



Years of
Innovation
Impact
Connection...
What's Next?

2021-2023

ANNUAL REPORT



1601 N.W. 12th Ave., Miami, FL 33136

MailmanCommunications@Med.Miami.edu

MailmanCenter.org | (305) 243-6801



TABLE OF CONTENTS

I. Introduction.....	01
II. Message from the Director.....	02
III. Celebrating 50 Years.....	03
IV. Our Team and Partners.....	05
V. Education and Training.....	11
VI. Clinical Services.....	14
VII. Research.....	20
VIII. Community Engagement.....	26
IX. Strategic Planning.....	28
X. What's Next.....	29
XI. Contact Us.....	30

OUR GOALS



Years of
Innovation
Impact
Connection...
What's Next?

- Provide outstanding care, advance clinical practice, and contribute to improved standards of care beyond our walls.
- Generate new and emerging knowledge that leads to prevention and/or treatment of developmental and health challenges.
- Educate students, professionals, community members, individuals with disabilities, and family members to develop leaders of the future.
- Partner with diverse individuals and communities in meaningful ways that promote equity and opportunity.



Our Vision

Improving lives through innovation, impact, and connection

Our Mission

To strengthen health and well-being by being responsive to the intersection of disability and diversity through community partnerships, training, research, clinical service, and public policy.

The Mailman Center is part of a nationwide network of institutions that make up the Association of University Centers on Disabilities (AUCD). At the University of Miami, the Mailman Center is a matrix center that includes faculty members from 14 departments of the Miller School of Medicine, seven other centers and institutes, and eight schools and colleges of the University. Our program has support from federal, state, local, and foundation grants and contracts, as well as individual donors.





A MESSAGE FROM THE DIRECTOR...

In 1964, the University of Miami was awarded a HEW Multidisciplinary Training Program in Mental Retardation Grant, followed in 1966 with a US Public Health Service construction grant to create a University Affiliated Facility (UAF). With the generous support of Abraham and Joseph Mailman and the Joseph P. Kennedy Jr. Foundation, the Mailman Center for Child Development became one of the first 11 UAFs, opening our doors on March 21, 1971. In September of this year, we celebrated our 50th (+2 because of COVID) anniversary with an afternoon looking at where we came from, where we are, and, to quote Mrs. Eunice Shriver, "What's next?"

The original mission of the UAFs was to create a workforce to care for individuals with intellectual and developmental disabilities in community settings instead of institutions, promoting ideals of independence and inclusion. Over our 50+

years, we have stayed true to this mission while making a commitment to our Mailman Center vision to improve lives through innovation, impact, and connection. When we opened in 1971, we had approximately \$6M of annual leveraged funding, trained about 30 advanced students from multiple disciplines, and were able to serve about 1,500 children. Early research at the Mailman Center was impactful, with innovation in understanding language development and finding ways to help children who were deaf learn to speak. Over the years, we expanded our umbrella to include children with neurodevelopmental disabilities associated with prematurity, chronic illnesses, those impacted by trauma, and those experiencing disability and health inequity due to complex social determinants of health. We have organized the Mailman Center to be truly interprofessional, expanded leadership training to community professionals, self-advocates, and high school

students, and focused on partnerships with communities to build widespread capacity for providing needed services. Our dashboard numbers are impressive- this past year our leveraged funding exceeded \$42M, we trained more than 100 advanced students, had more than 60 active research protocols, and served more than 15,000 children. By any measure, we should be proud of our success.

When the Mailman Center opened, there was public criticism that we couldn't accommodate the number of referrals being made. Even though we serve ten times that number today, there are many children who still need access to services. That means we have to do better. For this reason, we are embarking on a new strategic plan that involves enhanced and expanded community participatory principles, utilization and evaluation of technology as a means of expanding access to services, and focus on social justice and health equity in disability at a population level.

This has been a year of both celebration of the last 50 years and preparation for the next 50. We have much to look back on with pride, but even more to look forward to with anticipation and promise. We are so grateful for the vision of the Mailman family, the faculty and staff over the years, our trainees, and our community partners that urge and support us to always continue looking forward.

- **Daniel Armstrong, Ph.D.**

Mailman Center Celebrates 50 Years of Innovation, Impact, and Connection



**Mayor Daniella
Levine Cava**



**President
Julio Frenk**



**Dean Heri Ford,
M.D., M.H.A.**

“For half a century, this institution has been a beacon of hope and support for children and families across our community.”

“Over it’s 50 years as a unit of the University of Miami, the Mailman Center has exemplified the value of an academic program improving lives outside the university by generating, evaluating, translating, and sharing.”

“The Mailman Center for Child Development remains one of the jewels of the Miller School of Medicine and its rich tradition of looking beyond its walls and current programs to see what can be done better continues today and is the cornerstone of its *raison d’etre*.”



Mailman Center 50th Highlights



As we looked back on 50 years of contributions, the Mailman Center celebrated the innovation, impact, and connection that has impacted hundreds of thousands of children through direct services, benefits of new knowledge, training of future professionals, and sharing in the building of community capacity to address needs at home. Our success is based on the strong and enduring collaborations across programs and with community partners, and we look forward to what the next 50 years will accomplish.



Our Mission Partners

The Mailman Center's core funding from the Agency for Community Living, Maternal and Child Health Bureau, and Florida Department of Health Children's Medical Services has leveraged significant support from other local, state, and federal agencies, as well as local philanthropy. In 2003, a county referendum established The Children's Trust. The Mailman Center received one of the first Children's Trust grants (Families First, continuously funded for 20 years) and has received millions of dollars of additional support from the Trust.



In addition, we have been supported by the United Way of Miami-Dade, the Miami-Dade County Public Schools, the Batchelor Foundation, Holtz Children's Hospital, Florida Healthy Start, Ounce of Prevention, Taft Foundation, Dyson Foundation, and Dr. John T. Macdonald Foundation, to name just a few.

The Mailman Center has more than 120 affiliation agreements with other universities, local and state agencies, childcare centers, and disability-serving organizations, making realization of our mission possible.



Programs at the Mailman Center are made possible with generous support from our funders and partners:



Thank You

Funders and Partners
For Your Generous Support



About Us



At a Glance

61 Full-Time Faculty Across UM
252 Full-Time Staff

Executive Leadership



Director

Daniel Armstrong, Ph.D.



Associate Director

Michelle Schladant, Ph.D.



Assistant Director

Jason Jent, Ph.D.



Administrative Director

Aja Levine, MSW

Core Infrastructure Directors



Research

Alan Delamater, Ph.D.



Community Engagement

Dainelys Garcia, Ph.D.



Clinical Services

Eileen Davis, Ph.D.



Training

Elana Mansoor, Psy.D.

Interprofessional Collaboratives (ICP) Leaders



Promoting Behavioral Health

Elizabeth Pulgaron, Ph.D. and Julieta Hernandez, Ph.D.



Community Wellness

Ruby Natale, Ph.D., Psy.D. and Maite Schneker, Ph.D.



Interprofessional Collaboratives (ICP) Leaders



Neurodevelopment Intervention Science

Michelle Berkovits, Ph.D. and Lynn Miskiel, M.A.

Neurodevelopment Discovery Science

Robert Fifer, Ph.D. and Daniel Messinger, Ph.D.



Lifespan

Rochelle "Shelly" Baer, M.S.W. and Lawrence Friedman, M.D.

Mailman Center Core Programs Leadership



Debbie Institute

Kathleen Vergara, M.A.

Early Steps

Michelle Berkovits, Ph.D.

Child Protection Team

Walter Lambert, M.D.

Pediatric Mobile Clinic

Lisa Gwynn, D.O.



Linda Ray Intervention Center

Isabel Chica, M.S.

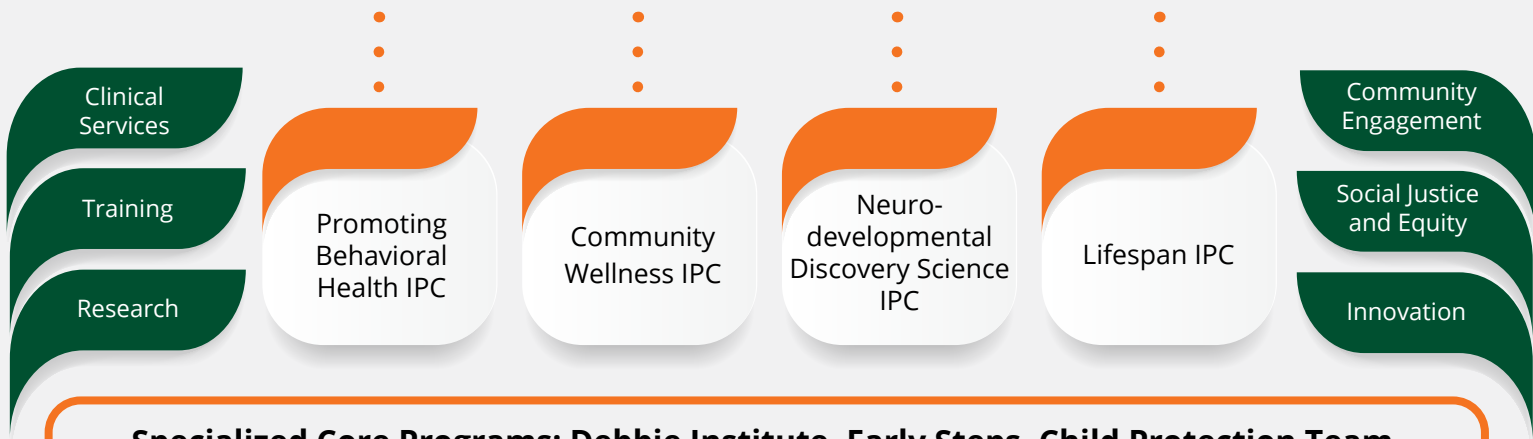
Mailman Advisory Committee

- Susan Ali
- Jairo Arana
- Rochelle (Shelly) Baer
- Kathy Balaban
- Carol Brady-Simmons
- Ire Diaz
- Enrique Escallon
- Ava Goldman
- Hillary Jackson
- Maricela Jimenez
- Roni Leiderman
- Elana Mansoor
- Ernie Martinez
- Farrah Meme
- Elizabeth Perkins
- Elma Pierre
- Stephanie Preshong-Brown
- Jason Rose
- Juliet San Juan
- Kent Schombr
- Jean Sherman
- Ann Siegel
- Linda Starnes
- Graylyn Swilley Woods
- Nandy Torres Burling
- Alicia Walford
- Daniel Armstrong
- Jason Jent
- Michelle Schladant
- Roselyne Antao
- Cristina Pujol



Executive Leadership and Steering Committee Mailman Advisory Council

Interprofessional Collaborative (IPC) Leads and Co-Leads



Specialized Core Programs: Debbie Institute, Early Steps, Child Protection Team, Linda Ray Intervention Center, Accredited Disciplinary Training Programs

Promoting Behavioral Health:

Develop opportunities for integrated behavioral healthcare for children and their families.

Community Wellness:

Build capacity for improving children’s health and wellness within our community.

Neurodevelopmental Discovery Science:

Develop cross-University basic science program that optimizes synergy and impact.

Neurodevelopmental Intervention Science:

Develop capacity for enhancement of early social emotional- development, communication, and literacy

Lifespan:

Develop innovative solutions for challenges of adolescents and young adults with I/DD and chronic illnesses.

Education and Training

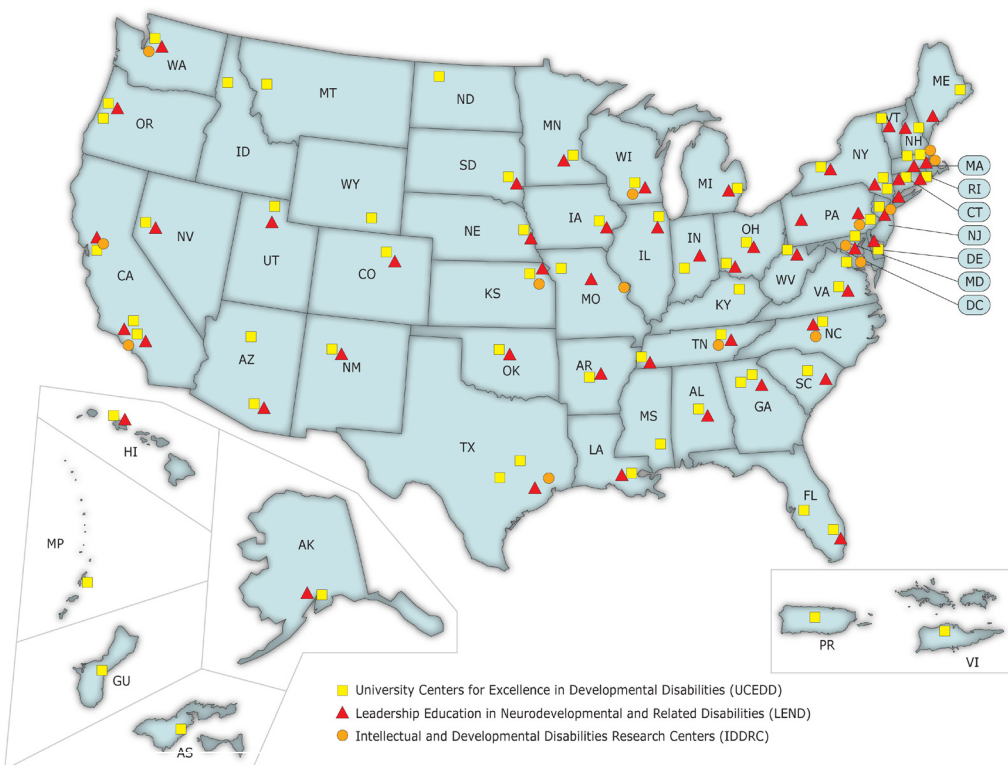
Leadership in Education in Neurodevelopmental Disabilities (LEND)



The **Leadership Education in Neurodevelopmental Disabilities (LEND)** program at The Mailman Center is a comprehensive training initiative catering to graduate students, doctoral interns, residents, and fellows across more than 17 disciplines. Renowned as one of the oldest, largest, and most diverse **LEND** program in the US, it annually trains a cohort of over 100 trainees from diverse racial, ethnic, and gender backgrounds, representing over 90 universities nationwide.

Approximately 25% of all Hispanic/LatinX **LEND** trainees nationwide receive their **LEND** training at the Mailman Center. Spearheaded by professionals from disciplines, including

AUCD **LEND** map highlighting the program across the United States.





1 of 60

LEND Programs Nationwide

17

Training Disciplines
Represented Social Identities

100+

Trainees Per Year

60%

Of Trainees are From
Underrepresented Social

90

Different Universities
Represented in Our Program

15K+

Professional and Community
Members Trained



LEND Outcomes

98%

Of LEND Trainees Satisfied With
Knowledge and Skills Acquired.

60%

Of LEND Graduates Work in
Disability-Related Field of Work.

50%

Of Student Emerging Leaders Graduates Engage
in Community Service and Advocacy.

80%

Of LEND Graduates Report Using Skills Learned in LEND
Two Years Following Training Completion.



Leaders of Tomorrow: Leadership Pipeline Programs



Self-Advocate Leadership Skills Training Program (Project SALT)

Project SALT is a transformative three-day program tailored for adults with disabilities. Its core objective is to equip participants with effective advocacy strategies, enabling them to advocate for themselves and others while fostering systemic change. By nurturing a vibrant community of individuals, Project SALT endeavors to cultivate a cohort of advocates poised to effect positive change at both the individual and societal levels.



Student Emerging Leaders Program (SELF)

is a three-month after-school leadership experience to inspire high school students to become future leaders and advocates for a more inclusive society. Cohort 6 unveiled their group advocacy project, 'Abilitoons.' This initiative sought to redefine media portrayal of individuals with disabilities. Engaging high school students, the project aimed to challenge stereotypes in children's animated media by actively incorporating individuals with disabilities as animators, screenwriters, actors, and cartoonists. The overarching objective was to empower future generations and foster a more positive representation in media.

Emerging Transformational Leadership Program (ETLP)

is an early to mid-level professional leadership training program. DASH (Disability Awareness and Sensitivity in Healthcare) is the advocacy project conceived by Cohort 7. Presently, the Mailman Center is in the stages of implementing this initiative. DASH features a succinct online training tailored for medical students and professionals. The objective is to furnish them with the necessary knowledge and skills to improve the healthcare journey for patients with disabilities and their families. Noteworthy is the authentic portrayal of characters with disabilities in the training video, enacted by individuals with disabilities themselves.



CLINICAL SERVICES

In 2023, more than 15,000 children and families received clinical services in Mailman Center programs- more than half of these were in community settings. These include assessment and diagnostic services, often with interdisciplinary teams, therapeutic and navigation services, and prevention services. Children are seen in the Mailman Center, but also in early childhood centers, schools, community centers, and by telehealth.

Significant progress has been achieved in the Behavioral Health Screening initiative, including the implementation of a comprehensive electronic screening tool in two pediatric primary care practices: UHealth Pediatrics Kendall and UHealth Pediatrics at Desai Seth Medical Center.

In the following sections, we highlight four of our more than 30 clinical service programs to illustrate the breadth of services available to children and families with neurodevelopmental disabilities and other chronic diseases and conditions.

Clinical Services and Programs

- Assistive Technology (AT) Program
- Barton G Clinic-Otolaryngology (Cochlear implant)
- Pediatric Audiology Clinic
- Child and Adolescent Psychiatry Outpatient Clinic
- Childhood Cancer
- Child Protection Team
- Cleft Lip and Cleft Palate Program
- Concussion Clinic
- Debbie Institute
- Developmental and Behavioral Pediatric Clinic
- Developmental Services Program
- Diabetes Clinic
- Down's Syndrome Clinic
- Early Discovery
- Early Steps
- Families First
- Family Navigator Program
- Fragile X Clinic
- Healthy Start Coalition
- HealthySteps
- Hematology/Oncology
- Hemophilia Clinic
- Injury Free Coalition
- Interdisciplinary Developmental Evaluation Service (IDES)
- International Developmental Evaluation and Assessment (IDEAS)
- Jump Start
- Parent-Child Interaction Therapy
- Parent Club
- Pediatric Psychology Clinic
- Pediatric Speech-Language Pathology
- Pulmonary Clinic
- Psychological Assessment Service (PAS)
- School Health
- Sickle Cell Disease Clinic
- Social Work Clinic
- South Florida Fragile X Clinic
- Teacher-Child Interaction Training
- Tics and Tourette's Center Clinic



Medical Genetics

The Division of Genetics was one of the original specialty divisions of the Mailman Center. The program offers laboratory diagnostic services, prenatal screening, genetic counseling, and therapeutic services. The original director of the Division, Herbert Lubs, MD, PhD, was the first to describe the fragile X chromosome, and early leaders establish unique regional programs for Tay Sacs and other genetic conditions. Over the years, the Division of Genetics evolved into a University center and then department, and today the Dr. John T. Macdonald Department of Human Genetics and its partner Hussman Institute for Human Genomics are recognized as among the top three genetics programs in the United States. The connection with the Mailman Center has never waned- today we have the only lifespan programs for Fragile X and Down Syndrome in South Florida, and are developing a new program for Williams Syndrome to start in early 2025. We also have an eye on the future, working together to use genetic sequencing to identify children with rare diseases in the neonatal intensive care unit, expanding clinical application of genetic sequencing as a clinical tool, and exploring opportunities in the new world of gene therapies for rare diseases.

Early Steps (Part C)

The Miami-Dade North Early Steps Program offers multidisciplinary assessments and early intervention services for infants and toddlers (0- 3 years) with developmental delays or at risk for delays. Our caregiver coaching model empowers caregivers to support children's learning during everyday routines.



Early Steps

Early Intervention

Services to North Dade
Infants/Toddlers

About 4,000

Families Served
Each Year

Debbie School

Research Partnership

Statewide Training

Embedded Practices and
Intervention With Caregivers



Debbie Institute

The Debbie Institute (also known as the Debbie School) was built in honor of Debbie Segal, the granddaughter of Abraham Mailman and a child with cerebral palsy. Founded as a model early childhood development laboratory school, the Debbie School has evolved into one of the nation's premier models for inclusion in the early childhood setting. In addition to providing interdisciplinary developmental services, the Debbie Institute continues to serve as a laboratory for innovative research involving advanced technology to understand language development and social interaction in the inclusive setting.



27

Workshops and Family Events

1,541

Participants

222

Family Events

90

Professionals

71

Parent Engagement

1,158

Community Professionals



Auditory/Oral Program

- Newborn Hearing Screening
- Inclusive Classroom Structures
- Broad Collaboration



Debbie Institute: Weeks Educational Center

Former Chair of the Board of Trustees, Marta Weeks Wulf, and her husband, Austin Weeks, initiated the Weeks Educational Center in the 1980s. The center, established in 2015, focuses on supporting children with hearing loss and disabilities. Over the years, it has positively impacted over a thousand children in the Miami community.

In the past year, the center provided vital support to 217 children and families, offering educational supplies and assisting teachers. The Auditory Oral Education Program provided intervention for 32 deaf or hard-of-hearing children, emphasizing inclusive learning. The B-2 Early Education Program accommodated 62 children with developmental disabilities, offering inclusive classrooms and home-based services for 4 children. This comprehensive program includes speech, physical, and occupational therapy, fostering growth through collaboration with families. Additionally, the Early Childhood Education Program involves 54 children aged from birth to four years, without disabilities, in inclusive classrooms within the Auditory Oral Education Program or the B-2 Early Education Program.

Marta Weeks Wulf Legacy



The Weeks Educational Center, supported by endowment funds, equips children with hearing loss for success in listening and speaking. Upon completing their time at the Debbie School, they seamlessly transition into general education at their home schools. Similarly, children with disabilities undergo intensive intervention and therapies, unlocking their full potential. Many of these children actively participate in general education programs post-Debbie School.

Marta Weeks Wulf's legacy, deeply rooted in the Debbie School, is a testament to the Weeks family's boundless generosity. The community is forever grateful for their enduring impact.

Parent Child Interaction Therapy



The Mailman Center has been a leader in advancing the use of an evidence-based treatment program, Parent-Child Interaction Therapy (PCIT), particularly with its application to families of children with disabilities. We are one of the largest PCIT clinics in the world, serving 360 families per year. Our clinical team is an international leader in promoting the use of telehealth for service delivery. Program efforts now are on improving the use of technology and artificial intelligence through the use of virtual



reality and online applications to increase reach of the program for families who are geographically distant (including international) and do not have access to face-to-face services.

Parent Child Interaction Therapy





Research Highlights

67

**Active Research
Projects**

53

**Published Journal
Articles**

107

**Conference
Presentations**

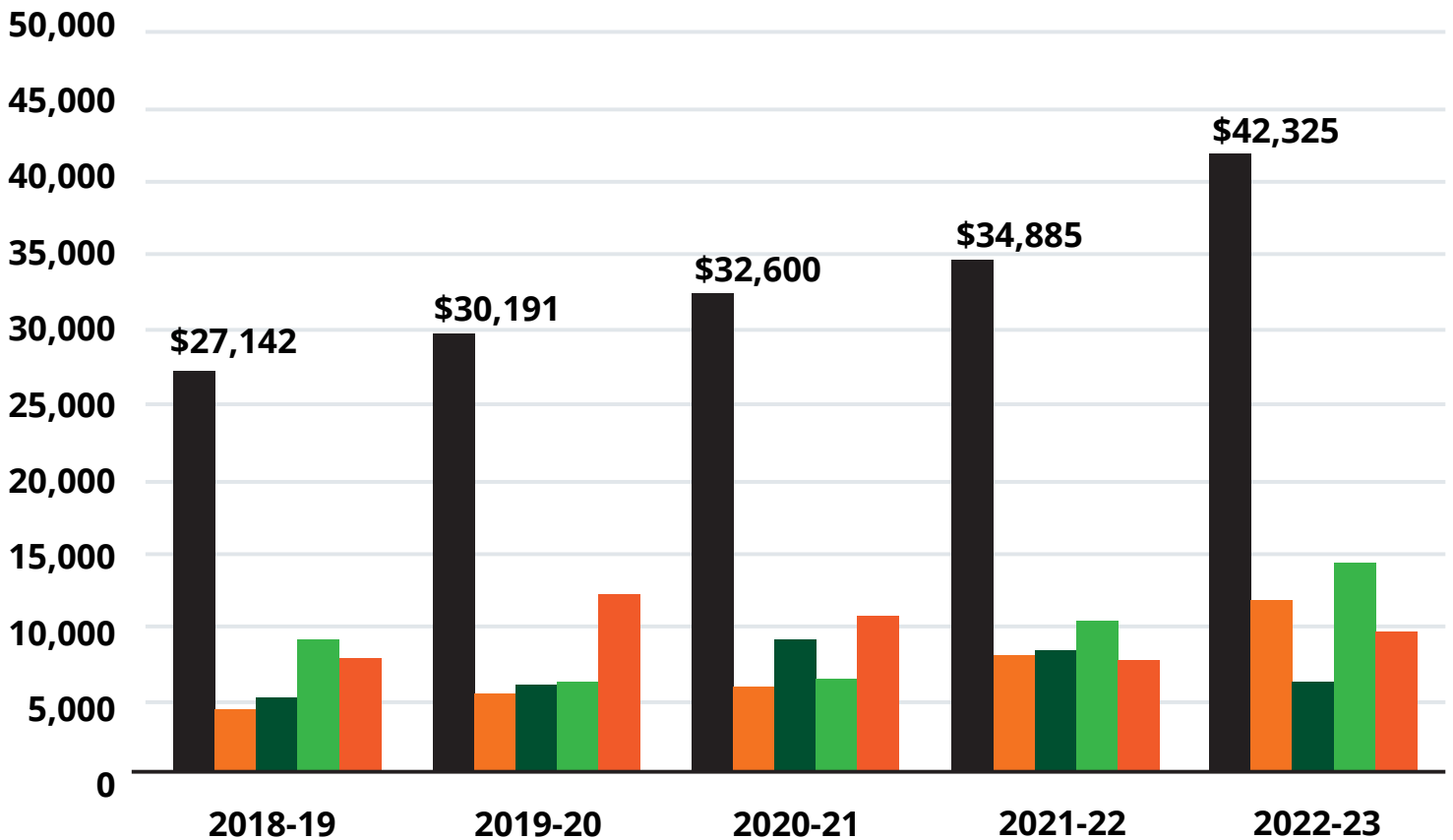
85

**Total Funded
Grants**

At the forefront of advancing child health and well-being, the Mailman Center is pioneering groundbreaking research that promises to transform the lives of children and families. Our multidisciplinary team of experts is pushing the boundaries of scientific knowledge, exploring innovative solutions to complex developmental challenges. From cutting-edge studies on early brain development and interventions for neurodevelopmental disorders to research on health disparities and the social determinants of child health, the Mailman Center is at the vanguard of translating research findings into evidence-based practices and policies. Our commitment to excellence, collaboration, and community engagement drives our mission to create a brighter future for all children, empowering them to reach their fullest potential.

From an initial total budget of approximately \$6M when the Mailman Center opened in 1971, the leveraged funding from grants, contracts, philanthropic donations, and payment for services has grown year after year. Since our reorganization of the Center's structure in 2014, we have seen an increase from approximately \$21M to over \$42M in total leveraged funding obtained by Mailman Center faculty and staff.

Annual Leveraged Federal, State, and Local Funding for the Mailman Center (2018-19 through 2022-23)



- TOTAL**
- Federal**
- State**
- Local**
- Other**

5-YEAR TOTALS

Federal: \$36,284,000

State: \$35,714,000

Local: \$47,006,000

Other: \$48,138,000

Total: \$167,143,000



Leveraged Funding includes grants and contracts awarded to full-time and affiliated faculty of the Mailman Center, with prime awards housed in the primary academic School/Department of the faculty member.

2022 Richard R. Rubin AWARD



Dr. Alan Delamater, honored with the prestigious Richard R. Rubin Award by the American Association, stands as a beacon in the field of diabetes research. With decades of dedicated work, Dr. Delamater has spearheaded groundbreaking research into the behavioral aspects

of diabetes, particularly focusing on children and adolescents. His pioneering efforts have not only shed light on psychosocial and behavioral factors influencing diabetes management but have also led to tangible improvements in care and treatment strategies, addressing

health disparities among vulnerable populations. Dr. Delamater's profound contributions, including his work in Type 1 diabetes among adolescents and obesity prevention in ethnic minority children, exemplify his unwavering dedication to advancing diabetes research and enhancing the lives of those affected by this condition. As a recipient of one of the highest honors in the field of diabetes research, Dr. Delamater's legacy underscores the transformative impact of his work and serves as an inspiration to future generations of researchers and clinicians.





LENA recorder vest that captures child vocalizations

The crucial role of inclusion classrooms in promoting social interaction and vocalization skills among children who are hard of hearing was a focal finding of this research, conducted in the Debbie School classrooms. Observed reciprocal patterns of peer speech in these settings are essential for developing language skills and abilities in all children, highlighting the value of inclusive education for fostering communication among children with and without hearing loss.



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Early Childhood Research Quarterly

journal homepage: www.elsevier.com/locate/ecresq



Reciprocal patterns of peer speech in preschoolers with and without hearing loss



Lynn K. Perry^{a,*}, Samantha G. Mitsven^a, Stephanie Custode^a, Laura Vitale^a, Brett Laursen^b, Chaoming Song^c, Daniel S. Messinger^{a,d}

^a Department of Psychology, University of Miami, 5665 Ponce de Leon Blvd, 33146, Coral Gables, FL

^b Department of Psychology, Florida Atlantic University, Davie, FL, USA

^c Department of Physics, University of Miami, Coral Gables, FL, USA

^d Department of Pediatrics, Department of Electrical & Computer Engineering, Department of Music Engineering, University of Miami, Coral Gables, FL, USA

ARTICLE INFO

Article history:

Received 30 April 2020

Revised 26 May 2021

Accepted 8 February 2022

Available online 7 March 2022

Keywords:

Hearing loss

Peer interaction

Objective measurement

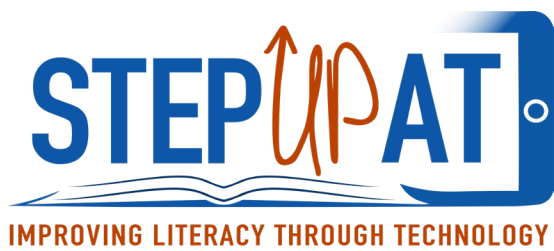
Vocalizations

Language abilities

Inclusive preschools

ABSTRACT

Children with hearing loss often attend inclusive preschool classrooms aimed at improving their spoken language skills. Although preschool classrooms are fertile environments for vocal interaction with peers, little is known about the dyadic processes that influence children's speech to one another and foster their language abilities and how these processes may vary in children with hearing loss. We used new objective measurement approaches to identify and quantify children's vocalizations during social contact, as determined by children's proximity and mutual orientation. The contributions of peer vocalizations to children's future vocalizations and language abilities were examined in oral language inclusion classrooms containing children with hearing loss who use hearing aids or cochlear implants and their typically hearing peers. Across over 600 hours of recorded vocal interactions of 29 2.5–3.5 year olds (16 girls) in 3 cohorts of children in a classroom, we found that vocalizations from each peer on a given observation predicted a child's vocalizations to that same peer on the subsequent observation. Children who produced more vocalizations to their peers had higher receptive and expressive language abilities, as measured by a standardized end-of-year language assessment. In fact, vocalizations from peers had an indirect association with end-of-year language abilities as mediated by children's vocalizations to peers. These findings did not vary as a function of hearing status. Overall, then, the results demonstrate the importance of dyadic peer vocal interactions for children's language use and abilities.



Step Up AT is significant for its investigation into how increased knowledge of assistive technology (AT) among teachers and support staff impacts preschoolers with disabilities in inclusive classrooms. We have demonstrated that AT is a valuable tool for promoting inclusion and improving learning outcomes for children with disabilities in inclusive settings. These findings highlight the importance of providing educators with the skills and resources needed to effectively use AT, leading to a more inclusive educational environment for students with disabilities.

JOURNAL OF EARLY CHILDHOOD TEACHER EDUCATION
<https://doi.org/10.1080/10901027.2022.2099325>

Routledge
Taylor & Francis Group

Promoting a culture of inclusion: impact of professional development on teachers' assistive technology practices to support early literacy

Michelle Schladant , Lydia Ocasio-Stoutenburg , Christina Nunez^a, Monica Dowling^a, Rebecca Shearer , Jhonelle Bailey , Austin Garilli^a, and Ruby Natale^a

^aDepartment of Pediatrics, United States of America; ^bDepartment of Psychology, United States of America

ABSTRACT
 Despite the efficacy of assistive technology (AT), many children with disabilities do not have access to AT and are not fully benefiting from inclusive preschool education. The current mixed-methods study examined a multi-faceted professional development (PD) intervention aligned with the CEC's Early Intervention/Early Childhood Special Education (EI/ECSE) Standards to increase general early childhood education (ECE) teachers' use of AT to promote early literacy in young children with disabilities. The 24-week PD intervention included: (a) online modules, (b) coaching; and (c) a classroom kit of AT devices. Participants were six lead teachers, 10 teacher aides, and 34 children from six inclusive classrooms in two preschools. Quantitative methods included pre-and post- surveys, early literacy assessments, and classroom observations. Qualitative analysis explored data from focus groups and input from teacher adherence forms. Results revealed that (a) teachers' AT knowledge, positive beliefs, and use; and (b) children's use of AT and early literacy skills significantly increased pre- to post-intervention. Qualitative findings revealed themes relating to how teachers benefitted from the PD and the impact of AT on teacher instruction and child learning. Findings support innovative PD practices to build capacity of practitioners implementing AT as a responsive instructional strategy in inclusive classrooms.

ARTICLE HISTORY
 Received 15 December 2021
 Accepted 21 June 2022





Article

Infant Nutrition and Other Early Life Risk Factors for Childhood Obesity According to Disability Status

Melissa K. Blake ^{1,*}, Ruixuan Ma ², Erika Viana Cardenas ¹, Parisa Varanloo ¹, Yaray Agosto ¹, Carolina Velasquez ¹, Kathryn A. Espina ¹, Joanne Palenzuela ¹, Sarah E. Messiah ^{3,4} and Ruby A. Natale ¹

¹ Department of Pediatrics, University of Miami School of Medicine, Mailman Center for Child Development, 1601 NW 12th Ave, Miami, FL 33136, USA; epv11@med.miami.edu (E.V.C.); pcv177@miami.edu (P.V.); yagosto@med.miami.edu (Y.A.); cxv308@miami.edu (C.V.); kxe258@med.miami.edu (K.A.E.); jpalenzuela@miami.edu (J.P.); rnatale@med.miami.edu (R.A.N.)

² Division of Biostatistics, Department of Public Health Science, University of Miami School of Medicine, 1120 N.W. 14th Street, Miami, FL 33136, USA; rxm1424@med.miami.edu

³ University of Texas Health Science Center at Houston School of Public Health, 2777 North Stemmons Freeway, Suite 8400, Dallas, TX 75207, USA; sarah.e.messiah@uth.tmc.edu

⁴ Center for Pediatric Population Health, University of Texas Health Science Center at Houston School of Public Health, 2777 North Stemmons Freeway, Suite 8400, Dallas, TX 75207, USA

* Correspondence: mkb119@miami.edu; Tel: +1-3052436631



check for updates

Citation: Blake, M.K.; Ma, R.; Cardenas, E.V.; Varanloo, P.; Agosto, Y.; Velasquez, C.; Espina, K.A.; Palenzuela, J.; Messiah, S.E.; Natale, R.A. Infant Nutrition and Other Early Life Risk Factors for Childhood Obesity According to Disability Status. *Nutrients* 2023, 15, 4394.

Abstract: One in five preschool-aged children in the United States is obese, and children with disabilities are significantly impacted. This study aimed to determine the association between age at solid food initiation and obesity prevalence in preschool-aged children while considering disability status, ethnicity, gestational age, and birth weight. Analysis was conducted on a sample of 145 children aged 2 to 5 years who were enrolled in ten childcare centers. Parents completed a survey assessing disability status, race and ethnicity, birth weight, gestational age, and age of solid food initiation. Height and weight were collected concurrently. Multivariable logistic regression models generated the odds of developing obesity based on age at solid food initiation, disability status, ethnicity, gestational age, and birth weight. There was no significant difference in the odds of being obese based on age at solid food introduction. Children with disabilities (OR = 0.17, 95% CI 0.04–0.6, $p = 0.01$) and children born preterm (OR = 0.28, 95% CI 0.08–0.79, $p = 0.03$) had significantly lower odds of being obese. Hispanic children (OR = 4.93, 95% CI 1.91–15.32, $p = 0.002$) and children with higher birth weights (OR = 1.47, 95% CI 1.17–1.92, $p = 0.002$) were more likely to be obese. With pediatric obesity rates continuing to rise, these findings can inform future intervention efforts.

The relationship between nutrition, childhood disabilities, and obesity is critical to development for all children, those with or without neurodevelopmental disabilities. Our work in this area emphasizes the importance of understanding how disability status influences the risk of childhood obesity. We found that higher birth weights were associated with a higher percentage of childhood obesity, while lower birth weights were associated with a lower percentage for childhood obesity. These findings underscore the complexity of factors contributing to childhood obesity and suggest the need for tailored interventions for children with disabilities.



Community Engagement



Since 1989, the center has been at the forefront of extending services directly into communities, showcasing its dedication to accessibility and inclusivity. This forward-thinking approach has had a profound impact on improving care and support for children with disabilities.

The Mailman Center's faculty and staff demonstrate a steadfast commitment to community engagement, exemplified by pioneering programs such as Families First and Early Discovery. These initiatives have continuously adapted to address evolving healthcare needs and to surmount barriers to care, particularly for children with disabilities. Involving the community ensures a user-centric approach, underscoring the center's dedication to inclusivity.



The UM PCIT (Parent Child Interaction Therapy) Program and ConnectFamilias have expanded their longstanding partnership with a telehealth PCIT plus Natural Helper Program. Families opting for this added support receive weekly check-ins from a natural helper, offering guidance on implementing skills with their child and addressing treatment barriers or other needs (e.g., food, housing, vocational training). Those choosing Natural Helper services complete treatment at a notably higher rate than those receiving PCIT alone. This collaborative effort aims to devise innovative approaches to enhance family access to and completion of evidence-based services.





Sant La is a non-profit organization working with families in the Northeast Corridor (with a large Haitian-American and Caribbean community). Sant La's mission to "empower, strengthen, and uplift South Florida's Haitian community by providing free access to information and existing services to ensure its successful integration." Sant La is collaborating with the Mailman Center to create an asset-based, resilience-focused tool that integrates strength-based indicators for early childhood systems serving children of color.



The Overtown Children & Youth Coalition (OCYC) is a nonprofit organization working with multiple community-based organizations within the Overtown community. In 2021, the Community Wellness IPC helped OCYC obtain a grant to enhance the developmental skills of 3-year-olds in Overtown, resulting in the hiring of a shared Community Connector to identify at-risk children and link them to community resources.

2023 Strategic Planning



In 2014, the Mailman Center undertook a major strategic planning initiative that led to the reorganization of the Center into Interprofessional Collaboratives, established our vision of improving lives through innovation, impact, and connection, and established our priority focus on the intersection of disability and diversity. In 2023, we initiated the second 10-year strategic planning process and expect to approve our updated strategic plan by the end of 2024. To date, over 60 Mailman Center faculty, staff, trainees, community partners, and family and self-advocates have contributed to the development of our strategic plan.

WHAT'S NEXT?

01

Develop, implement, and evaluate an interprofessional training curriculum focused on social justice, diversity, equity, and inclusion in disability.

02

Develop a culture of community based participatory principles in training, clinical service, and research.

03

Innovate and evaluate the use of technology to increase access and effectiveness of services for children with disabilities and their families.



Years of
Innovation
Impact
Connection...
What's Next?

2021-2023

ANNUAL REPORT

Mailman Center for Child Development

1601 N.W. 12th Ave., Miami, FL 33136

MailmanCommunications@Med.Miami.edu

MailmanCenter.org | (305) 243-6801



@UMailmanCenter



@UMailmanCenter



@MailmanCenter

