social-emotional development for the infant and for generations to come. This project supports secure attachment and social-emotional development for every child born at Denver Health (Rosenblu, K.L., Dayton, C.J., & Muzik, M. (2019). Infant social and emotional development: Emerging competence in a relational context, In Zeanah, Jr., C.H. (Ed.) Handbook of Infant Mental Health (4th Ed., pp. 95-119). New York: The Guilford Press). The proposed project has three specific aims: 1) to make infant mental health services available to all families of newborns at Denver Health; [REDACTED]

As the most powerful and evidence-based predictor of lifelong mental health and wellness, a secure attachment in infancy predicts positive communication skills, constructive conflict resolution, and positive peer relationships in adolescence. Insecure attachments predict adolescent anxiety, aggression, depression, difficulty with transitions, risky sexual behaviors, and substance misuse (Cassidy & Shaver, 2016, Handbook of Attachment). A secure attachment is established when caregivers are consistently available and responsive to an infant's needs, establishing trust between infants and their caregivers. Unfortunately, issues such as a parent's poor physical and/or mental health; parental substance misuse; infant medical complications; and stress related to food insecurity, housing insecurity, poverty, racism, and other social problems can interrupt this early attachment. This project seeks to promote lifelong mental health by reducing some of the social pressures that affect attachment and increasing the ability of caregivers to attend and respond to their newborn's needs.

The impetus for this project stems from Denver Health's most recent Community Engagement Survey. This effort engaged a diverse group of more than 170 community stakeholders in interviews, focus groups, and surveys to help make Denver a healthier place to live. This report clearly identified early childhood mental health and social barriers to health as two key priorities. Indeed, 38% of stakeholders identified early childhood mental health as a priority. A common and recurring theme was expressed by one community partner, "Prioritize early childhood emotional social development and young adult resiliency." [REDACTED]

Project Aim 1 is to make infant mental health services available to all families born at Denver Health. The project would accomplish this aim by hiring a full-time psychologist with expertise in infant mental health to work in the Labor and Delivery, Newborn Nursery, Neonatal Intensive Care Unit (NICU), and Pediatric Intensive Care Unit (PICU) areas of the hospital. This clinician would provide mental health

services to families and consult with hospital staff to improve attachment and bonding between babies and their caregivers. Examples of interventions include providing assessment and brief intervention for caregiver anxiety, birth trauma (e.g.'s Cesarean section and pre-term delivery), depression, and substance use. The clinician would also provide education and training for hospital staff in areas related to infant attachment, pain, and other important issues. Finally, this clinician would support staff and families in situations of infant death or demise.

Outcomes – What are the changes you hope to see from implementing the activities above? If awarded, Caring for Denver Foundation can work with your organization on how to measure these changes.

This project would give every child at Denver Health, approximately one-third of all Denver children, a strong mental health start. The following are specific outcomes that will be tracked and reported. During year one, the infant psychologist will directly serve 120 families [REDACTED]

[REDACTED]. In year two, the infant psychologist will directly serve 300 new families [REDACTED]

[REDACTED]. In the third and final year, the infant psychologist will directly serve 300 new families [REDACTED]

[REDACTED]. The proportion of mothers attempting to breastfeed (goal=85%) and breastfeeding at 1 week (goal=56%), 3 months (goal=26%), and 6 months (goal=13%) will be tracked [REDACTED]. Additionally, project staff will contact at least 30 parents per year to ask them to complete the Postpartum Bonding Questionnaire 3 to 6 months post-intervention. The questionnaire assesses infant bonding and attachment, which this project uses as the definition of a strong mental health start. Participants will also complete the questionnaire before receiving project interventions, and they can even complete it prior to their child's birth. Pre-post scores will be compared with each other and also with published clinical cutoffs. Finally, demographic variables related to age, ethnicity, and race will be tracked and reported.

Impacts – Please review the impacts outlined in the current Call for Proposals document. Which one(s) do you believe your program/project will help to address?

Reduced harm to self and others through addressing trauma, mental health, and substance misuse

Increased ability to demonstrate healthy resilience for coping with challenges and stresses in life

Increased awareness and involvement by family and allies in ways that help youth address trauma, mental health, and substance misuse

Improved mental health and/or reduced substance misuse by youth

Population Served – Denver Health (DH) is Colorado's safety-net health system and cares for 33% of Denver's population annually. Denver Health specializes in providing services for vulnerable populations, such as people with low incomes, immigrants and refugees, persons experiencing homelessness, pregnant youth, persons with substance use disorders, and victims of violence. Furthermore, Denver Health is the largest healthcare provider in Colorado for people with Medicaid or no insurance. Its eleven community health centers and nineteen school-based health centers are located strategically in

disadvantaged areas with high-health needs and provide a full spectrum of services including primary care, dental care, pharmacy services, culturally-responsive care, care navigation that is culturally and linguistically appropriate, linkage to wraparound services, and virtual health care delivery.

We proudly provide \$2.1 billion of high quality, uncompensated care annually. Of all Denver Health patients, 60% are members of ethnic and racial minority groups, and 70% live below the 200% federal poverty level. Over 3,500 babies are born at Denver Health every year, and 85.4% of them are enrolled in Medicaid. These statistics show that support for Denver Health in this endeavor will have a profound impact on vulnerable communities across our city and state.

Your Organization's Story – As Colorado's essential safety-net hospital, Denver Health has promoted health equity since 1860. Our institution has unique access to vulnerable communities, having worked to establish trusting, affirming, and culturally-responsive languages between provider and patient. First, Denver Health delivers over 3,500 babies every year. Second, the hospital provides comprehensive healthcare to Denver's families in nineteen school-based health centers and eleven community clinics throughout the city. And third, both Denver Health and project director Dr. Christian Thurstone have a successful history of utilizing initial project and program investments to grow their impact across patients, providers, and systems. Furthermore, Denver Health has a history of investing in behavioral health. For example, Denver Health began its Substance Treatment, Education, and Prevention (STEP) Program in 2003, with support from a community partner, to serve adolescents with substance misuse. Since then, the program has grown to include seven Denver Health school based health centers and the main campus. Today, the program serves over 500 youth and their families annually. Of these youth, 70% are members of ethnic and racial minority groups, and 60% receive some public assistance. Published evaluations of the program show significant improvements in measures of mental health, rates of substance misuse, quality of life, and academic performance. We believe this to be strong evidence that Denver Health is the prime location for the proposed project, giving every child in Denver a strong mental health start and reducing the risk of substance misuse through a multi-generational approach.

If partnerships are needed, describe the partnerships you have established or plan to establish, and what work they are contributing - Denver Health maintains strong community partnerships throughout Denver and has several established partnerships in place to make this project successful. [REDACTED]

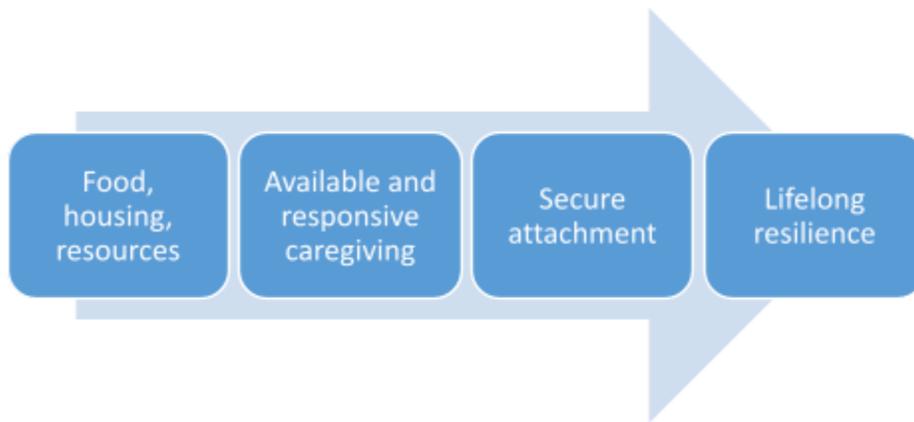
[REDACTED] These referral partnerships include Fussy Baby Network Colorado (a hotline and source of information), Mental Health Center of Denver (for ongoing mental health treatment after discharge from the hospital), [REDACTED] Rocky Mountain Human Services (for community resources), and Warm Connections (for community resources and information after discharge from the hospital). Of these partnerships, the Mental Health Center of Denver and Denver Health have a longstanding and successful partnership that includes information sharing, project coordination, securing joint funding, and policy advocacy.

If partnerships are needed, will any partner organizations receive funding from this grant?

Yes

No

What else do we need to know? - The following diagram is a logic model for this project. First, families are provided with important social resources. Second, they have the information and skills to bond with their child. Next, children develop a secure attachment with their caregivers. Secure attachment, in turn, is the strongest known predictor of lifelong resilience that is also passed on to future generations.



Timeline and Milestones – The following is a detailed timeline for this work: 1) April 1, 2020 – project start date. 2) June 15, 2020, new staff (psychologist with expertise in infant mental health, [REDACTED]) starts. 3) March 30, 2021 – Annual progress report due; [REDACTED]; [REDACTED]; 120 families directly served by the infant psychologist [REDACTED]. 4) March 30, 2022 – Annual progress report due; [REDACTED] 420 families directly served by the infant psychologist [REDACTED]. 5) March 30, 2023 – Final progress report due; [REDACTED] 720 families directly served by the infant psychologist; [REDACTED] infant psychologist is sustainable through billing for clinical services.

Measuring Progress on Outcomes – The following describes the primary outcomes and how they will be recorded: 1) Number of families directly served by the infant psychologist – this data is recorded in the electronic medical record; [REDACTED]

[REDACTED] The Department of Behavioral Health at Denver Health has a data analyst who will pull and collate the data from the electronic medical record for tracking and reporting purposes.

Challenges – This project was chosen for its impact and its feasibility. The impact and feasibility are assured by extensive pre-planning for this project, which includes input from consumers, administrators, clinicians, funders, nurses, managers, and top leaders. As a result, we are confident this project will be

successful [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] We are confident that we can sustain the services of the infant psychologist through clinical billing with the initial investment of this grant. [REDACTED]
[REDACTED]

Budget Narrative – Infant Mental Health

Denver Health Infant Mental Health Budget Narrative

DIRECT COSTS

Personnel

Key Staff Salaries

One (1) Infant Mental Health Psychologist (1.0 FTE in year 1 and year 2) (PsyD or PhD) to provide infant mental health interventions to pregnant people, caregivers, and infants. Also, the Psychologist will advocate for the needs of infants, families, and caregivers. This will give the provider adequate opportunity to demonstrate effectiveness, productivity, and sustainability with the aim to operationalize the position at the end of the 2-year grant. Position to be filled. (year 1 = \$107,000; year 2 = \$110,210)

Total Key Staff Salaries Request [REDACTED] = \$217,210

Other Personnel Costs

Benefits and fringe for one full-time staff is figured at 28.2% of total salary request and includes costs for medical insurance, workers compensation, FICA and taxes (year 1 = \$30,174; year 2 = \$31,079)

Total Other Personnel Costs Request [REDACTED] = \$61,253

INDIRECT COSTS

Indirect Costs are figured at 10% of Modified Total Direct Costs per the DHHA Negotiated indirect cost agreement = \$27,846 (year 1 = \$13,717; year 2 = \$14,129)

TOTAL REQUEST [REDACTED] = \$306,309

- Year 1 = \$150,891
- Year 2 = \$155,418



Multi-Generational Infant Mental Health

August 11, 2021

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