

Department of
Family & Preventive Medicine
Research & Evaluation Division

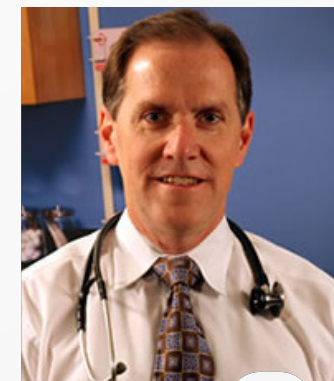


UAMS®

Family & Preventive Medicine

Families Matter...

The **Department of Family & Preventive Medicine (DFPM)** is committed to the idea that thriving and healthy families are central to a thriving and healthy state and nation. This year the **DFPM Research and Evaluation Division (RED)** has focused their efforts on addressing the physical, mental and emotional needs of families in Arkansas and across the nation. Each part of the **RED** puzzle fits together to address the needs of Arkansas families and each discipline within the **DFPM** family strives to bring hope and health to families within the state of Arkansas and beyond.



Daniel Knight M.D., FAAFP
DFPM Chairman

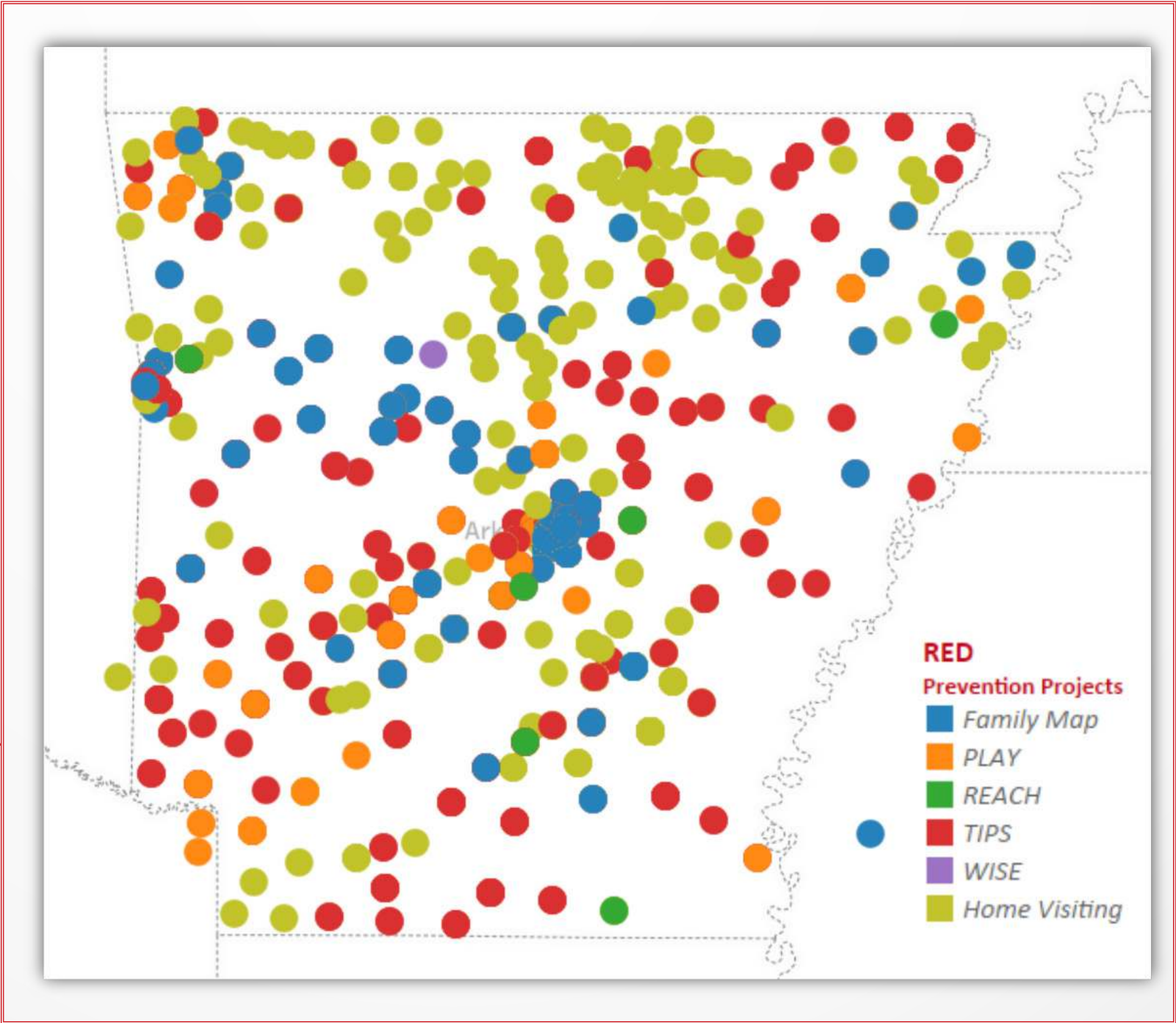


We go where the families are...

The **Department of Family & Preventive Medicine** cares about the people of Arkansas and are committed to BEING where families live. This year, **DFPM Research and Evaluation Division (RED)** researchers have continued to expand and to find creative and meaningful ways to serve the families of Arkansas. From the urban centers to the most rural and "hard to reach" communities, **DFPM RED** continues to serve the physical, mental, and emotional needs of Arkansas families through initiatives and partnerships that range from childhood nutrition to training and mentoring for early childhood educators.

This year
our projects served
out of 75 Arkansas counties.

72



ACE



"Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?" * Q8.

Q5. "Did you often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?" *

"Were your parents ever separated or divorced?" * Q6.

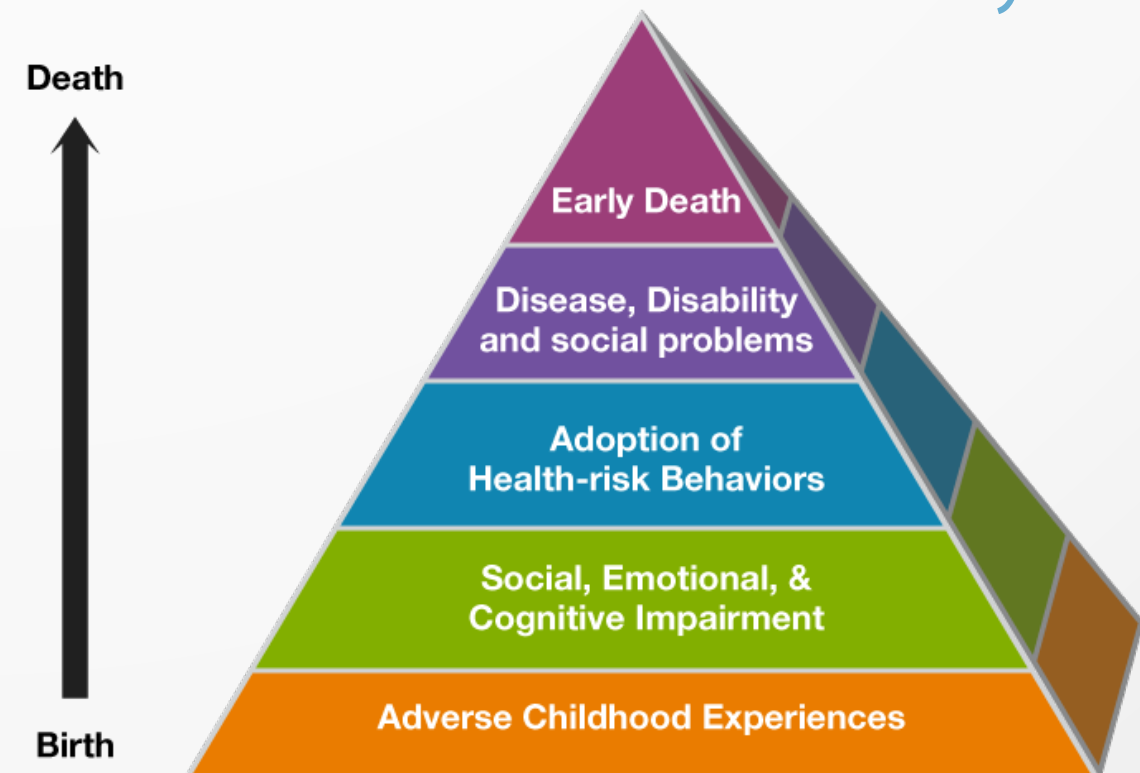
Q1. "Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you?" *

*From the Adverse Childhood Experience (ACE) Questionnaire WWW.CDC.GOV

ACEs are adverse childhood experiences that harm children's developing brains so profoundly that the effects show up decades later; they cause much of chronic disease, most mental illness, and are at the root of most violence. "ACEs" comes from the **CDC-Kaiser Adverse Childhood Experiences Study**, a groundbreaking public health study that discovered that childhood trauma leads to the adult onset of chronic diseases, depression and other mental illness, violence and being a victim of violence. The **ACE Study** has shown the strong link these experiences during early childhood have on adult health and well-being in adulthood. Poor health, social struggles, high-risk behaviors, and even early death have been traced back to these early experiences.

RED faculty have **contributed to this research** with early detection efforts and studies of the mechanisms that link ACEs to development. **RED** faculty have translated **research-based knowledge** into practice with community-based prevention projects. Our training programs target professionals in community-based settings such as early care and education, mental health, home visits, shelters and substance abuse treatment. While we implement training and services, we integrate critically needed research.

CDC Research Based ACE Pyramid





Training & Translational Research

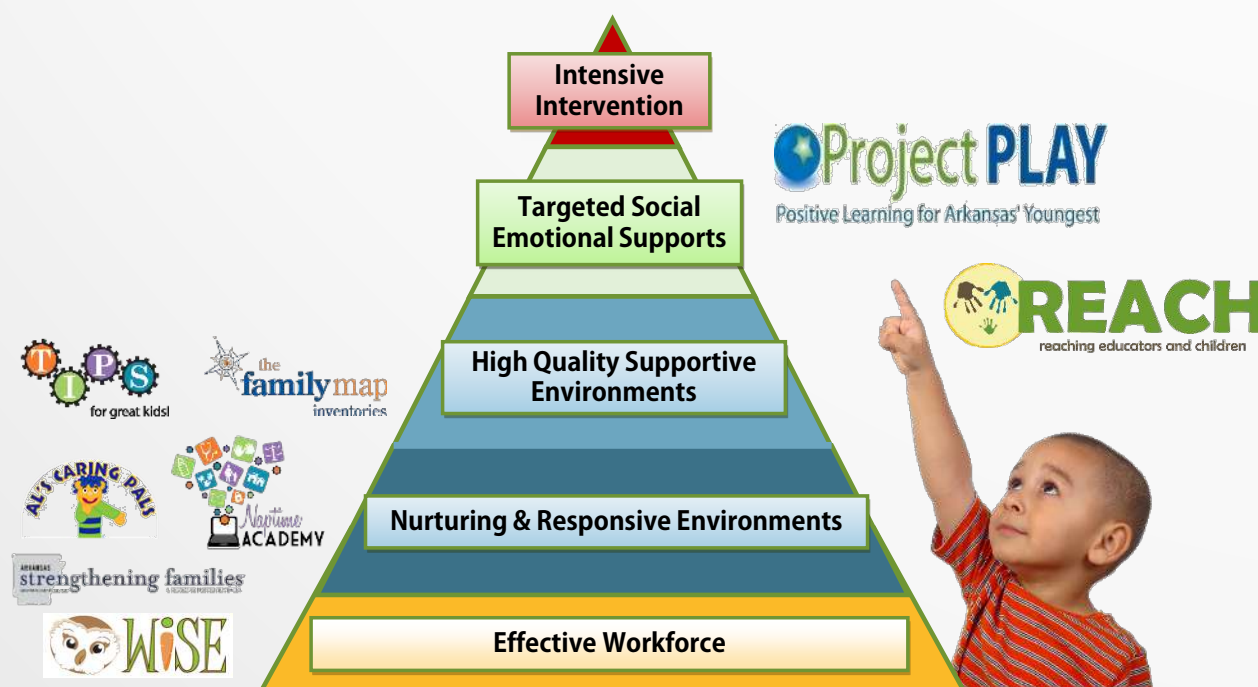
RED prevention projects map to the Teaching Pyramid. The work translates research results into evidenced-based training in community-based settings such as early care and education, mental health, home visits, shelters, and substance abuse treatment.

INNOVATIVE Preventive Medicine



Leanne Whiteside-Mansell EdD.
Director DFPM-RED

This year we operated
8 major prevention projects combining educational community outreach and research.



Screen for Adverse Childhood Experiences

The Family Map Inventories, developed by **RED**, are semi-structured interviews that assess aspects of the home environment known to be associated with child well-being. Implemented by early educators, home visitors and other helping professionals, it can be used to provide a screen for ACES before the age of 5.* This year the project provided training to implement the Inventories and to jump-start parent-teacher relationships in Head Start, home visiting, and community-based early child care programs.

Programs in **Arkansas, Arizona, Louisiana, Delaware, New Mexico, Maryland** and **Indiana** used the Family Map Inventories this year.

In Arkansas this year the Family Map team trained **478** Early Childhood Professionals impacting nearly **10,000** children's lives.

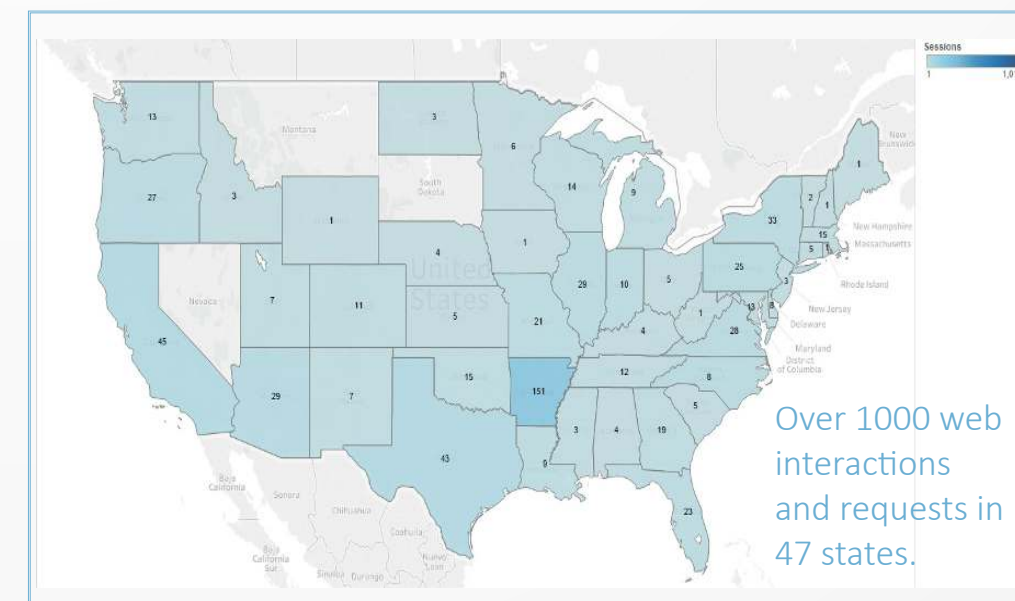
This year Family Map developed new tools to support programs for strong implementation and added support for their first year.

- Family Map Technical Assistance Tool Kit
- New interactive Family Map Refresher training via video animation



This year...

RED faculty, in collaboration with **UAMS Bioventures**, established a new 'spin off' company allowing **The Family Map Inventories** be offered to families and early childhood educators across the United States!



Over 1000 web interactions and requests in 47 states.

ACE Connection...

- screen for risks
- build on family strengths
- determine family goals

<http://www.thefamilymap.org/>

McKelvey, L. M., Whiteside-Mansell, L., Conners-Burrow, N.A., Swindle, T., & Fitzgerald, S. (2016). Assessing adverse experiences from infancy through early childhood. *Child Abuse and Neglect*, 51, 295-302. DOI: 10.1016/j.chiabu.2015.09.008

Family Obesity Intervention

We Inspire Smart Eating (**WISE**) is a nutrition education curriculum designed to be integrated in classrooms across a school year. This work was an outcome of the Arkansas Grow Health Study funded by USDA-AFRI grant completed in 2016. **RED** is now disseminating the use of this innovative program. Three educational components are delivered through the **WISE** curriculum:

- Classroom Curricula
- Family Engagement
- Educator Training

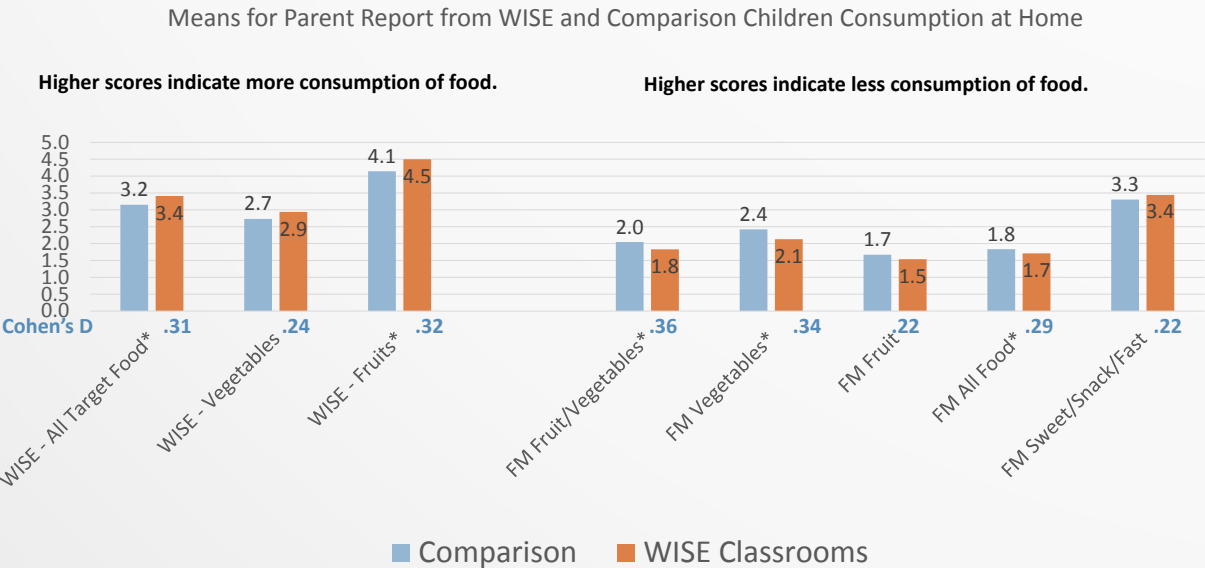
WISE also provides materials to support parents in their efforts to make good food choices at home. Our research shows that **WISE** participation changes eating habits at home and children increase their fruit and vegetable consumption.



<http://windywise.com/>



Children exposed to **WISE** had healthier consumption for 5 of 8 **WISE** foods at home!



Ground-Breaking Early Childhood Mental Health Consultation

Project PLAY is an Early Childhood Mental Health Consultation program designed to support the healthy social and emotional development of young children, reduce challenging behaviors and prevent pre-school suspension and expulsion. **Project PLAY** partners with community mental health centers to place specially trained mental health professionals in early care and education settings to offer consultation to teachers. This includes services such as training, modeling effective classroom practices, child screening, developing individualized approaches to managing challenging child behavior and identifying the needs of children and families and making referrals.

The **Project PLAY** team is lead by UAMS Faculty member and **RED** Assistant Director, Nikki Edge, Ph.D. Dr. Edge has a background in educational psychology and research with focus on at risk children and families and is widely published on topics of maternal substance use, depression and traumatic events such as abuse or neglect.



Dr. Nikki Edge

<http://www.familymedicine.uams.edu/projectplay>

This year:

- **Project PLAY**'s innovative approach was specifically highlighted in federal reports from the Administration for Children and Families and the White House 2016 progress report on the My Brother's Keeper initiative.
- **Project PLAY** joined key stakeholders and State policymakers in the development and implementation of the State Work Group for the Prevention of Suspension and Expulsion
- **Project PLAY** has expanded its service areas to include child care facilities in 10 counties around the state, more than doubling the number of certified early childhood mental health consultants in Arkansas.

Results from the evaluation study examining **184** teachers who completed consultation show strong evidence of improvements in teacher-child interactions and improvements in children's behavior



In the past year, members of the **Project PLAY** team have made a total of **17** presentations at conferences and have established their credentials as national leaders in the area of Early Childhood Education and the healthy social and emotional development of young children.

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Training for Hard-to-Reach Child Care

REACH provides teacher training in social-emotional development to programs that find typical professional development hard to access, either because they are in rural areas or because of inconvenient training times. REACH provides two director workshops and a series of 6 teacher workshops on-site in Arkansas early care and education programs. This year we trained 429 participants in 39 facilities in 22 Arkansas counties. A total of 2237 children were served by teachers receiving REACH training last year.

This year our published research describes the development, implementation, and preliminary evaluation of Reaching Educators and Children (REACH).^{*} We used teacher surveys and pre/post classroom observations. There were 139 toddler and preschool teachers included. Surveys showed teachers were highly satisfied with the training and materials. Observations confirmed significant improvement in three areas:

- Increased sensitivity in teachers' interactions with children
- Increased teacher use of strategies that support children's healthy social and emotional development
- Increased pro-social behaviors in children

The findings suggest REACH is effective in its goal of enhancing teacher ability to support social-emotional development in young children.

<http://www.familymedicine.uams.edu/reach>



Last year we served...

2237
Children

429
Educators

39
Facilities

22
Counties

On-Demand Parenting Education

The TIPS program for early childhood professionals provides simple but practical strategies for building relationships with parents, responding to parents' health and development concerns, and tailoring parenting information to individual families. Staff can share tip cards with parents on 200 topics from bed-wetting and tantrums to alcohol abuse and parent depression.

This year, TIPS developed new tools to help programs sustain TIPS, including Post-Training Web Animation Modules, that allow staff to watch a sample delivery of a tip to a parent while reviewing training principles.

TIPS developer and associate professor **Patti Bokony, Ph.D.** retired this year. While Dr. Bokony's leadership and vision will be missed, the team continues their work under the leadership of Nikki Edge, Ph.D. Continuing demand for dissemination of the TIPS program has resulted in increased training in Arkansas and beyond!

<http://www.tipsforgreatkids.com/>

Naptime Academy™

To eliminate training barriers for rural and busy childcare providers, the RED developed Naptime Academy™, a library of e-learning modules, allowing staff to access training any time by computer or mobile device.

The last year has seen the continued growth of Naptime Academy as the first RED program to function as a stand-alone Entrepreneur company.

The launch of the new website:

<http://naptimeacademy.com/>

The Naptime website, launched in January 2015, includes a proprietary learning management system, e-commerce, and reporting and has further connected the program to childcare providers. This year has seen a specific emphasis in topics targeted at limiting expulsions in early childhood centers.



^{*}Conners-Burrow, N., Patrick, T., Kyzer, A., McKelvey, L. (2016). A preliminary evaluation of REACH: Training early childhood teachers to support children's social and emotional development. Early Childhood Education Journal, doi: 10.1007/s10643-016-0781-2.

Home Visiting Research

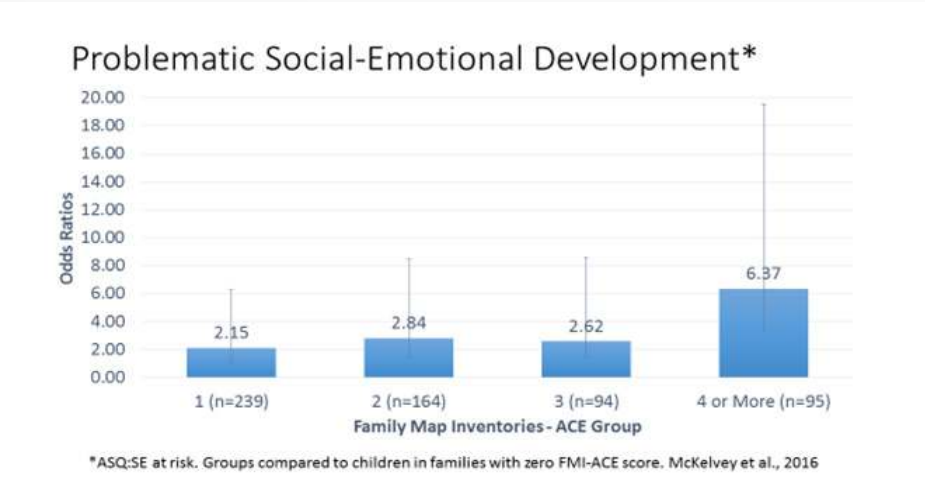
The national Maternal, Infant, and Early Childhood Home Visiting (MIECHV) project provides voluntary in-home services for pregnant women and families with children birth to five that teach skills for raising healthy children.

RED is in its FIFTH year of contracted evaluation for MIECHV in Arkansas.



The evaluation team has:

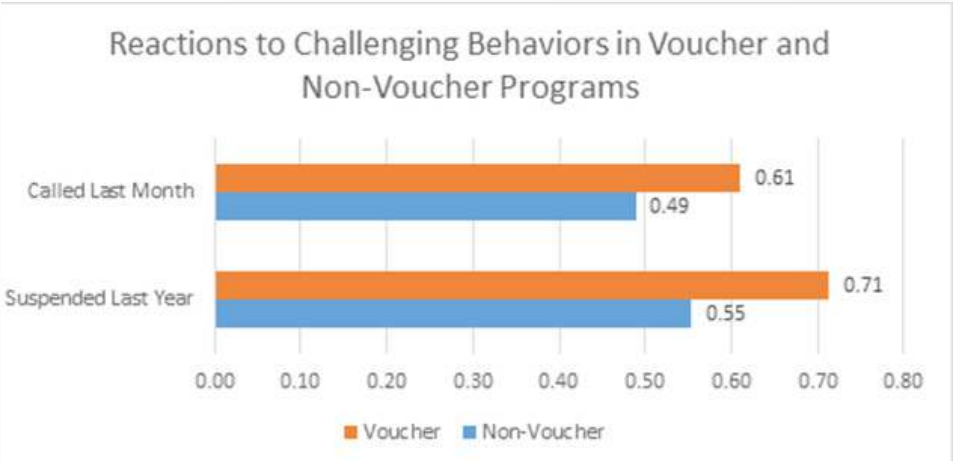
- Trained and provided technical assistance for approximately 200 home visiting staff across 4 home visiting models on screening and assessment.
- Provided reporting to 40 home visiting programs on their data as part of ongoing quality improvement.
- Provided evaluation data to HRSA that helped secure ongoing funding for services.
- Disseminated findings related to:
 - children’s exposure to adverse experiences in a paper recently accepted by the journal, Child Abuse and Neglect. This paper highlighted the negative effects of adverse experiences on children’s social emotional development.
 - retaining parents that enroll with depression in home visiting services. Findings suggest that services that focus on supporting healthy patterns of parent-child interaction were more likely to keep depressed families engaged in home visiting.*



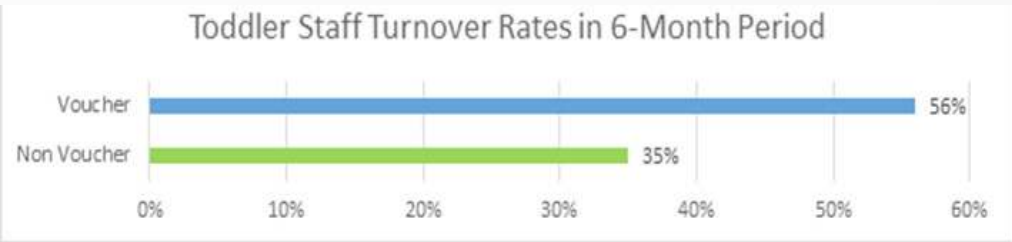
***McKelvey, L. M.,** Fitzgerald, S., Conners-Burrow, N.A., & Whiteside-Mansell, L., (2016, July). Enrolling Depressed Parents: Exploring Moderators of Retention and Engagement in Home Visiting Services. In symposium, State of States' MIECHV Evaluations. Symposium presentation to the 2016 National Research Conference on Early Childhood, Washington, DC.

Arkansas Quality Rating and Improvement System for Early Childhood Education

For over seven years, RED has provided evaluation and policy analysis to the Arkansas Division of Child Care and Early Childhood Education to support efforts to improve the state's quality rating system for early care and education programs. Our studies use state and national data to help the state ensure the quality of child care aligns with current research on the health and development of children and is feasible to implement. This year the Division used our recommendations to provide reimbursement to quality programs for the care of our state's low-income children.



New suspension and expulsion policies for voucher programs. These findings helped the state determine that their voucher policies should cover suspension and expulsion.*



Dr. McKelvey's team helped the state determine tiered reimbursement rates for low-income children across levels of quality by developing a cost modeling tool for Arkansas early childhood education providers. Across all child care, personnel is the most expensive piece of quality. We conducted a market price study last year that demonstrated that the rates that we set are appropriately prioritizing reimbursement to quality programs.*



Dr. Lorraine McKelvey

***McKelvey, L. M.,** & Chapin-Critz, M. (2016). Survey of child care directors. Little Rock, AR: University of Arkansas for Medical Sciences. Funded by and prepared for the Arkansas Department of Human Services' Division of Child Care and Early Childhood Education.

***McKelvey, L. M.,** & Chapin-Critz, M. (2016). 2015 Arkansas child care market price summary. University of Arkansas for Medical Sciences. Funded by and prepared for the Arkansas Department of Human Services' Division of Child Care and Early Childhood Education.

1,943 Families

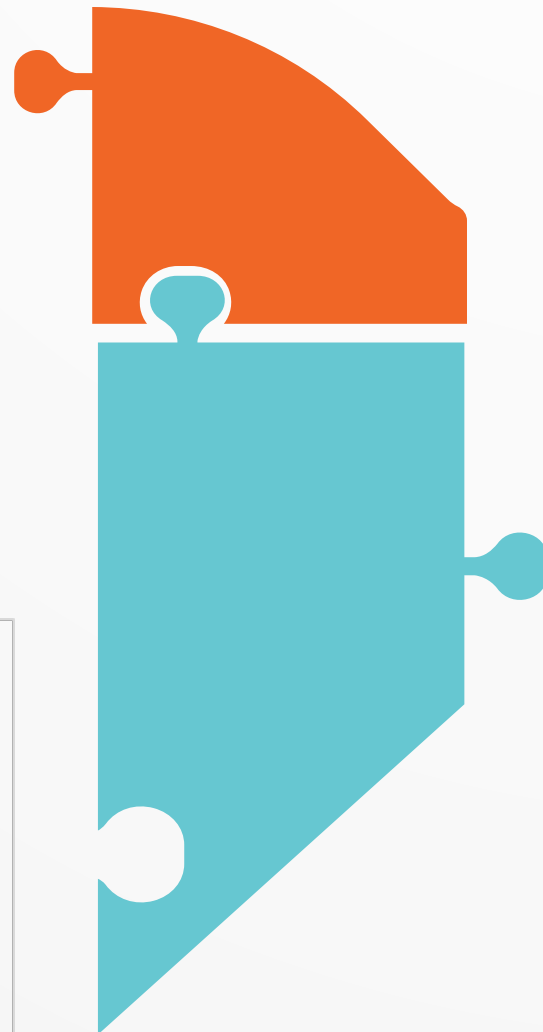
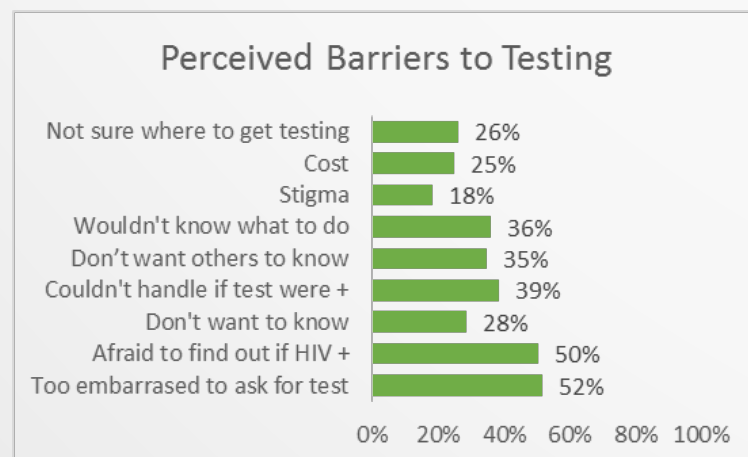
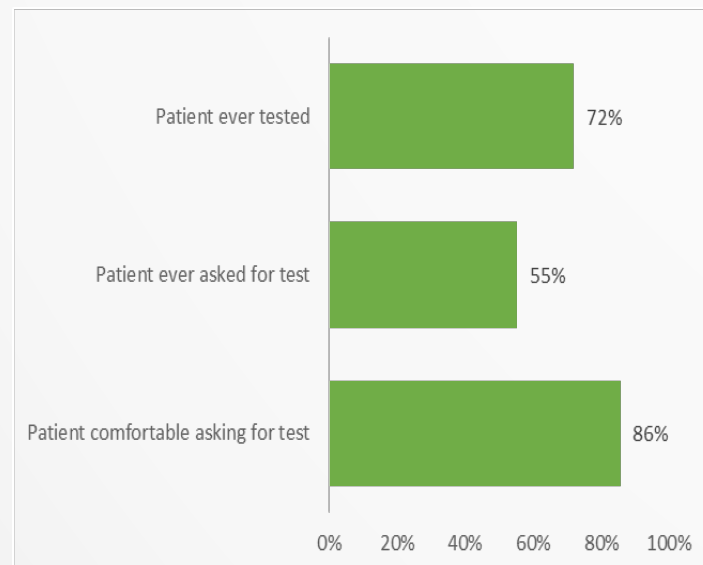


RED research faculty evaluated the effectiveness of home visiting on 1,943 families in Arkansas.

HIV



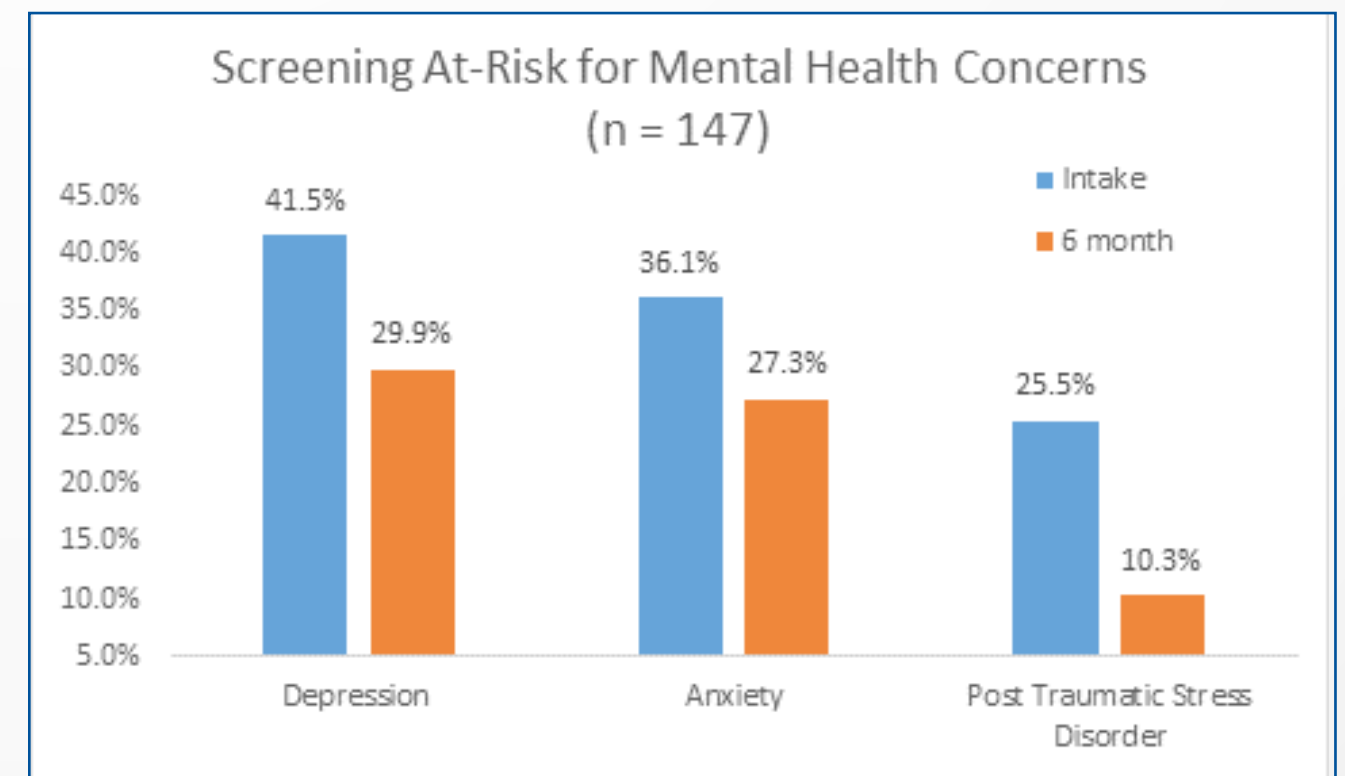
Drug courts were established to reduce criminalization for offenders with drug related convictions. Because drug users are at higher risk for contracting HIV/AIDS; a pilot study was instituted to assess access to primary care, HIV risk behaviors, and perceived barriers to testing among drug court clients in Northwest Arkansas. The pilot study will be used to guide HIV/STD education efforts among drug court clients to include the dangers of IV drug use and safe sex practices.



Drug Courts

RED evaluates the activities of Washington County and Benton County Drug Courts. This year we provided trauma-informed care training to community partners that serve drug court participants. The evaluation studies focus on organizational health literacy within the drug court systems to improve health outcomes of participants. This year a special emphasis was placed on access to primary care, HIV, Trauma, Medication Assisted Treatment and employment interventions.

Partnerships with the University of Arkansas' Psychology Department have allowed for participants with significant trauma to participate in a comprehensive trauma program. Those with a history of opioid abuse have been linked with Medical providers of Medication Assisted Treatment in concurrence with outpatient and ancillary substance abuse services.



Sockwell, L.R., Cunningham, B.C., Whiteside-Mansell, L., & Martel, I. (2016, May). Determinants and Perceived Risk Factors of HIV Among Drug Court Clients. Paper to be presented at the Arkansas Public Health Association's 68th Annual Conference, Hot Springs, AR.

Martel, I., & McCormick, J. (2016, May). Studying Individual and Employer Perceptions Improving Employment Outcomes among Justice Involved Substance Abuse Clients. Presented to the Annual Workforce Conference, Orlando, FL.

We take pride in meeting the needs of patients and families through training the next generation of family physicians.

Research in Residency Education



The Little Rock Family Medicine residency program educates and trains the family physicians of tomorrow, 18 residents at a time. We provide a steady supply of family physicians to the state of Arkansas, especially in rural areas where primary care is particularly needed, and in other states throughout the nation.

Our residency program is based in one of a few Residency Education Academic settings that conduct research. As a result, residents have multiple opportunities to get research experience.

DFPM Residents had access to **four** research options

- Optional Research Rotation
- Journal Club
- PPFM (Practical Problems in Family Medicine)
- Prevention Project

4

Journal Club

Residents made two **Journal Club** presentations — one during PGY-2, the other during PGY-3. The article were chosen by the resident in consultation with the Journal Club advisor. Each resident applied the principles of evidence-based medicine in clinical practice including:

- Identify a problem or area of uncertainty.
- Formulate a relevant, focused, clinically important question that is likely to be answered.
- Find and appraise the evidence.
- Assess the clinical importance of the evidence.
- Assess the clinical applicability of any recommendations or conclusions.
- Decide whether or not to act on the evidence.

Research Rotation...

2 in 2015-2016
(Busch, Apostolov)

5 in 2016-2017
(Stokes, Jayakrishnan, Jones, Ottis, Cockerell)

Students Served This Year

20 fourth year

165 third year

Faculty also participated in 1st and 2nd year medical student courses.

PPFM (Practical Problems in Family Medicine)

Each resident made two PPFM presentations — one during PGY-2, the other during PGY-3.

The goal of PPFM is to enable residents to research, prepare, and effectively deliver patient-centered or disease-centered evidence-based lectures on topics that are commonly encountered in Family Medicine.

Objectives:

- To be able to present a case or cases commonly encountered in Family Medicine.
- To be able to search the literature for current evidence in etiology, signs and symptoms, differential diagnosis, diagnostic tests, treatment, prognosis, and effective strategies in dealing with the doctor-patient relationship, if applicable.
- To be able to organize a lecture in an effective manner, including using audiovisual aids.
- To be able to present the lecture in the recommended format as follows:
 - Patient case
 - Background information about the disease or general knowledge of the disorder
 - Etiology
 - Clinical manifestations
 - Differential diagnosis
 - Prognosis
 - Therapy
 - Prevention
 - Doctor-patient relationship
 - References



Prevention Project

Each PGY-2 resident made a presentation based on the one of **8** approved topics.

PGY-2 residents were assigned to teams (usually a pair) and each team chose a clinically relevant office-based prevention topic to review. All topics were approved by Dr. Arlo Kahn, the Prevention Project advisor.

The Prevention Project will included:

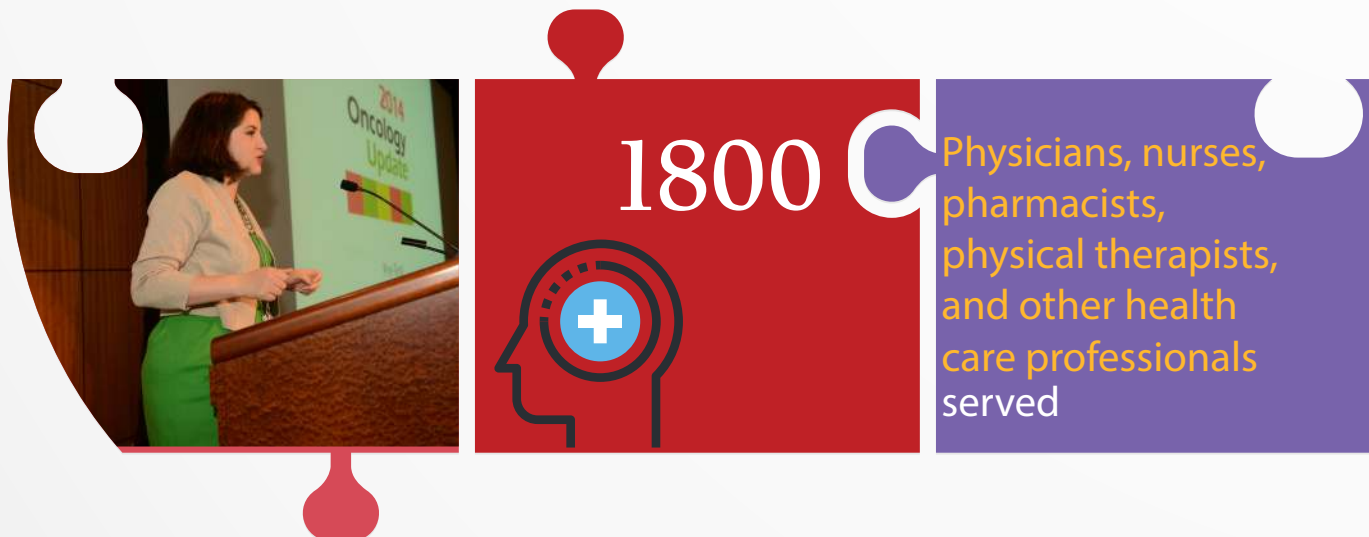
- A report of the US Preventive Services Task Force on the topic area, including:
 - Summary of recommendations
 - Clinical considerations
 - Scientific evidence
 - Recommendations of others
- A review of current practice, including:
 - The resident's practice.
 - Presentation of current FMC clinical practices in the area being studied as found through the audit.
 - Suggested practice guidelines for the topic being studied based on a critical review of the literature.
 - Recommendations of how to improve compliance in the preventive service addressed.



CME

Continuing Medical Education

- **21 Educational Activities**
- **1800+ Professionals Served**
- **11,900 Credit Hours Awarded**



The Division of Continuing Medical Education (DFPM-CME) is a key component in the translation of research to practice. CME disseminates high quality education to primary care physicians as well as an interdisciplinary audience of professionals such as pharmacists, nurses (advanced practice nurses, registered nurses, and licensed practical nurses), respiratory therapists and other allied health professionals.

This year, the division provided two educational programs specifically for **Early Childhood professionals**. These were attended by educators and healthcare professionals. The **Department of Family and Preventive Medicine's** expert child development faculty assisted in the development of the content of these two activities: **Bright Futures Begin Early Supporting Young Children with Challenging Behaviors** and **Quality Programs Support All Children** which had broad participation from professionals around the State of Arkansas.

RED Funding Support

National Institutes of Health (NIH)
Health Resources and Services Administration (HRSA)
United States Department of Agriculture (USDA)
Substance Abuse and Mental Health Services Administration (SAMHSA)
Arkansas Dept of Human Services

- Division of Behavior Health Services
- Division of Child Care and Early Childhood Education

Arkansas Department of Health



National Impact

RED's newest faculty member, **Taren Swindle, Ph.D.**, was the recipient of a **National Institutes of Health (NIH)** grant that will support her work with **RED** work over the next several years. Swindle will receive a four-year, **\$442,583 NIH National Institute of Diabetes and Digestive and Kidney Disease K01 Award**. Swindle's research involves the study of a childcare-based nutrition intervention and development of a strategy for implementing the intervention. She will pilot test the implementation strategy and the intervention's effect on child health outcomes.

The **K01 award** is designed to advance Swindle's expertise and skills in implementation science, child and community nutrition, and community engagement. To help achieve her goals, she will take part in a comprehensive plan of mentored research, didactic education, cross-disciplinary collaborations and structured field studies.



National Institutes
of Health



Dr. Taren Swindle

Publications

We're serious about sharing what we learn.

This year alone, 12 major journals in family medical practice, pediatrics, psychology, and sociology have published 17 academic summaries of our work.

1. Conners-Burrow, N., McKelvey, L. M., Perry, D., Whiteside-Mansell, L., Kraleti, S., Mesman, G., Holmes, K., & Kyzer, A. (2016). Low-Level Symptoms of Depression in Mothers of Young Children are Associated with Behavior Problems in Middle Childhood. **Maternal Child Health**, 20(3), 516-524. DOI: 10.1007/s10995-015-1849-0
2. Conners-Burrow, N. A., Patrick, T., Kyzer, A., & McKelvey, L. M. (2016). A Preliminary Evaluation of REACH: Training 'Hard to Reach' Early Childhood Teachers to Support Children's Social and Emotional Development. **Early Childhood Education Journal**. doi: 10.1007/s10643-016-0781-2.
3. Conners-Burrow, N., Swindle, T., McKelvey, L., & Bokony, P. (2015). A Little Bit of the Blues: Low-Level Symptoms of Maternal Depression and Classroom Behavior Problems in Preschool Children. **Early Education and Development**. 26(2), 230-244.
4. Harrist, A.W. Swindle, T., Topham, G., Hubbs-Tait, L., Shriver, L., & Page, M (In Press). The Social and Emotional Lives of Overweight, Obese, and Severely Obese Children. **Child Development**
5. Kyzer, A., Whiteside-Mansell, L., McKelvey, L. M., & Swindle, T. (2016). Supporting family engagement in home visiting with the Family Map Inventories. **Infants and Young Children**, 29(1), 37-52. DOI: 10.1097/IYC.000000000000051.
6. Larzelere, R., Cox, R., & Swindle, T. (2015). Many replications do not causal inferences make: The need for critical replications to test competing explanations of non-randomized studies. **Perspectives on Psychological Science**, 10(3), 380-389. doi: 10.1177/1745691614567904
7. McKelvey, L. M., Whiteside-Mansell, L., Conners-Burrow, N.A., Swindle, T., & Fitzgerald, S. (2016). Assessing adverse experiences from infancy through early childhood. **Child Abuse and Neglect**, 51, 295-302. DOI: 10.1016/j.chiabu.2015.09.008
8. Patrick, T., Conners-Burrow, N., Whitman, K., Peebles, R., Patterson, L., Kyzer, A., Currey, M., Belvisn-Knabe, B. (2013). REACH: Reaching Educators and Children. **University of Arkansas** (Copyright TXu1-979-588, 2015).
9. Pemberton, J. R., Conners-Burrow, N. A., Sigel, B. A., Stokes, L. D., Sievers, C. M., & Kramer, T. L. (in press). Factors associated with clinician participation in TF-CBT post-workshop training components. **Administration and Policy in Mental Health and Mental Health Services Research**.
10. Perry, D. & Conners-Burrow, N.A. (2015, in press). Addressing Early Adversity Through Mental Health Consultation In Early Childhood Settings. **Family Relations**, 65, 24-36. Doi 10.1111/fare.12172
11. Vanderzee, K. L., Conners-Burrow, N. A., Pemberton, J., & Kramer, T. L. (in press). Who's advocating for children under six? Uncovering unmet needs in child advocacy centers. **Child and Youth Services Review**. doi: 10.1016/j.chilyouth.2016.01.003
12. Knight D, Jarrett D. Preventive health care in women who have sex with women. **Am Fam Physician**. In press.
13. Kraleti S, Jarrett D. Epistaxis and nasal mass in a 49-year-old woman. **J Fam Pract**. In press.
14. Busch M, Priyambada P, Wells T, Kraleti S, Jarrett D. Diagnosis of hemophagocytic lymphohistiocytosis in a patient presenting with fever of unknown origin. **J Fam Pract**. In press.
15. Kraleti S, Khatrri N, Jarrett D. Piperacillin-tazobactam induced interstitial nephritis, hepatitis and serum-sickness like illness. **J Ark Med Soc**. 2016 June;112(14):278-280.
16. Dutkiewicz P, Kraleti S, Jarrett D. Omental infarction presenting as abdominal pain typical for cholecystitis. **Onc Gas Hep Rep**. 2016 Jan-June;5(1):40-42.
17. Knight D, Jarrett D. Preventive health care in men who have sex with men. **Am Fam Physician**. 2015 June 15;91(12):844-851.

Presentations



Research Faculty

¹ **Department Chair**
Daniel Knight, MD, FAAFP



² Leanne Whiteside-Mansell, EdD
RED Director



⁵ Lorraine McKelvey, PhD
RED Associate Professor



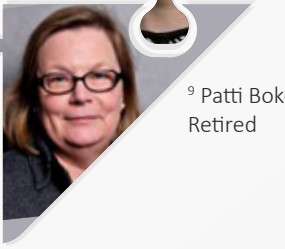
⁶ Taren Swindle, PhD
RED Assistant Professor



⁸ Nikki Edge PhD
RED Assistant Director



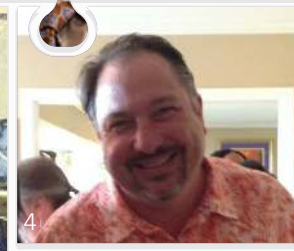
⁹ Patti Bokony, PhD
Retired



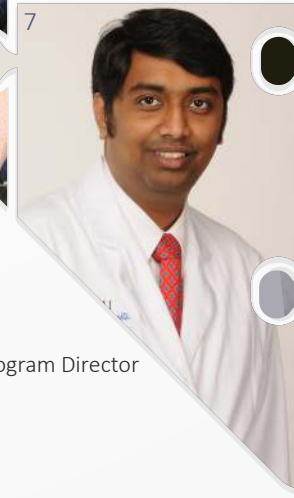
³ Diane Jarrett, EdD
Assistant Director
Residency Program



⁴ Chris Rule, MSW, LCSW
Behavioral Scientist



⁷ Shashank Kraleti, MD
Associate Residency Program Director





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