# Rocky Mountain Prevention Research Center (RMPRC)



**Rocky Mountain Prevention Research Center** 

colorado school of public health

## History of RMPRC

Since 1998, the RMPRC at the Colorado School of Public Health has focused on advancing healthy lifestyles and preventing chronic disease among residents and communities in the Rocky Mountain region by conducting, disseminating, and serving as a resource for community based research and policy.

The success of the RMPRC has been the result of a core partnership between researchers from the University of Colorado Anschutz Medical Campus and community members of the San Luis Valley (SLV), a beautiful area, located in Southcentral Colorado, where approximately half of the residents are Hispanic/Latino and a quarter live in poverty. The RMPRC has partnered with a SLV community advisory board for over 20 years to conduct community-based participatory research. Through active collaboration, we build local capacity to execute evidence-based public health practice.

One of the RMPRC's current research projects focuses on the prevention of the intergenerational transmission of adverse childhood experiences (ACEs). We worked with the SLV Community Advisory Board (CAB) to develop the research design for this 5-year multi-level, community-based study that couples implementation of evidence-based strategies while leveraging extant community infrastructure and resources. While it originated directly from the community, this priority also aligns closely with national public health priorities, including the Center for Disease Control and Prevention's (CDC) Health Impact in 5 years initiative.



## A CDC-Funded Prevention Research Center

The RMPRC is one of twenty five CDC-funded Prevention Research Center (PRC) in the U.S. The national network of PRCs work together to identify public health problems and focus on the development, testing and evaluation of public health interventions that can be applied widely, particularly in underserved communities.



#### Mission and Vision

The RMPRC's **mission** is to conduct community-engaged research with schools and communities across the Rocky Mountain region to achieve health equity by optimizing social-emotional, mental, and physical health.

Our **vision** is that children and families live in communities that optimize health and well-being.

#### Our approach includes:

- Building and sustaining long-term partnerships with early child learning centers, schools, and communities to enhance child health and wellbeing.
- Conducting community-engaged research to improve social-emotional development and wellbeing with children and families in under-served communities.
- Using a multi-level approach to connect families to evidence-based programs and multi-sector partnerships to strengthen community capacity.

#### The RMPRC's 5-year goals are to:

- 1) Establish and complete a 5-year center research and translation agenda to promote family and child health and well-being, thriving communities, and health equity in the Rocky Mountain Region;
- 2) Develop and strengthen community partnerships to bridge research to public health practice;
- 3) Develop and sustain translation efforts across Colorado;
- 4) Communicate and disseminate findings across Colorado and Region 8;
- 5) Train public health and medical practitioners, students and multisector practitioners across Colorado and Region 8.

#### Directors



Jenn Leiferman, PhD; Director; PI; Co-Chair, CDC PRC Mental Health Workgroup



Jini Puma, PhD; Associate Director; PI; CDC PRC Evaluations Committee Member

#### **Core Directors**



Glen Mays, PhD; Co-I



Betsy Risendal, PhD; Pl



Elaine Scallan Walter, PhD, MA; Co-I

#### Affiliated Faculty



Sheana Bull, PhD, MPH; Co-I



Lori Crane, PhD, MPH; PI



Mary Dinger, PhD, MSEd; Co-I



Charlotte Farewell, PhD, MPH; PI



Kristin Kilbourn, PhD; Co-I

#### Affiliated Faculty



Beth McManus, PhD; Co-I



Lisa Miller, MD, MSPH; Co-I



Chad Morris, PhD; Co-I



Sean O'Leary, MD; Co-I



Linda Overholser, MD; Co-I



John Rice, PhD; Co-I



Patricia Valverde, PhD, MPH; Co-I



Danielle Varda, PhD; Co-I

#### **Deputy Director**



Stephanie Baker, MS Co-Chair, CDC PRC Operations Committee Co-Chair, Mental Health Workgroup

#### SLV Research Team



Veronica Cisneros Early Childhood Education (ECE) Coach



Angela Haynie Professional Research Assistant (PRA)



Mara Hsu ECE Coach



Marylana Martinez, PRA

#### **Denver Team**



Michele Kimminau Financial Administrator



Dave LaRocca, MS Sr. PRA



JoDee Relph Center Administrator



Sharon Scarbro, MS Biostatician; Senior PRA

### RMPRC - Community Partnerships

#### State National Advisory Committee

- Catherine Ayoub\*, RN, EdD; Associate Professor, Harvard Medical School
- Ross Brownson, PhD; Bernard Becker Professor of Public Health, School of Medicine and Social Work; Director, Prevention Research Center in St. Louis, Washington, University in St. Louis
- John Douglas Jr., MD; Executive Director, Tri-County Health Department
- Hiram Fitzgerald\*, PhD, MA; Associate Provost; University Distinguished Professor,
   Department of Psychology, Michigan State University
- Geneva Hallett, MAEd; Director, Pyramid Plus Colorado Center for Social Emotional Competence and Inclusion/Healthy Child Care Colorado (HCCC)
- Todd Jorgensen; Deputy Director, Colorado Office of Early Childhood, Department of Human Services
- David Olds, PhD; Professor; Director, Prevention Research Center for Family and Child Health; Founder, Nurse Family Partnership, Pediatrics, School of Medicine, University of Colorado
- Elaine Scallan Walter, PhD; Director, Rocky Mountain Public Health Training Center, Colorado School of Public Health, University of Colorado
- Michael Seid, PhD; Professor of Pediatrics, University of Cincinnati, Cincinnati Children's Hospital Medical Center

\*National advisors

#### Academic Partners

#### **Community & Behavioral Health**

colorado school of public health





ADULT AND CHILD CONSORTIUM FOR HEALTH OUTCOMES RESEARCH AND DELIVERY SCIENCE

UNIVERSITY OF COLORADO | CHILDREN'S HOSPITAL COLORADO



#### **Latino Research & Policy Center**

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#### Health Systems, Management & Policy

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**Centers for American Indian & Alaska Native Health** 

colorado school of public health



### San Luis Valley

Cradled between the Sangre de Cristo and San Juan mountains at the headwaters of the Rio Grande, lies the San Luis Valley. This vastness, coupled with a diversity of geologic and geographic features ranging from lush river bottoms to an inland ocean of sand to craggy summits reaching elevations over 14,000 feet, has enticed and enthralled people since the times of Ice Age hunters. [1]

The San Luis Valley is an extensive high-altitude depositional basin of approximately 8,000 square miles with an average elevation of 7,664 feet above sea level. The valley is a section of the Rio Grande Rift and is drained to the south by the Rio Grande, which rises in the San Juan Mountains to the west of the valley and flows south into New Mexico. The valley is approximately 122 miles long and 74 miles wide, extending from the Continental Divide on the northwest rim into New Mexico on the south. [2]

The first descriptions of this homeland of nomadic hunters, including Apache, Kiowa, Navajo and Yutah (Ute) tribal people, came from Spanish governors before there was a United States. During ensuing decades, explorers, pioneers, homesteaders, land speculators, prospectors, and travel writers were attracted to the Valley's riches—freely flowing clean water, comforting hot springs, verdant wetlands teeming with birds, fish, and wild game, expanses of natural grass hay, majestic mountain vistas, forests and upland meadows, plus Mother Lode deposits of silver and gold. Today, as you travel any of the routes into the San Luis Valley, you will be struck by the expansive landscapes, rugged mountains, and endless blue skies. [1]

By the 1850s, Hispanic settlers from New Mexico had migrated into the San Luis Valley (SLV) to establish small plazas within land grants issued by the Mexican governor in Santa Fe. These pioneers gave birth to the permanent settling of Colorado. Soon after, people from a variety of backgrounds seeking mineral wealth, free land, or frontier experiences joined the progression. The Valley gave Colorado its first national wildlife area and its first national monument. [1]

The Summitville gold rush rivaled the fame of Pike's Peak. Colorado's richest silver mines lured an even broader array of migrants into the cultural mix. Rail towns, farm towns, and supply towns emerged as the railroad spread into the mountains and across the Valley floor. Agriculture finally became the sustaining foundation for the Valley's economy. Today center pivots irrigate crop circles of potatoes, barley, wheat, alfalfa, plus a variety of other crops. [1]

<sup>1. &</sup>quot;San Luis Valley: The Cradle of Colorado". San Luis Valley Museum Association. (2018)

<sup>2. &</sup>quot;San Luis Valley." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia (2020)





A journey through the San Luis Valley reveals the influences of Native Americans, Hispano pioneers, Mormon settlers, and Amish Homesteaders, as well as ranchers, farmers, and prospectors. These groups converged within the Valley prior to the 20th century. Each brought a unique set of cultural traditions, many of which endure to this day. [1]

## SLV Community Advisory Board (CAB)



Don Hanna, SLV CAB Chair, PALS La Puente Director; CDC PRC Community Committee Member



Lisa Lucero, Director, Implementation SLV Area Health Education Center



Courtney Arthur, Rio Grande County Victim's Advocate



Antonio Sandoval, Retired Educator



Della Cox-Vieira, Alamosa County Public Health Director



Helen Sigmond, Alamosa County Commissioner



Suzanne DeVore, Decisions Support Analyst, Valley Wide Health Systems



Sherri Valdez, Early Childhood Council Executive Director



Helen Lester, Retired Hospice Del Valle

## STANCE (Linking <u>Systems To address ACEs iN</u> <u>Childhood Early on)</u>

The RMPRC's core research project is designed to reduce the inter-generational transmission of adverse childhood experiences (ACEs) in the San Luis Valley (SLV) of Colorado. ACEs are risk factors that have a profound and lasting effect on a person's health, and to accomplish this project's objective, a community-engaged, stakeholder-driven, multi-level intervention, entitled STANCE, is being implemented.

The STANCE intervention has three primary components:

- 1) Universal assessment of ACEs for all children aged zero to five and their primary caregivers;
- 2) Implementation of an evidence-based program to promote positive socialemotional development in children; and
- 3) A community-level social network analysis to leverage and strengthen the system of care to better meet the needs of children and families struggling with a high number of ACEs and associated downstream health outcomes.

The primary effectiveness outcomes will be evaluated using a stepped-wedge cluster randomized design conducted in 16 Early Childhood Education (ECE) centers that serve ~750 children. A systems-change approach that marries preschools, community organizations, government agencies, policy-makers, and researchers will increase the chances for success for vulnerable children prior to the compounding effects of health problems caused by ACEs.

Co-Pls: Drs. Jenn Leiferman & Jini Puma Funding Source: CDC 1U48DP006399



#### CDC-Funded COVID-19 Supplemental Grant

The RMPRC's project, COVID-19 Supplemental Grant, is aimed at increasing COVID-19 vaccine uptake in rural Colorado communities (e.g., San Luis Valley and Southeastern Colorado). To accomplish this, a community-based, multi-level project was implemented.

The COVID-19 Supplemental Grant aims to:

- Increase vaccine uptake in rural Colorado communities
- Identify community leaders to guide intervention work (i.e., Community Advisory Councils)
- Implement evidence-based public health vaccine strategies
- Facilitate statewide collaboration and partnerships

This project will continue to collect both quantitative (surveys) and qualitative (interviews) data in the San Luis Valley and Southeastern Colorado in hopes to better understand individuals, particularly parents' opinions, beliefs, and attitudes regarding the COVID-19 vaccination for themselves and for their children. This project utilizes a true community-based participatory approach that continues to foster existing relationships with communities and encourages new partnerships.

Co-Pls: Drs. Jenn Leiferman & Jini Puma Funding Source: CDC 1U48DP006399



### CDC-Funded Special Interest Projects

Cancer RESULTS
(Resources, Engagement, and Support for the Use of Lifetime Tailored Cancer Prevention Services) (2019–2024)

The unique focus and contribution of the Colorado site to the Cancer Prevention and Control Research Network is to increase the impact of cancer screening and the health of cancer survivors by accelerating the use and dissemination of evidence-based strategies in high-risk individuals.

This research project engages key stakeholders to identify gaps in meeting current evidence-based guidelines for risk-appropriate care, and to develop and disseminate an implementation intervention to increase their use in communities with a high cancer burden including rural, minority, and the medically underserved.

PI: Dr. Betsy Risendal Funding Source: CDC 1U48DP006399 Validation of Self-Reported Vaccination Status among Adult Patients in Private, Public and Managed Care Health Care Settings (2020-2022)

The overall goal of this project is to estimate measures of validity in self-reported vaccine (influenza; status for nine vaccines pneumococcal; herpes zoster; diphtheria [Td]; tetanus-diphtheria-pertussis [Tdap]; human papillomavirus [HPV]; hepatitis A; hepatitis B; and COVID-19) within demographic and disease risk groups. These measures include sensitivity, specificity, and net bias. These measures will then be used to adjust estimates produced by self-report surveys, resulting in better information on which to base programmatic decisions and efforts to increase the uptake of vaccines throughout the U.S.

These estimates of validity must be vaccine specific and specific to demographic and risk factor groups, because some groups may be able to more accurately report their vaccine status than others. We will also conduct an indepth examination of alternative non-survey sources for estimating vaccine coverage and produce a White Paper on this issue.

PI: Dr. Lori Crane

Funding Source: CDC 1U48DP006399

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Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.

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-World Health Organization

#### My Baby, My Move+

My Baby, My Move+ (MBMM+, 2019–2021) is a peer-led wellness intervention which aims to reduce excessive gestational weight gain (EGWG) by targeting prenatal physical activity, mood, and sleep quality. Up to 50% of pregnant women in the U.S. gain weight in excess of the Institute of Medicine guidelines. EGWG leads to poor maternal and child outcomes. It also sets the stage for long-term overweight/obesity for both mother and child.

A pilot, randomized controlled 2 arm trial (MBMM+ intervention; Baby Basics program) was conducted. Up to 100 pregnant women (50 intervention arm, 50 control arm) were recruited from the Denver Metro and surrounding areas. Women in the intervention arm will participate in the 12-week MBMM+ intervention. The intervention was offered virtually. The overall goal of the MBMM+ intervention is to instill healthy habits (e.g., physical activity, good sleep hygiene, stress management) during and beyond pregnancy. Findings from this study will be used to inform a future, larger randomized trial.

PI: Dr. Jenn Leiferman

Funding Source: NICHD R21HD097450





## Integrated Nutrition Education Program (INEP)

INEP is a creative and fun way for kids to learn about healthy eating in their classroom and to share what they learn with their families. Each lesson includes a hands-on cooking activity that teaches students how to prepare and taste new fruits and vegetables. INEP is funded by Supplemental Nutrition Assistance Program Education (SNAP-Ed) and conducted through partnerships with the University of Colorado and various school districts and schools from around the state.

INEP's goal is to instill life-long nutrition behaviors to prevent obesity, type 2 diabetes, cancer, and heart disease. To accomplish this goal, INEP targets increased fruit and vegetable consumption, overall healthy eating, children's willingness to try new foods and increased physical activity.

INEP reaches approximately 10,000 elementary school children with its programming every year.

Pl: Dr. Jini Puma

Funding Source: SNAP-Ed, IHEA, 202000013809





#### Culture of Wellness in Preschools (COWP)

Childhood obesity has more than doubled in the past thirty years (Ogden, Carroll, Kit, & Flegal, 2014) with low-income and ethnic minority children being disproportionately affected (Wang & Beydoun, 2007). Early childhood is a critical time to combat the childhood obesity epidemic for two reasons: 1) early development of basic motor skills, which are linked to later physical activity levels (Goodway, Robinson, & Crowe, 2010), begin in early childhood; and 2) food- and nutrition-related attitudes, preferences, and behaviors are developed during these formative years (Birch & Sullivan, 1991). Children who are obese in their preschool years are more likely to be obese in adolescence and adulthood (Sharma et al., 2009) and to develop diabetes, hypertension, hyperlipidemia, asthma, and sleep apnea (Krebs et al., 2007). As such, prevention and early intervention are key and are a public health priority (Larson, Ward, Neelon, & Story, 2011). COWP is a comprehensive and collaborative early childhood obesity program, which aims to promote a "culture of wellness" in preschool settings by increasing fruit and vegetable consumption and physical activity levels. This is accomplished by bringing the following to preschool sites throughout Colorado:

- Classroom-based nutrition education
- Preschool physical activity professional development program
- Parent wellness workshop series
- Staff workplace wellness program
- A strategic planning process to make health-promoting policy, system and environment changes

All program components are evidence-based or promising practices. From its inception, COWP has reached approximately 70,000 students, parents and teachers, 150 low-income preschools and early childhood education centers, and 14 Colorado counties.

Pl: Dr. Jini Puma

Funding Source: SNAP-Ed, IHEA, 202000013809





Younger. Healthier. Happier.

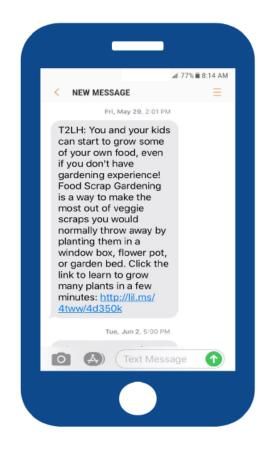
#### Text2LiveHealthy (T2LH)

Text2LiveHealthy is a nutrition and physical activity digital health outreach effort that links existing INEP and COWP youth nutrition and physical activity education provided in the classrooms to the home via text messaging in order to influence behavior change for SNAP-eligible families across Colorado.

This program was created based on the Theory of Planned Behavior. Subscribers receive 2-3 text messages per week, sent in English or Spanish, depending on the language preference on the following core themes: increasing consumption of fruits and vegetables, increasing physical activity, increasing consumption of water and decreasing consumption of sugarsweetened beverages. Each messaging cycle consists of 30 core messages and supplemental local messages. After each theme, evaluation questions are sent out via text to determine the impact of the texts on subscribers' goal setting and health behaviors. Quantitative qualitative evaluation results demonstrate a positive impact of subscribers, with a significantly greater impact on Spanishspeaking subscribers.

T2LH currently Year 4 in implementation, with a reach of over 3,000 participants. There are several partnerships underway to Text2LiveHealthy for the older adults and their caregivers, the Lakota tribal community, Colorado refugee communities, as well as partnerships with states and agencies receiving SNAP-Ed funding.

Pl: Dr. Jini Puma Funding Source: SNAP-Ed, IHEA, 202000013809





#### Enhancing Patient-Provider Communication: Identification and Treatment of Perinatal Mood Disorders

### Utilizing online technology to improve provider-patient communication on prenatal mood disorders

Prenatal depression is associated with numerous, deleterious maternal and child health outcomes. Pregnant women have expressed a need for help in identifying and treating their depressive symptoms. Healthcare providers play a significant role in managing (i.e. identifying and treating/referring to care) prenatal depression as they are often the sole exposure to mental health resources for women. However, many providers may not be meeting these recommendations. Identifying women who are exhibiting depressive symptomatology and providing guidance based on evidence-based practices and/or utilizing linkages to mental health specialists are all integral to providing optimal patient-centered care. This study conducted a randomized-controlled trial to test the effects of an online training with a diverse group of providers from Colorado and Virginia on the management of prenatal depression. Findings from this study will be used to inform a future, larger randomized trial.

Our online training provided an overview of the harmful effects of prenatal depression on numerous maternal and child outcomes, as well as provides a framework that uses the 5As model (i.e. Assess, Advise, Agree, Assist and Arrange) to teach providers how to 1) assess for depression, 2) advise the patient on treatment options, 3) agree on a treatment plan, 4) assist patient in any problem solving related to obtaining treatment, and 5) arrange for supports for the patient (e.g. link patients to mental health resources in the community).

PI: Dr. Jenn Leiferman

Funding source: AHRQ R03HS26015-01A1

## Fostering Resilience in Early Education (FREE) Program

Working in early childhood education (ECE) settings is a stressful profession and formal (center-based) and informal (Family, Friend Neighbors) ECE caregivers significant challenges including low pay, high stress, and poor working conditions. ECE also caregivers are disproportionately impacted by mental and physical health outcomes. For example, rates of depression among ECE caregivers are three times the national average. The Fostering Resilience in Early Education (FREE) program is a twogeneration, two component ECE center-and home-based intervention focused ensuring that ECE caregivers have access to supports that improve their well-being, in turn promoting high quality relationships with the children in their care and fostering resilience. Two evidence based strategies will be implemented:

#### FREE Component 1: ECE Caregiver-Focused Intervention

Caregivers will have the opportunity to participate in an evidence-based strategic planning process to implement policy, system, and environment (PSE) changes that promote ECE caregiver well-being in their workplaces. An example of a systems-level change is hosting a center-specific Adverse Childhood Experiences (ACEs) training to understand the impact of caregivers' own experiences and self-awareness on their teaching practice.

#### FREE Component 2: ECE Child-Focused Intervention

FREE classroom activities and coaching sessions are designed to promote caregiver and child well-being, and provide an opportunity for staff wellness practices to be incorporated into daily classroom routines. These activities have been adapted from an evidence-based mindfulness tool preschool teachers and the children in their Evidence suggests implementation of mindfulness activities results in improvements in caregiver wellbeing and multiple domains of child development.

Co-Pls: Drs. Charlotte Farewell & Jini Puma Funding Sources: AWD-202819 AWD-205032PRE CU Foundation, 0223375



#### Fostering Resilience Among Mothers Early (FRAME)

Past research suggests that maternal depression during the pre- and post-natal periods is positively associated with obesity in early and middle childhood; however, the findings vary by timing and duration of exposure. Additionally, not all mothers suffering from depression will experience the same detrimental maternal and child health outcomes. Internal and external factors foster resilience, or positive adaptation to adversity, and can promote maternal mental health during these early critical periods. Consideration of the determinants of obesity within broader multi-level framework emphasize the upstream influences of maternal mental health and resilience beginning very early in the life course.

The FRAME project will have significant impacts on women's health. If accumulation of maternal depression from the prenatal period through five-years of age is more predictive of childhood development outcomes compared to exposure solely during the prenatal period, the Life Course Health Development model can be used to explicate the ways in which adversity and resilience may aggregate over time and affect the intergenerational transmission of poor mental health. Additionally, findings may strengthen and expand evidence-based research related to mental health by targeting internal and external resilience supports for mothers.

PI: Charlotte Farewell

Funding Source: Lorna Grindlay Moore Junior Faculty Launch Award program

#### Prevention of Adverse Childhood Experiences (ACEs)

The Colorado Department of Health and Environment (CDPHE) Positive Activities Lead to Success (PALS), and the RMPRC collaborated to reduce the impact of ACEs and mental health illnesses in the San Luis Valley. PALs is a licensed after-school and summer children program for children ages 5 to 10 combating instability in their home.

The mission of PALS is to provide children who have experienced trauma and ACEs a structured environment. The environment of PALS supports social-emotional learning, creativity, exploration, and nurture.

This collaboration between CDPHE, PALs, and the RMPRC aimed to achieve three main goals. First, PALs provided a modified, intense version of their program. This intensified version provided increased one-on-one time for the children with a PALS's staffer. Second, PALs hosted monthly workshops for parents in the San Luis Valley with each focused on different topics including parenting knowledge, skillsets, competence, and emotional regulations. Third, PALs connected parents who experienced high ACEs/mental health illnesses to behavioral health telemedicine at The Children's Hospital in Aurora, Colorado. While PALs implemented these three goals, the RMPRC conducted a program evaluation where the team will evaluate both the intensified program and monthly workshops, as well as evaluating the impact of the behavioral telehealth medicine on the parents. The RMPRC is currently preparing a final evaluation report

PI: Dr. Jenn Leiferman

Funding Source: CDPHE, 2021\*2007

### PAUSE for Your Well-Being (Physical Activity, Awareness, Unplug and connect, Sleep, Express Gratitude)

The "PAUSE for your well-being" campaign, funded by the Rocky Mountain Prevention Research Center and Rocky Mountain Public Health Training Center, aims to motivate individuals to adopt five evidence-based activities that foster well-being and improve mental health. Our campaign supports individuals residing in rural communities experiencing heightened stressors and behavioral health shortages especially during the COVID-19 pandemic. Promoting simple, accessible, and scalable protective factors to mitigate anxiety, depression, and stress is critical to optimizing the mental and physical health of all Americans.

#### "PAUSE" for your well-being:

- Physical Activity: Engaging in regular, moderate intensity exercise reduces stress, anxiety and depressive symptomatology.
- Awareness: Practicing mindfulness improves mood, quality of sleep and overall cognitive functioning.
- Unplug and Connect: Social connection promotes overall wellbeing and reduces risk for anxiety and depression.
- Sleep: Good sleep hygiene enhances mood and helps to mitigate stress as well as reduce the risk of hypertension and cardiovascular disease.
- Express Gratitude: Gratitude is associated with perceived overall health and wellbeing, reduced anxiety and depressive symptoms, and higher levels of happiness

PI: Dr. Jenn Leiferman



# Upcoming Project in FY 2022: Well-being of the ECE Workforce in Low-Resourced Locations (WELL)

A community-academic partnership between the Rocky Mountain Prevention Research Center at the University of Colorado and five Head Start Agencies in Colorado.

Working in early care and education (ECE) settings is stressful and ECE educators often face excessive demands and low-resourced workplaces. This imbalance in demands and resources impacts overall well-being of the ECE workforce; teachers are disproportionately impacted by chronic mental and physical health conditions. Poor workforce well-being can lead to high burnout and turnover rates, which translates to negative teacher-child relationships, and delayed developmental outcomes for children in their care. Multi-level factors that most significantly impact the well-being of Head Start staff, as well as multi-level solutions, must be explored.

The overarching goal of the Well-being of the ECE Workforce in Low-Resourced Locations (WELL) study is to investigate individual-, interpersonal-, and systems-level factors that are most associated with worker well-being in Head Start settings and then to implement the WELL intervention, a multi-level, multi-strategy intervention, via partnerships with five large Head Start agencies in Colorado and assess the WELL intervention's implementation and effectiveness to improve worker well-being. Specific aims include: 1) To utilize Head Start-University partnerships to investigate constructs within the National Institute of Occupational Safety and Health Worker Well-being framework (e.g., Workplace Physical Environment and Safety Climate, Workplace Policies and Culture) among Head Start staff that are most associated with well-being; 2) To adapt and refine the WELL program to target specific constructs that are most significantly related to well-being identified in Aim 1 and then to test the effectiveness of WELL; and 3) To collect data to inform the implementation and dissemination of the WELL research findings and initiate translation activities to achieve large-scale adoption.

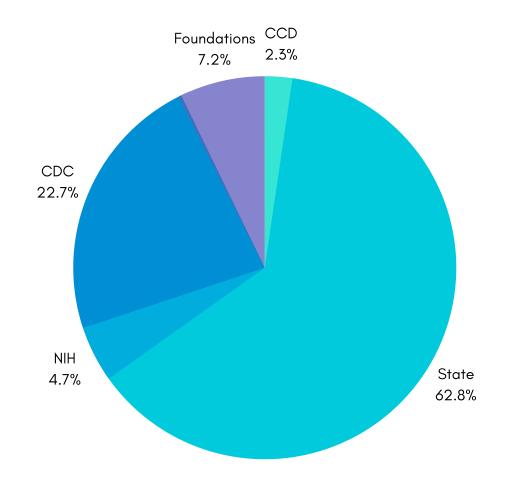
Co-Pls: Drs. Jini Puma & Charlotte Farewell

Funding Source: Administration for Children and Families (ACF) HHS-2021-ACF-OPRE-YR-1967

## FY 2021 Funding

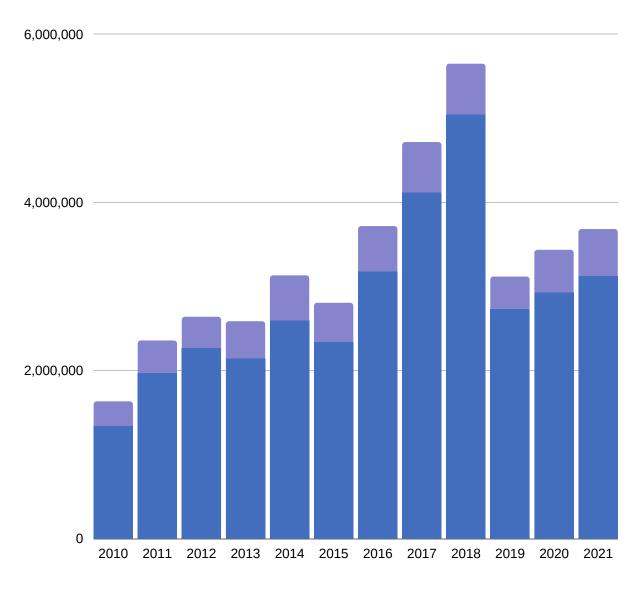
The RMPRC had a diverse funding portfolio in FY 2021. Direct and Indirect costs are included in the numbers below.

State	\$2,311,341
Center for Disease Control (CDC)	\$833,678
Foundations	\$264,213
National Institue of Health (NIH)	\$174,186
City and County of Denver	\$85,222
Agency for Healthcare Research	\$9,095
and Quality (AHRQ)	



## Funding History

The RMPRC continues to have a strong funding portfolio to support its faculty in preventing disease and promoting health.





#### RMPRC in the News...

 (2020, Nov.) Leiferman, J. was interviewed for an article, The Mental Health Advice We All Need Right Now. 5280 Denver's Mile High Magazine. https://www.5280.com/2020/11/the-mental-health-advice-we-all-need-right-now/.

- (2021, Mar). Leiferman, J. Why It Won't Be Easy for Us All to Feel Connected Again as the Pandemic Winds Down. 5280 Denver's Mile High Magazine.
- (2021, Apr). Leiferman, J. Anxiety Among Fathers Is Higher Than Recently Reported, New Study Suggests. CU Anschutz Today. https://mensfitness.co.uk/mental-health/postnatal-depression-dads-how-to-get-help/?fbclid=lwAR3dM4-UE0G6Wi4hVV0zEOxeq2jnQs\_3LEHUFcpFRYT33awKeyq5Qakob8E.
  - This story also appears in ColoradoSPH Biweekly Email, Men's Fitness, Verywell Health, Verywell Family, BabyGaga, EurekAlert, Mirage News, News-Medical Life Sciences and ANI News.
- (2021, Jun). Farewell, C., Puma, J. The Buell funded project, FREE, was highlighted in the ColoradoSPH Biweekly Email.
- (2021, Jun). Dr. Jenn Leiferman was interviewed for the article, "Keenan: The best gift for dad?: Appreciation," in the Calgary Herald online article. https://calgaryherald.com/life/relationships/keenan-the-best-gift-for-dadappreciation.
- (2021, Jun). Leiferman, J., Puma, J. The CDC funded COVID-19 Vaccine supplement grant was highlighted in the school's news page & in the ColoradoSPH Biweekly Email.

#### Manuscripts

• Bergling, E.\*, Farewell, C.V.\*, Puma, J.\* (2020). Development of a Dissemination and Implementation Framework for an Early Childhood Obesity Prevention Program. Journal of Nutrition Education and Behavior. https://doi.org/10.1016/j.jneb.2020.08.012.

- Bergling E.\*, Leiferman J.\*, Garcia R., Puma J.\* (2020). Self-Reported and Medical Professional Diagnosed Depression in Rural Colorado: Findings from the San Luis Valley Community Health Survey. Journal of Health Care for the Poor and Underserved.\*\*
- Courtney, J., Nuss, K., Lyden, K., Harrall, K., Alaimo, K., Glueck, D., Villalobos, A., Hamman, R., Hebert, J., Hurley, T., Leiferman, J.\*, Li, K., Litt, J. Comparing the activPAL software's Primary Time in Bed Algorithm against Self-Report and van der Berg's Algorithm. Measurement in Physical Education and Exercise Science.
- Farewell, C.V.\*, Jewell, J., Walls, J., Leiferman, J.\* (2020). A Mixed-Methods Pilot Study of Perinatal Risk and Resilience during COVID-19. Journal of Primary Care and Community Health, 11, 2150132720944074.
- Farewell, C.V.\*, Powers, J., Maiurro\*, E.\*, Scarbro, S.\*, Quinlan, J.\*, Puma, J.\* (2020). Implementation of Policy, System and Environment Changes in Early Childhood Education Settings. International Journal of Child Care and Education Policy, 14(5). https://doi.org/10.1186/s40723-020-00070-6.
- Farewell, C.V.\*, Quinlan, J.\*, Melnick, E.\*, Lacy, R.\*, Kauie, M., Thayer, Z., Leiferman, J.\*. Resiliency in New Zealand moms with young children: Exploring cultural variations in protective factors. Women and Health Journal.
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<sup>\*</sup>RMPRC Employee

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#### Manuscripts

• Farewell, C.V.\*, Quinlan, J.\*, Melnick, E.\*, Powers, J.\*, Puma, J.\* (2021). Demands and Resources experienced by the Early Childcare Workforce serving High Need Populations. Early Childhood Education Journal.

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- Hansen, A., Farewell, C.V., Jewell, J., Leiferman, J.\* Exploring Predictors of Social Distancing Compliance in the United States during the COVID-19 Pandemic. Disaster Medicine and Public Health Preparedness
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<sup>\*</sup>RMPRC Employee

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#### Scientific Conference Presentations

 Melnick, E.\*, Maiurro, E.\*, Farewell, C.\*, Quinlan, J.\*, & Puma, J.\* (2020, Aug.). "Fostering Resilience in Early Education: Promoting the quality of worklife and wellbeing of early childhood education providers in Colorado." Virtual 2020 Public Health in the Rockies (PHiR) Conference.

- Farewell, C.V.\*, Leiferman, J.\*, Thayer, Z., & Puma, J.\* (2020, Oct.). "Associations between perinatal mental health and early childhood obesity in a multi-ethnic pregnancy cohort study" accepted for an oral presentation at the American Public Health Association Conference (APHA).
- Farewell, C.V.\*, Puma, J.\*, Quinlan, J.\*, Melnick, E.\*, & Powers, J.\* (2020, Oct.). "Quality of worklife, mental health and wellbeing among the early childcare workforce serving high need populations." American Public Health Association Conference (APHA).
- Leiferman, J.\* (2020, Oct.). "STANCE project". CDC PRC Bimonthly Mental Health Workgroup.
- Leiferman, J.\* (2020, Oct.). "STANCE project". Population Mental Health State of Science Virtual Conference.
- Maiurro, E.\* (2020, Oct.). "Fostering Resilience in Early Education (FREE) Program Overview.
   Presentation." Monthly Nutrition & Obesity Network Policy Research & Evaluation (NOPREN)
   Early Childhood Education (ECE) Workforce Wellness Working Group Meeting.
- Risendal, B.\* (2020, Nov.). "Special Interest Project (SIP) 19-005." Monthly CDC Steering Committee meeting.
- Leiferman, J.\*, Hanna, D. (2020, Dec.). "Community-level interventions to address ACEs: Successes and lessons learned." Child Maltreatment National Peer Learning Team Webinar Series.
- Bergling, E.\*, Mendoza, B.\* (2021, Feb.). "Utilization of a Texting Platform to Connect People to Health-Related Information and Resources During the COVID-19 Pandemic." The Association of SNAP Nutrition Education Administrators (ASNNA) virtual conference.
- Coleman, J.\*, Kellerman, M.\* (2021, Feb.). "Adapting in-person evidence based adult education for virtual learning." The Association of SNAP Nutrition Education Administrators (ASNNA) virtual conference.
- Pendleton, D.\* (2021, Feb.). "ASNNA Race, Health, and Social Equity Townhall." Abstract submitted in collaboration with the ASNNA Race, Health, and Social Equity Committee. The Association of SNAP Nutrition Education Administrators (ASNNA) virtual conference.
- Puma, J.\*, Bergling, E.\* (2021, Feb.). "Using Dissemination and Implementation (D&I) Science Frameworks to Better Evaluate SNAP-Ed Interventions and Better Promote Equity." The Association of SNAP Nutrition Education Administrators (ASNNA) virtual conference.
- Puma, J.\*, Quinlan, J.\* (2021, Feb.). "Moving Forward by Looking Back: National Results from the SNAP-Ed Census of Intervention, Evaluation and Reporting Activities, 2017 to 2021." The Association of SNAP Nutrition Education Administrators (ASNNA) virtual conference.

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#### Scientific Conference Presentations

• Maiurro, E.\*, Gonzales, L.\*, Farewell, C.\*, & Puma, J.\* (2021, Mar.). "Fostering Resilience in Early Education." Rocky Mountain Early Childhood Virtual Conference.

- Puma, J.\*, Bergling, E.\* (2021, Mar.). "Development of a Dissemination and Implementation Framework for an Early Childhood Obesity Prevention Program." HER NOPRN Early Childhood Education (ECE) Working Group Virtual Meeting.
- Farewell, C.V.\*, Quinlan, J.\*, Puma, J.\* (2021, Apr.). "COVID-19 and the Early Childhood Workforce: Analysis of Risk, Wellbeing, Resilience, and Modified Teaching Modalities." Society for Research in Child Development 2021 Annual Meeting.
- Farewell, C.V.\*, Quinlan, J.\*, & Puma, J.\* (2021, Apr.). "Job Demands and Resources experienced by the Early Childhood Education Workforce." Presented as part of a Paper Symposium entitled COVID-19 and the Early Childhood Workforce: Analysis of Risk, Wellbeing, Resilience, and Modified Teaching Modalities. Society for Research in Childhood Development Virtual Bi-Annual Meeting.
- Puma, J.\* (2021, Apr.). "Impact of COVID on Prevention Research and Pivoting Research in the COVID Context." 2021 PRC Virtual Meeting.
- Puma, J.\* (2021, Apr.). "Re-asserting the Value of Public Health During Unprecedented Times: The Role of Prevention Research Centers." 2021 PRC Virtual Meeting.
- Farewell, C.V.\*, & Walls, J. (2021, May). "Mindful Moms to be: Promoting Prenatal Wellbeing during COVID-19." Association for Psychological Science (APS) Virtual Convention.
- Leiferman, J.\* (2021, May). "Addressing Mental Health Across the PRC Network: Bringing Heart, Mind, and Action Together." CDC PRC Webinar: Mental Health Workgroup.
- Walls, J., & Farewell, C.V.\* (2021, May). "Feasibility and adaptability of a perinatal mindfulness program delivery remotely for diverse participants." Association of Maternal and Child Health Programs (AMCHP) 2021 Annual Virtual Conference.

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#### Trainings/Webinars

 Enhancing Resiliency Training with SLV CAB (2020, Sept-Oct). Monthly SLV CAB Meetings.

- Population Mental Health State of Science Conference. (2020, Oct.). RMPRC partnered with the Department of Family Medicine, Kempe Center, National Mental Health Innovation Center, Population Mental Health and Wellbeing, Program for Injury Prevention, Education & Research, and the Rocky Mountain Public Health Training Center.
- Community Level Interventions to Address ACEs: Successes and Lessons Learned Webinar (2020, Dec). RMPRC presented along with Don Hanna, Director of PALS, La Puente.
- From Frameworks to Families: Understanding the Impact of Early Life Stress and Resiliency Research to Practice Webinar (2021, Jun). RMPRC partnered with Injury & Violence Prevention Center.

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