



PECARN NEWSLETTER

Fall 2026



CONTENTS

01

PECARN AT 25
*Celebrating 25 years of Research,
Collaboration, & Impact*

02

STUDY UPDATES
*Research in Progress
Across the Network*

03

**GOOD CLINICAL
PRACTICE TIP**
*Practical Guidance for
Quality Research*

04

**NODAL NEWS &
NEW FACES**
*Celebrating Our People
& Community*



FEATURED ARTICLE

PECARN • CELEBRATING 25 YEARS OF TRANSFORMING PEDIATRIC EMERGENCY CARE

A quarter-century of collaboration has transformed pediatric emergency research—and positioned the network for its next era of discovery.

Twenty-five years ago, pediatric emergency medicine faced a fundamental problem: clinicians were caring for children without a strong evidence base designed specifically for them. Much of the available research came from small, single-center retrospective studies, while major emergency medicine trials often excluded children altogether. Treatments were commonly adapted from adult care, and prehospital pediatric care was largely unstudied. The Pediatric Emergency Care Applied Research Network (PECARN) was created to change that reality.

Established in September 2001 with support from the Health Resources and Services Administration's (HRSA), Maternal and Child Health Bureau (MCHB), and the Emergency Medical Services for Children (EMSC) program, PECARN became the nation's first federally funded pediatric emergency medicine research network. Its founding principle was simple and enduring: children are not small adults, and they deserve their own evidence. What began with four research nodes and 28 hospital emergency department affiliates has grown into a national collaborative enterprise with seven research nodes, extensive hospital and Emergency Medical Services (EMS) partnerships, more than 150 affiliated investigators and a Data Coordinating Center at the University of Utah.

The network's scale is extraordinary. Over 25 years, PECARN studies have enrolled more than 1.5 million children and generated more than 325 peer-reviewed publications. Its rigorous internal review process has helped investigators turn strong clinical questions into successful research: 185 concepts were submitted, 147 approved, 110 developed into approved protocols, and 66 externally funded. Grants emerging from this pipeline have achieved a 64 percent funding rate. Stable HRSA infrastructure support also serves as a powerful multiplier, helping PECARN investigators secure funding from the National Institutes of Health, the Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention, among others.

PECARN's impact is most visible in the everyday decisions clinicians make at the bedside. A 2007 randomized trial showed that dexamethasone did not improve outcomes for infants with bronchiolitis, helping end routine use of an ineffective treatment. The landmark 2009 traumatic brain injury study enrolled 42,412 children and produced a clinical prediction rule that safely identifies children at very low risk of clinically important brain injury. Now used around the world, the rule has reduced unnecessary CT scans and children's exposure to radiation. A companion rule for blunt abdominal trauma, developed from more than 12,000 children, brought the same evidence-based discipline to another difficult imaging decision.

CONT'D

The network has also challenged long-held assumptions. In the 2018 DKA FLUID trial, 1,389 children with diabetic ketoacidosis were randomized to different fluid rates and saline concentrations. The study found no difference in neurological outcomes, dispelling the fear that faster fluid replacement caused cerebral injury and changing treatment protocols worldwide. That same year, a PECARN trial found that a commonly recommended probiotic did not reduce the severity or duration of pediatric gastroenteritis. These studies demonstrate one of the network's defining strengths: its ability to test accepted practice rigorously—even when the best answer is to stop an ineffective treatment.

Today, PECARN's reach extends from the 911 call through the emergency department, intensive care unit and long-term recovery. Its prehospital research program has documented significant medication-dosing errors and created linked EMS–ED data infrastructure. Current multicenter efforts include PediDOSE, which is testing simpler midazolam dosing for seizures, and Pedi-PART, an adaptive trial comparing airway strategies for critically ill children. Recent work also includes a cervical spine prediction rule with a 99.9 percent negative predictive value and a comprehensive, age-based evidence framework for evaluating febrile infants. PRoMPT BOLUS, with enrollment completed, showed that both 0.9% saline and balanced fluids are safe and effective in the treatment of suspected pediatric septic shock.

One of PECARN's most powerful assets is its Registry, which receives electronic health record data from all pediatric emergency department visits at participating sites. Data are transmitted to the EMSC Data Center, then harmonized, stored and analyzed; a public dashboard, refreshed monthly, provides current insights into the encounters captured. The Registry turns routine clinical care into a continuously growing resource for research, benchmarking and quality improvement. Its scale is illustrated by a 2026 PubMed-indexed study that analyzed 5.3 million visits from 12 emergency departments between 2017 and 2024. Investigators established achievable benchmarks across initial assessment, timeliness, patient flow, return visits, asthma and infection management, and pain care. By revealing meaningful variation among sites and settings, the Registry helps emergency departments identify attainable standards, target improvement and learn from high-performing clinicians. PECARN also offers a public-use Registry dataset covering 2012–2021, extending the value of this infrastructure to investigators beyond the network.

Producing evidence is only part of the mission. PECARN is investing in implementation science, clinical decision tools, educational resources and electronic health record support so that findings reach community emergency departments as well as academic centers. Its data also informs such topics as injury prevention, child abuse detection, and public policy. During COVID-19, the network's robust infrastructure allowed investigators to launch multicenter studies within weeks, generate early prospective evidence on multisystem inflammatory syndrome in children and help inform national guidance. The experience reinforced an essential lesson: a research network cannot be built during a crisis; it must be ready before the crisis begins.

PECARN's next chapter will pair this proven infrastructure with artificial intelligence, precision medicine, real-time analytics and adaptive platform trials. Leaders envision broader global collaboration, stronger pandemic preparedness and a sustained commitment to ensuring that every child benefits from research regardless of where they seek care, from rural communities to large academic medical centers. Just as important, the Emerging Investigator Program continues to mentor early-career researchers from concept development through independent leadership, ensuring that the network's collaborative culture passes to a new generation.

PECARN's 25th anniversary celebrates more than publications, grants or enrollment totals. It honors the investigators, federal partners, data teams, research coordinators, nurses, EMS professionals and more than 1.5 million families whose trust made this work possible. Together, they built an infrastructure that turned isolated questions into definitive evidence; and definitive evidence into safer care. The enduring vision for the next 25 years is clear: every child who enters an emergency department deserves care guided by the best evidence, not the best guess.

This article was developed from the Society for Academic Emergency Medicine (SAEM) presentation materials and summary presentation celebrating 25 years of PECARN.

Joelle Donofrio, Lauren Vonholtz, and Melissa Laws

STUDY UPDATES

Advancing
pediatric
emergency care
through clinical
research



PED SCREEN

PED SCREEN addresses the critical need to improve pediatric sepsis outcomes by developing methods to accurately identify at-risk children presenting for emergency care. The project captures electronic health record (EHR) data to create a multi-center registry with the goal of improving the detection and treatment of pediatric sepsis in the emergency department (ED) setting. To accomplish this, we have automated the determination of organ dysfunction in children with sepsis directly from structured and narrative data in an expanded multicenter EHR patient registry. We have derived and validated machine learning prediction models of pediatric sepsis that predict subsequent organ dysfunction within 48 hours using ED EHR data from the first 4 hours of care. Innovative deliverables from this project include the existence of a broad and rich EHR registry, an automated process of outcome determination, and prediction models of risk of sepsis. The primary grant deliverable of a machine learning predictive model for pediatric sepsis has been recently published in JAMA Pediatrics.

HEADACHE

The Headache Assessment in Children for Emergent Intracranial Abnormalities (HEADACHE) study aims to create the first decision-making algorithm that will allow physicians to determine the risk of emergent intracranial abnormalities in children with headaches and identify those who require emergent neuroimaging and those who do not. We completed patient enrollment, follow-up procedures, and data cleaning. We are currently conducting data analyses and preparation of primary and secondary manuscripts. We enrolled 13,028 children and completed 878 interrater assessments. Emergent intracranial abnormalities were identified in approximately 1.4% of children. Approximately 37% of children received emergency department (ED) neuroimaging, with over 60% undergoing CT scans.

SCIENCE II

The SCIENCE trial has now completed enrollment, with 7,234 eligible visits across seven sites. In February, we held our final DSMB meeting, and both the DSMB and central IRB had no concerns and approved continuation of the study activities. An abstract for the initial results has been submitted to the American Society of Hematology annual meeting, and we are working on primary and secondary manuscripts. We continue to address the many barriers to guideline-adherent emergency department care for children with sickle cell disease presenting with painful events.

STARt

The STARt study investigated the benefits and safety of arginine for the treatment of patients with Sickle Cell Disease and pain. Across 10 sites, over 2,600 patients were screened and 271 participants randomized, making it one of the largest pediatric studies of acute pain in SCD performed to date! Primary clinical endpoint data were recently published in JAMA in August. To date, 3 STARt manuscripts have been published, 3 are in peer review, 6 are in various stages of development, and at least an additional 6 new MARFs anticipated. Promising data in patients with acute chest syndrome (ACS) is the foundation for a future trial – STARt-ACS, currently under PECARN protocol review.

TEAPOT

This trial is studying the effectiveness of TXA dosage after a rebleed post tonsillectomy. It aims to improve health outcomes in children by showing TXA nebulization will negate the need for a second surgery after a patient has a rebleed post surgery. This is a pilot trial including three sites with a target enrollment of 22, as of 8/24 we have two enrollments with one nearing their final follow up visit.

PECARN REGISTRY

The PECARN Registry is an emergency care visit registry with automated transmission from the electronic health record data for pediatric patients at participating sites. The Registry currently contains data from all emergency department (ED) visits from twelve healthcare systems including nineteen EDs with data spanning calendar years 2012 through 2026. Each site transmits data to the DCC monthly. Comprehensive data quality assurance rules have been automated to assess data quality and validation of the transmitted data. The Registry has just upgraded its data collection system and is currently onboarding four sites. Data are used to generate monthly site-level and semi-annual provider-level quality of care report cards. The performance measures included in the report cards are in the process of being updated. Data are also used for health services research, comparative effectiveness research, hypothesis generation and grant planning for the network and is utilized in many other funded PECARN grants. Please plan to join us for the bi-monthly PECARN Registry Study Development Working Group meetings.



STUDY UPDATES

Advancing pediatric emergency care through clinical research



FAST

In the evaluation of hemodynamically stable children who have experienced blunt torso trauma, the benefits of using the Focused Assessment with Sonography in Trauma (FAST) examination are unclear and therefore are variably used. This NICHD-funded RCT of the FAST examination in 6 PECARN centers aims to definitively determine its utility in hemodynamically stable pediatric trauma patients. The study aims to make sure injured children are given the right diagnosis and avoid unnecessary CT scans. Across all 6 PECARN sites, 4,271 patients have been enrolled to date and are on target to enroll 4,650 patients by June 2027.

HIKO STEC

Hyperhydration to Improve Kidney Outcomes in Children with Shiga Toxin-producing *E. coli* Infection trial (HIKO STEC) is entering its fifth year of recruitment. This multinational, 26-site, phase III cluster-randomized crossover study compares hyperhydration (early aggressive intravenous treatment) with conservative fluid management in pediatric patients infected with STEC. The trial has extended enrollment by 12 months to ensure we reach our enrollment goal of 1040 and currently have enrolled 851 participants.

MoKA

The Morphine or Ketamine for Analgesia (MoKA) study will evaluate ketamine versus morphine for pain management in pediatric participants presenting with long bone fractures or abdominal pain. Study start-up activities are progressing, with protocol training completed on July 15 and pharmacy training on August 11. Site Initiation Visits (SIVs) will be completed prior to individual site activation. Study drug production began in early August, and study activation is currently projected for mid-October.

TETRIS

Trends and Epidemiology through Real-time Injury Surveillance (TETRIS): Novel Use of Physician-Informed Natural Language Processing in Emergency Department Data for Pediatric Injury Surveillance. The objectives of this study are to create a novel pediatric injury surveillance system using natural language processing (NLP) in the PECARN Registry. We applied physician informed NLP using a graphical user interface, Document Review Tools (DrT), and LLMs to identify 3 injury mechanisms in the Registry and in 4 hospitals: micromobility injuries (e-scooters, ebikes), suicide attempts, and overdoses. We are presenting 3 abstracts at 2 meetings this fall. By creating an injury surveillance system that is more accurate and timelier than current national sources, we will impact health outcomes for children by decreasing morbidity and mortality from preventable injuries.

SCREENSMART / STI

The scientific premise of the ScreenSmart study stems from the PECARN STI study foundational work. This study seeks to adapt our previous intervention for STI screening to broad-scale opt-out HIV screening, specifically addressing diagnosis and prevention goals from the national End the HIV Epidemic (EHE). This includes increasing HIV screening rates in pediatric EDs using computer-facilitated collection of patient-reported outcomes and confidentially and efficiently assessing PrEP eligibility. Using mHealth, we aim to improve linkage to care for HIV prevention and treatment. All study sites are actively offering HIV screening via surveys and linkage to and initiation of PrEP has occurred because of the study. Data collection will continue through summer of 2027.

KSETT

Enrollment for the Ketamine add-on Therapy for Established Status Epilepticus Treatment Trial (KSETT) began in March 2026. As of September 3, there have been nine enrollments at four of the nine participating PECARN sites. Twenty-eight participants in total have been enrolled across all participating sites.

KSETT is an Exception from Informed Consent (EFIC) trial. The overarching goal of KSETT is to evaluate whether adding ketamine to levetiracetam more effectively terminates status epilepticus, leading to better neurological outcomes for children with prolonged seizures.

STUDY UPDATES

Advancing pediatric emergency care through clinical research



PEDIDOSE

The study team for Pediatric Dose Optimization for Seizures in Emergency Medical Services (PediDOSE) finished enrollment of over 6800 subjects at 20 sites! The first oral presentation of results will be at the National Association of EMS Physicians Annual Meeting in January 2027, and publication of numerous planned manuscripts is anticipated later in 2027. PediDOSE measured the effectiveness and safety of a standardized pediatric seizure protocol with age-based midazolam dosing. If the intervention was more effective than usual practice (calculation-based dosing), the potential impact is a paradigm shift in EMS pediatric seizure treatment that can be implemented across the country.

TELE-EMS

Tele-EMS is a multicenter, simulation-based, randomized control trial testing whether pediatric emergency physicians providing real-time video support to EMS crews improves prehospital care safety for critically ill infants in ambulances versus usual care. We plan to enroll 140 EMS-physician teams and conduct 560 simulations at 9 U.S. sites over 3 years. We achieved all Year 2 milestones and are currently entering year 3. We have enrolled 169 EMS clinicians and 60 physicians from Massachusetts, Connecticut, Colorado, and New York. To date, 61 teams (43.6%) from 13 EMS agencies and 7 hospitals have been recruited with 59 (97%) teams completing all 4 simulations. This is the first study assessing the impact of pediatric teleconsultation on prehospital patient safety.

BPAP

Bilevel positive airway pressure (BPAP) is potentially effective for children with severe asthma exacerbations. In an NHLBI R34 grant to plan a definitive trial of early BPAP use, we developed a multicenter protocol for asthma management and BPAP delivery (Aim 1), achieving greater than 85% consensus. We have also completed one modified Delphi round to identify a primary outcome that reflects critical care utilization (Aim 2). For Aim 3, we have initiated a three-site pilot randomized trial to evaluate study feasibility. If safe and effective, early BPAP could improve the outcomes of children with asthma in severe distress.

PedCAPS

The PedCAPS study continues to build on the success of the derivation phase and is now focused on enrolling the validation cohort. The validation phase launched on August 1, 2025, and has enrolled 1,233 participants to date, with 130 biospecimens collected.

PedCAPS also had a strong presence at the Pediatric Academic Societies (PAS) Meeting, with both platform and poster presentations highlighting study-related research. Dr. Shubhada Hooli of Texas Children's Hospital delivered a platform presentation titled Reliability of Physical Examination Findings in Children Diagnosed with Pneumonia. This paper was just accepted at JAMA Network Open. Dr. Lilliam Ambroggio of Children's Hospital Colorado presented a platform presentation titled Development of Prediction Models for Mycoplasma pneumoniae in Children with Community-Acquired Pneumonia.

PEDI-PART / PEDI-VENT

The Pediatric Prehospital Airway Resuscitation Trial or PEDI-PART aims to determine the best strategy for prehospital airway management in critically ill children. PEDI-PART closed enrollment in March 2026 with 1258 enrolled subjects. Post enrollment community consultation and public disclosure activities are set to be completed later this year. The ancillary PEDI-VENT study, which involves analysis of paramedics' portable cardiac monitor files for subjects enrolled in PEDI-PART, will continue data collection in an observational cohort starting in October 2026.

GOOD CLINICAL PRACTICE TIP

WHO IS DOING WHAT?

WHY YOUR DOA LOG MATTERS

You know your study has a Delegation of Authority (DOA) log—but do you know why it matters? Can your DOA clearly answer the question: **Who is doing what?**

It's all too common for monitors to find discrepancies between the DOA log, training records, and what site staff are actually doing on a study. The good news? **Many of these issues are preventable when delegation, training, and documentation are managed together.**

Good Clinical Practice (GCP) E6(R3), Section 2.3, requires investigators to maintain a record of the individuals to whom trial-related activities have been delegated. Delegated staff should be appropriately qualified and informed about their assigned responsibilities, while the investigator retains ultimate responsibility and oversight.

A well-maintained DOA log does more than check a compliance box. It connects the dots between who is responsible, whether they are qualified and trained, and what they are actually doing on the study, keeping you inspection-ready.



DOA LOG

Who is responsible for what



TRAINING RECORDS

How you know they are qualified and trained



SITE ACTIVITIES

What they are really doing



CLEAR DELEGATION & OVERSIGHT

When these three align, you have a clear picture of delegation and oversight. When they don't, you have a potential compliance issue.

HOW CAN YOU MAKE YOUR DOA LOG WORK FOR YOU?

01



Clearly define responsibilities

Make sure delegated activities are specific and appropriate to each individual's role.

02



Confirm qualifications and training

Verify appropriate education and current research-related training, as well as required study-specific training. Document training before delegated responsibilities become active.

03



Keep the records aligned

The DOA, training records, and actual site activities should tell the same story.

04



Get the dates right

Start dates should reflect when required training is complete, the individual is appropriately approved/listed on the IRB, and the delegation becomes active. End dates should be documented when responsibilities end or when staff leave the study/institution.

05



Update promptly

Revise the DOA when responsibilities change or staff join or leave the study. Remember to update training documentation as needed, such as when a new protocol version requires additional training.

06



Check it against reality

Periodically compare the DOA with actual site activities. Ask: *Is this still an accurate picture of who is doing what?*

NODAL NEWS & NEW FACES



NODAL NEWS & NEW FACES

Highlights from across the PECARN Network, celebrating milestones, updates, and supporting one another in our mission to improve outcomes for children



CHaMP

HIGHLIGHTS

*Advancing evidence.
Improving lives.*



CHaMP has had several notable achievements this year! The Houston site Academic Facilitator, Dr. Kevin Schulz, was selected as Medical Director for the Houston Fire Department.



CHaMP Nodal PI, Dr. Manish Shah, received the Nate Kuppermann Mentorship in Research Award from the Society for Academic Emergency Medicine in May 2026.



Dr. Joelle Donofrio-Odmann, the node's Dissemination Expert and PECARN Dissemination Co-Chair, has been promoted to Professor of Clinical Pediatrics and Emergency Medicine at the University of California - San Diego.

GLACiER

HIGHLIGHTS

*Expanding Perspectives.
Improving Outcomes.*



Leah Middelberg, M.D. – GLACiER DiSCO Representative.

Assistant Professor of Pediatrics, The Ohio State University College of Medicine.

Attending Physician of Emergency Medicine, Nationwide Children's Hospital.



Jordee M. Wells, MD, MPH – NWCH HEDA PI (August 2026)
Associate Professor of Clinical Pediatrics, The Ohio State University College of Medicine

Principal Investigator, Center for Child Health Equity and Outcomes Research, Abigail Wexner Research Institute at Nationwide Children's Hospital.

Attending Pediatric Emergency Medicine Physician.



Desiree Noel Wagner Neville, MD – UPMC HEDA Co-PI (June 2026)

Associate Professor of Pediatrics and Pediatric Emergency Medicine

Director of Point-of-Care Ultrasound

Site PI for Pedi Lyme Net research network.

NODAL NEWS & NEW FACES

*Highlights from across the PECARN Network,
celebrating milestones, updates, and supporting one
another in our mission to improve outcomes for children*



HOMERUN

HIGHLIGHTS

*New Perspective.
Shared Purpose.*



Katheryn Ney, BS MPH.
New RA at Washington
University



HOMERUN is excited to welcome Michelle Pickett, MD MS, HEDA PI at MCW, as the new co-chair of PRADS, effective 9/1! Michelle is taking over from Fahd Ahmad, MD MSCI as he hands the torch over to Michelle. Thank you so much Fahd for your service as co-chair!

PRIME

HIGHLIGHTS

*Connecting People.
Growing Connections.*



Antoinette Body
Research coordinator,
UC Davis, August 1, 2026



Sophia Thomas
Research coordinator,
UC Davis
August 1, 2026



Noah Crawford
Research coordinator
UC Davis, July 8, 2026

NODAL NEWS & NEW FACES

Highlights from across the PECARN Network, celebrating milestones, updates, and supporting one another in our mission to improve outcomes for children



SPARC

HIGHLIGHTS

*Growing our Network.
Expanding our Impact.*

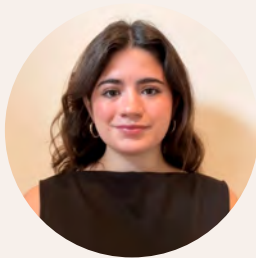


Two SPARC Emerging Investigators, Ashley Foster and Daniel Shapiro received two K23 awards this summer. Ashley Foster, who received a Notice of Award from the NIH for her K23 Career Development Award. Her four-year award, “Adolescent-Adapted Proactive Crisis Line Intervention for Youth at Increased Risk of Suicide Following Emergency Department Discharge” is supported by the NIH’s National Institute of Mental Health (NIMH). Ashley’s study will develop and pilot test an adolescent-adapted proactive crisis line intervention designed to support adolescents at risk for suicide following emergency department discharge.

STELAR

HIGHLIGHTS

*New Voices.
Shared Vision.*



Lina Albadawi
Research Coordinator
August 2026



Justin Selby
Research Coordinator
August 2026



STELAR would like to announce a leadership at change at our CHLA site. Dr. Pradip Chaudhari will be the new HEDA PI at CHLA effective September 2026. Thank you to Dr. Todd Chang for your 7 years of leadership!

NODAL NEWS & NEW FACES

Highlights from across the PECARN Network, celebrating milestones, updates, and supporting one another in our mission to improve outcomes for children



EDC

HIGHLIGHTS

*Supporting Discovery.
Shaping the Future.*

BEHIND THE PECARN WEBSITE

Kenta Miyoshi • Brent Husley • Andrew Izatt



The EDC is pleased to recognize Kenta Miyoshi, Full Stack Web Developer; Brent Husley, Technical Project Manager; and Andrew Izatt, Business Intelligence Analyst for their contributions to PECARN's digital resources. Through their technical expertise, project coordination, and collaboration, the team supports the tools and infrastructure that help PECARN share information and support activities across the network.

Their work includes contributions to the PECARN website, as well as the development of resources that support network operations. Notably, Andrew developed the PECARN Operations Dashboard, providing an additional tool to support PECARN's operational needs. A key focus of his work has been validating the underlying data to ensure the information presented is accurate and meaningful to both the public and study stakeholders. Reflecting on the project, Andrew shared, "My hope is the website communicates the growth and impact of PECARN's important work."

We are grateful to Kenta, Brent, and Andrew for their work behind the scenes and their continued contributions to the PECARN community.

PEM-NEWS

HIGHLIGHTS

*Shared Purpose.
Meaningful Progress.*

CELEBRATING GROWTH AT PEM-NEWS



Following the retirement of Dr. Peter Dayan from his role as Nodal Principal Investigator, Dr. Daniel Tsze assumed the role of Nodal PI on January 1, 2026.



Effective September 1, 2026, Jordan Wood assumed the role of Nodal Administrator, as Raquel Shrager shifts her focus toward broader departmental research initiatives. Yakira Nolasco will continue in her role as Co-Nodal Administrator, providing important continuity and support for the node.

The PEM-NEWS team is also pleased to welcome Marlin Morel as new Research Coordinator at Columbia University. Marlin succeeds Shekinah Pettway, who left the team this summer to begin medical school.



THANK YOU



Funding Acknowledgment & Disclaimer

PECARN is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), in the Maternal and Child Health Bureau (MCHB), under the Emergency Medical Services for Children (EMSC) program through the following cooperative agreements: EMSC Data Center (EDC)-University of Utah, GLACiER-Nationwide Children's Hospital, HOMERUN-Cincinnati Children's Hospital Medical Center, PEM-NEWS-Columbia University Medical Center, PRIME-University of California at Davis Medical Center, CHaMP node- The Leland Stanford Junior University, STELAR- Seattle Children's Hospital, and SPARC- Emory University. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government. HRSA/EMSC Contact: Ellis Perez: EPerez@hrsa.gov.

