Fall 2015



In a nutshell



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NEW PECARN NODE: Southwest Research Node Center

Submitted by Susanne Olkkola SW PECARN Nodal Administrator

Welcome to the

PEDIATRIC EMERGENCY CARE APPLIED RESEARCH NETWORK

The Arizona Health Sciences Center (AHSC) at the University of Arizona (UA) is home to the newly created Southwest Research Node Center for PECARN (SW-RNC). The SW-RNC is made up of AHSC as the node center and the Arizona Hospital Emergency Department Affiliate (HEDA-AZ); with the University of New Mexico Health Sciences Center (HEDA-NM) and the University of Oklahoma Health Sciences Center (HEDA-OK) as the other sites and the New Mexico Emergency Medical Services Consortium as the EMS Affiliate (EMSA-NM).

The SW-RNC builds on an existing robust and innovative clinical trials infrastructure to conduct PECARN-approved, multiinstitutional research to improve emergency medical care of acute illnesses and injuries in children and youth. The combination of the extensive clinical research expertise of the SW-RNC investigators and the powerful clinical research environment provided by this grant will help to develop and deploy innovative, funded, practice-changing clinical research protocols.

The SW-RNC brings important experience in pediatric emergency clinical trials management, including exception from informed consent, asthma management approaches that successfully reach into underserved communities, and NIH-funded, region-wide, prehospital traumatic brain injury research. The SW-RNC substantially increases access to rural and prehospital patients and has the largest representation of Hispanics and Native Americans in the United States.

PECARN SW NODE DEMOGRAPHIC DATA					
Table 2:SOURCE: Census.gov (2009-2013)	Arizona	New Mexico	Oklahoma	SW RNC	United States
Land area in square miles	113,594	121,298	68,595	303,487	3,531,905
Population	6,731,484	2,085,572	3,878,051	12,695, 107	318,857, 056
Persons per Square Mile (2010)	56.3	17.0	54.7		87.4
% Persons Under 18 years	24.4	24.3	24.6	24.4	23.3
% Native American	5.3	10.4	9.0	7.3	1.2
% Hispanic	30.3	47.3	9.6	26.8	17.1
% Rural Population	10.19	22.57	33.76	19.4	19.3
% Uninsured (2012)	17.6	18.4	18.4	18	14.8
% Below Poverty Level (2013)	18.6	21.9	16.8	18.6	15.4
% Children under 19 below 200% of poverty (2013)	51.5	54.7	50.4	51.7	44.5

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New PECARN Site: The Arizona Health Sciences Center (AHSC)

Submitted by Kurt Denninghoff, MD HEDA PI (New SW Node)

The Arizona Health Sciences Center (AHSC) at the University of Arizona serves as a SW-RNC node and the AZ-HEDA site in conducting and coordinating the multicenter trials. The AHSC has a proven record of success in multicenter emergency medical services (EMS) research.



The AHSC is the statewide leader in biomedical research and health professions training. The center includes the UA Colleges of Medicine (Phoenix and Tucson), Nursing, Pharmacy and Mel and Enid Zuckerman College of Public Health, with main campus locations in Tucson and the growing Phoenix Biomedical Campus in downtown Phoenix. From these vantage points, the AHSC reaches across the state of Arizona and the greater Southwest to provide cutting-edge health education, research, patient care and community outreach services. A major economic engine, the center employs almost 5,000 people, has nearly 1,000 faculty members and garners more than \$126 million in research grants and contracts annually.

Banner - University Medical Center Tucson (BUMCT), South and Phoenix hospitals serve as the primary teaching sites for the University of Arizona College of Medicine, College of Nursing, College of Public Health and College of Pharmacy. BUMCT offers a fully comprehensive level of care to pediatric patients. Along with being the largest Level 1 trauma center with regard to trauma vol-

ume in Arizona, BUMCT also includes Banner Children's – Diamond Children's Medical Center, serving a diverse patient population. Of the more than 38,000 pediatric patients available for research trials screening, 44% are Hispanic, 5% are Native American, 6% are African American, and 39% are Caucasian.

As a land-grant institution, UA recognizes its unique mission and obligation to serve all of the diverse peoples and communities in Arizona, including Native American communities. Today, the UA is widely regarded as one of the leading public universities in the world for its excellence in Native American academic programs. The state has 22 federally recognized resident Native nations, and many other American Native Americans who live and work in Phoenix, Tucson, Flagstaff, and other Arizona cities. Arizona's Native American reservations encompass approximately 28% of the total acreage in the state. Native nations play a significant role in the state's economy, with diverse economic enterprises including, but not limited to, gaming, natural resource management, tourism, retail, and artistry.



Above: AHSC Emergency Department in front of Emergency Department Entrance.



New PECARN Site: The Oklahoma University Health Sciences Center (OUHSC)

Submitted by Amanda Bogie, MD HEDA PI (New SW Node)

The Oklahoma University Health Sciences Center (OUHSC) is one of only four comprehensive academic health centers in the nation, with American College of Surgeon Level One Adult and Pediatric Trauma Center Verification. Pediatric trauma services are provided through combined efforts of The Children's Hospital of Oklahoma (TCH) and the OU Medical Center/Trauma One Center. TCH is a free standing facility with an Emergency Department (ED) serving over 43,000 children 21 years and under, in 2014. With more than 16,000 hospital admissions last year, TCH at OUHSC was the 21st largest children's hospital in the U.S. in clinical volume.

Amanda Bogie MD, is currently the Section Chief and Fellowship Director for Pediatric Emergency Medicine. The Section of Pediatric Emergency Medicine is composed of 15 BC/BE PEM physicians, 3 Adult Emergency Medicine Physicians, 1 Med-Peds and 5 General Pediatricians. We have an active Pediatric Emergency Medicine Fellowship Program, taking a total of 9 fellows.



The Oklahoma Emergency Medical Services for Children Resource Center (EMSC) is housed within the Section of Pediatric Emergency Medicine. Our EMSC program, founded in 1992, originally directed by Dr. John Stuemky, is now under the Medical Directorship of Dr. Curtis Knoles. EMSC works to improve outcomes for children involved in emergencies, through offering education and equipment to pre-hospital providers, hospital personnel and members of our community.



Emergency Medical Services for Children

The Child Abuse Pediatric Program is also housed within the Section of Pediatric Emergency Medicine. We have three BC Child Abuse Pediatricians. Dr. Ryan Brown, a Native American from Oklahoma, is the Medical Director.

OUHSC has a unique pediatric population and diversity. It serves in its catchment area: 50% of rural patients (OK is considered a rural state by most); roughly 9% of Native American patients, 9% of Hispanic patients, and a significant % of patients living below poverty level. This population mirrors and augments the populations in AZ and NM, bringing large numbers of these special populations to facilitate research into how best to reduce disparities in trauma or medical care between nonpediatric hospitals and pediatric centers, especially in the rural environment. Medical Direction and research support for both EMS and EMSC affiliates are sponsored out of the University of Oklahoma, Dept. of Emergency Medicine and Section of Pediatric Emergency Medicine, respectively. These entities have historically collaborated on education, training and research and work together on State and National Projects.



The success of the Endowed Research Chairs Program, within the Dept. of Pediatrics, has enabled the Section of Pediatric Emergency Medicine to successfully recruit academic physicians/scientists. Dr. Lawrence Quang, a PEM/Toxicologist, joined our Section in 2014 as the CMRI Express Employment Professionals Endowed Research Chair in Pediatric Emergency Medicine. He brings to our Section a KO8 Grant and his expertise in toxicology. Additionally, the Section of PEM collaborates with the Oklahoma Shared Clinical and Translational Sciences Institute (OCTSI), to further enhance and expand research opportunities and education through Oklahoma Shared Clinical & Translational Resources (OSCTR). ■



Caring for Children in New Mexico and the Southwest

Sinical Practice Educator New PECARN Site:

University of New Mexico Health Sciences Center (UNM-HSC)

Submitted by Robert Sapien, MD HEDA PI (New SW Node)

The HEDA-NM is housed in the Division of Pediatric Emergency Medicine in the Department of Emergency Medicine at the University of New Mexico Health Sciences Center (UNM-HSC). The Division of Pediatric Emergency Medicine has received EMS for Children grants in the following categories: Demonstration Grant, 3 Targeted Issues Grants, EMS State Partnership, and the State Partnership Regionalization of Care. We have also received NIH funding as a K-award and a current RO-1 Randomized Controlled Clinical Trial. The Division has contributed

Below: UNM-HSC's newly renovated Building.

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nationally as members of COPEM, CDC Workgroup for the Development of EMS Asthma Protocols, NAEMSP, and AAP Clinical Guideline development. Additionally, one of our faculty is the Medical Director for the Department of Health EMS Bureau. The Department of Emergency Medicine has a robust research infrastruc-

ture with a fully staffed Office of Research and in-house statistical support. The UNM-HSC is an

and in-house statistical support. The UNM-HSC is an NIH Clinical Translational Research Center which offers an institution-wide research infrastructure.

NM is a minority-majority state with 32 of the 33 counties designated as medically underserved and having large Hispanic and Native American populations. NM consistently ranks 49th in the nation in child wellbeing and 3rd in percentage of children living below the poverty level. The minority-majority status and the significant challenges our children face with the social determinants of health offer HEDA-NM an opportunity to conduct research of potentially great impact for children.

Below: UNM has both an EMS & Pediatric EM Fellowship. The Peds EM fellows complete a month rotation with the EMS fellowship.





Above: The EMS Consortium has their own vehicles to respond to city and county calls as part of the program.

PECARN Publications



PECARN MAGIC STUDY

PECARN MAGIC STUDY OVERCOMES PREVIOUS BARRIERS TO COMPLETE RCT OF ACUTE SICKLE CELL PAIN TREATMENT

Submitted by David Brousseau, MD, MS HEDA PI (HOMERUN Node)

A recent study published in *Blood* evaluated the benefit of the addition of intravenous (IV) magnesium to standard therapy for pediatric sickle cell pain crisis. The Magnesium for children in Crisis (MAGiC) study was a randomized, double-blind, placebocontrolled trial of IV magnesium versus normal saline placebo conducted at 8 sites within the Pediatric Emergency Care Applied Research Network (PECARN). Children 4-21 years old with hemoglobin SS or S β^0 thalassemia requiring hospitalization for pain were eligible. Children received 40 mg/kg of magnesium or placebo every eight hours for up to six doses plus standard therapy. The primary outcome was length of stay in hours from the time of first study drug infusion. Secondary outcomes included opioid use and Health Related Quality of Life (HRQL). Of 208 children enrolled, 204 received study drug (101 magnesium, 103 placebo). The median (IQR) length of stay was 56.0 (27.0-109.0) hours for magnesium versus 47.0 (24.0-99.0) hours for placebo (p = 0.24). Magnesium patients received 1.46 mg/kg of morphine equivalents versus 1.28 mg/kg for placebo (p=0.12). Changes in HRQL before discharge and one week after discharge were similar (p > 0.05 for all comparisons). The addition of intravenous magnesium does not shorten length of stay, reduce opioid use or improve quality of life in children hospitalized for sickle cell pain crisis.



Conducting High Puiovity, High-Quality Research in Pediatuic Emergency Cave THAPCA

PECARN & THAPCA TRIAL INVESTIGATORS PUBLISH LAND-MARK STUDY ON THERAPEUTIC HYPOTHERMIA AFTER OUT-OF-HOSPITAL CARDIAC ARREST IN CHILDREN

Submitted by Sametria McCammon, MSPH Program Coordinator & Frank Moler, MD Study PI (GLEMSCRN Node)

A recent study published in *The New England Journal of Medicine* compares the efficacy of therapeutic hypothermia with therapeutic normothermia among pediatric patients after out-of-hospital cardiac arrest.

In a randomized clinical trial, eligible pediatric patients (children \geq 48 hours and <18 years) who presented at one of 38 children's hospitals in the United States and Canada between September 1, 2009 and December 31, 2012, were evaluated. Study participants were randomly assigned in a 1:1 ratio to receive therapeutic hypothermia or therapeutic normothermia. Patients were randomized using permuted blocks stratified by clinical center and age at entry. The primary study outcome was survival at 12 months post cardiac arrest with a Vineland Adaptive Behavior Scales, second edition (VBAS-II) score of 70 or higher.

A total of 1,355 patients were screened for eligibility. Of these, 475 were eligible to enroll in the study and 295 patients underwent randomization. Of the 295 patients who underwent randomization, 35 were not eligible for the primary outcome, and the final study sample was n=260. Investigators found that there was no significant difference in the primary outcome between the therapeutic hypothermia and therapeutic normothermia groups (20% vs. 12%, relative likelihood, 1.54, 95% confidence interval 0.86 to 2.76, p=0.14). In addition, the change in VBAS-II score from baseline to 12 months was not statistically significant (p=0.13). These findings were similar for 1-year survival (38% in the hypothermia vs. 29% in the normothermia group, relative likelihood 1.29, 95% confidence interval, 0.93 to 1.79, p=0.13).

Investigators concluded that pediatric patients that survived out-of-hospital cardiac arrest did not benefit from therapeutic hypothermia compared to therapeutic normothermia at 1-year post event.

<u>Federal</u> Corner

Upcoming HRSA Funding Opportunities

The Health Resources and Services Administration (HRSA) has approved, pending funding availability, three Emergency Medical Services for Children (EMSC) Funding Opportunity Announcements to be released this Fall:

Emergency Medical Services for Children Innovation and Improvement Center (EIIC) Cooperative Agreement Program.

This cooperative agreement will support a Center to develop and implement Quality Improvement (QI) education, training, and technical assistance for the EMSC Program and its grantees. QI strategies are expected to lead to measurable improvements in both prehospital and hospital pediatric emergency care systems. One award totaling \$1.5 million is anticipated for this funding opportunity.

EMSC State Partnership Regionalization of Care (SPROC). With a focus on establishing a pediatric medical recognition program, the aims for these grants are to implement compo-

nents of a regionalized system of care to (1) demonstrate fea-

sibility and generalizability to other regional and state systems and (2) expand the inclusion of communities most dependent on regionalized systems of care to include tribal, territorial, insular or rural medical facilities. Four awards totaling \$800,000 are anticipated for this funding opportunity.

EMSC Targeted Issue Grants.

This opportunity supports innovative, crosscutting projects focused on improving outcomes in pediatric emergency care across the continuum of care. Proposed projects must be of national significance, translatable into practice, meet a demonstrable need, and relate directly to improving the quality of care of pediatric emergency care services. Note that there are two categories of grant funding. Please read the FOA carefully. Five awards totaling \$1.5 million are anticipated for this funding opportunity.

For more information about these and other anticipated funding opportunities, please visit: <u>http://www.acf.hhs.gov/</u> <u>hhsgrantsforecast/index.cfm</u>. Once there, Search for "EMSC."

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Disseminating Research to Families

The EMSC Program has released its first issue of Research Highlights. Research Highlights is a quarterly fact sheet intended to increase awareness of EMSC research best practices and establish a mechanism for the targeted dissemination of research to families and the general public. The current issue is at: <u>http://</u> www.emscnrc.org/Research/Research_Highlights.aspx.

Targeted Issues Grants National Dissemination Efforts

Targeted Issue Grantees Andrew Stevens, MD (Indiana University); Manish I. Shah, MD, MS (Baylor College of Medicine and Texas Children's Hospital); and Robert Silverman, MD (Hofstra North Shore-LIJ School of Medicine at Hofstra University), in collaboration with Kathleen Brown, MD, of the EMSC National Resource Center (NRC) will present at the 2016 EMS Today Conference, scheduled for February 25-27, in Baltimore, MD. This panel will discuss innovations in pediatric out-of-hospital asthma care, including the development and implementation of evidence-based guidelines, early administration of oral steroids for exacerbations of asthma, and post-discharge maintenance and

prevention though a community paramedicine/mobile integrated healthcare model. For more information on the EMS Today 2016 conference, see http://www.emstoday.com/

index.html.

National Peds Ready Project Update



Recent EMSC-Related Publications

Detailed below are recent EMSC-related publications you may find of interest.

- Lerner, E.B., Weik, T., & Edgerton, E.A. "<u>Research in Prehospital Care: Overcoming Barriers to Success</u>." *Prehospital Emergency Care* (2015). This article determines how investigators conduct prehospital clinical trials and suggests how emergency medical services systems can develop the capacity to conduct prehospital clinical research.
- American Academy of Pediatrics, Committee on Pediatric Workforce. "<u>The Use of Telemedicine to Address Access and Physician Workforce Shortages Policy Statement</u>." *Pediatrics* (2015). This policy statement describes the expected and potential impact that telemedicine will have on pediatric physicians' efforts to improve access and physician workforce shortages. It also describes how the American Academy of Pediatrics can advocate for its members and their patients to best use telemedicine technologies to improve access to care, provide more patient- and family centered care, increase efficiencies in practice, enhance the quality of care, and address projected shortages in the clinical workforce.
- Remick, K., Kaji, A.H., Olson, L, et.al. "Pediatric Readiness and Facility Verification." Annals of Emergency Medicine (2015). This article examines pediatric readiness in California emergency departments (EDs) and determines the effect of a pediatric verification process on pediatric readiness.

In April 2015, a National Pediatric Readiness Project (NPRP) stakeholder meeting was held to discuss Pediatric Readiness (Peds Ready) Phase II activities. To increase the breadth and depth of Peds Ready, the following new organizations were invited to the meeting: the Office of the Assistant Secretary for Preparedness and Response; Indian Health Service; the American College of Surgeons, Committee on Trauma; the Children's Hospital Association; the National Rural Health Association; the Joint Commission; the National Association of State EMS Officials; and the Society of Trauma Nurses. Current national partners, the American Academy of Pediatrics (AAP), the American College of Emergency Physicians (ACEP), and the Emergency Nurses Association (ENA), led the new stakeholders in proposed project discussions to help move the pediatric readiness needle in each state. Proposed partner projects include AAP's development of a "Pediatric Quality Improvement Collaborative," ACEP's "Systemization of Pediatric Emergency Care" project, and ENA's development of "Pediatric Champion Teams". For more information on these projects, please view the archived webcast at: https://emscnrc.adobeconnect.com/p2ewSydtgob/.

The first NPRP manu-script, "<u>A National Assessment of Pediatric Readiness of Emergency Departments</u>," was released online in the *Journal of the American Medical Association Pediatrics* on April 13, 2015. Dr. Gausche-Hill, lead author of the paper, participated in numerous interviews. It is estimated that more than 100 million readers have been exposed to Peds Ready findings. Of note, this paper was also chosen as the article for the month for the *JAMA Pediatrics* Journal Club.

For more information about Peds Ready, visit http://www.PediatricReadiness.org .

<u>Upcoming webinar</u>: The EMSC Program hosted the Peds Ready webinar "*Is Your ED Ready for Children? Pediatric Emergency Care Coordinators Lead the Way to Readiness!*" on September 21. For information, go to: http://pediatricreadiness.org/News/.

Good Clinical Practice Tip



App Store Google pla

"There's an 'App' for that!"

ACRP has created a GCP App called "GCPartner."

The app is a convenient way to directly reference ICH GCP guidelines without the hassle of searching through wordy documents or websites. It's easy to use and has some very valuable and fun options such as highlighting and the ability to save notes for future reference. The app also has downloadable resources and videos that put each section into real-world context.

GCPartner is a great pocket reference and helpful tool to make clinical research easier.

Submitted by Amy Watson DCC Project Manager



TBI-KT

The study entitled "Implementation of the PECARN Traumatic Brain Injury Prediction Rules for Children Using Computerized Clinical Decision Support: An Interrupted Time Series Trial" was funded by the American Recovery and Reinvestment Act. The goal of the study was to promote the appropriate use of cranial CT for children with blunt head trauma by implementing clinical decision support to translate the PECARN Traumatic Brain Injury prediction rules into practice. The clinical trial collected data on more than 25,000 patients. The main study results were presented at the 2015 Pediatric Academic Societies and Society for Academic Emergency Medicine annual research conferences. Two manuscripts have been published with several being prepared for publication.

PECARN REGISTRY

The 1st and 2nd years of this grant concentrated on establishing the electronic health record (EHR) registry. We did this by identifying and verifying the EHR sources from each site for the performance measures to construct the registry. Data dictionary and schema documentation have been established for each variable. A central source list for each performance measure has been constructed, defining a source hierarchy for each variable. Currently the registry contains data from all ED visits for calendar years 2012- July of 2015. We have constructed and implemented automated data quality assurance rules to assess data quality and validation of the data. We have programed and produced automated monthly data quality reports to facilitate effective data quality review. Automated distribution of report cards to providers and sites is done in a staggered time series roll out, starting in October for the first sites and rolling out to the last site in April 2015. Each month we successfully distribute approximately 475 provider-level report cards.

SEIZURE

Lorazepam (seizure) study. The primary manuscript has been published. Three secondary manuscripts are in progress. Bayesian analysis is complete and a manuscript for submission to the FDA is in progress.

INTRA-ABDOMINAL INJURY

We are publishing the last manuscripts from IAI. The IAI project enrolled 12,044 patients with blunt torso trauma. 11 manuscripts have been published, including 3 in August 2015. One manuscript (Racial/ethnic disparities in IAI evaluation) is currently under review.

TRAUMATIC BRAIN INJURY

We have finished drafting all manuscripts from TBI. We have now published 21 manuscripts from this study, with the final 4 manuscripts under review (or very close). In addition, 3 manuscripts have been published from work based on the TBI Public Use Data Set (PUDS), with one more under journal review. Getting very close to closing the book of this extremely productive 10-year project. In 2015, we have published 4 manuscripts from this study. We now turn our attention to the interventional trial of tranexamic acid (TXA) for TBI.

ТНАРСА

The results for the Out of Hospital Trial were published in The New England Journal of Medicine in May 2015. The study concluded that "In comatose children who survived out-of-hospital cardiac arrest, therapeutic hypothermia, as compared with therapeutic normothermia, did not confer a significant benefit in survival with a good functional outcome at 1 year." The In-Hospital Trial was closed to further enrollment in February 2015 due to slow recruitment. Final data analysis for this trial will begin after the last patient completes the 12-month follow-up in Spring 2016. We anticipate publication of the In-Hospital Trial results in the summer 2016.

MAGiC

The primary manuscript has been accepted at *Blood*! Thanks to the DCC and all who contributed to this effort. A paper describing the study methodology was previously published in *Pediatric Blood & Cancer*. Additional manuscripts describing quality of life, transfusions, pre-consent and basic science outcomes are in various stages of completion. A presentation describing inflammatory biomarkers and acute chest syndrome was given at PAS. Secondary analysis of the basic science labs is ongoing.

ARGININE

The Arginine Feasibility study is underway. The NHLBI grant was funded in May 2015, and the protocol was released in June with subsequent submission to each sites' IRB. The pain protocol was also released to each participating site in June for review by ED physicians. The DCC is currently developing the data collection worksheets and data capture system for the chart review portion of the study. The Manual of Operations will be released, and the training webinar will be conducted in the next few months, with data collection beginning soon after.

FLUID

The study is pleasantly advancing through the tide! This NICHD-funded study will enroll approximately 1,400 children with DKA and 400 non-DKA patients over 5 years at 13 PE-CARN centers. Having recently surpassed the enrollment of 1100 DKA patients, anticipated enrollment completion is mid-2016. Additionally, over one-half of the expected non-DKA control patients have been enrolled (~260) – children with type 1 diabetes who have never had DKA. All sites are currently enrolling patients into the study and are doing a great job! Our "Methods" manuscript was published in *Pediatric Diabetes*. An additional list of papers of interest has been circulated among investigator, and we are working through the analysis plans. Two abstracts from ancillary study preparation were presented at the May 2014 PAS meeting in Vancouver; one of the resulting manuscripts is currently under review at a pediatric journal.

PATIENT SAFETY

The investigators continue to wrap up ongoing manuscripts. Manuscripts on Process Variance errors and Unsafe/Near Miss Conditions are awaiting publication. Radiology and Laboratory Errors papers were published in Pediatric Emergency Care.

Esett

Clinical hold by FDA has been lifted and study drug is being manufactured. Several sites have completed their EFIC activities. The investigator training was September 17-18 in Detroit.

PROBIOTICS

Year 2 of enrollment was completed 1 week ahead of schedule with a total of 353/900 patients. The second DSMB is tentatively scheduled for November 2015. Enrollment for year 3 will reopen at all sites in the fall. Overall follow-up rate is 93% across all time points. Pharmacy monitoring is complete with no major issues; remote access monitoring is in progress. Additionally, 15 Manuscript Analysis Request Forms (MARFs) have been received and the DCC is working to develop Manuscript Analysis Plans (MAPs).

ASSESS

Enrollment has concluded, as of June 2015. Hasbro Children's Hospital continues to conduct the long-term follow up. As of September 1st, 1268 participants have completed 12 month follow up and 65 have completed 24 month follow up. Follow up rates for 12 and 24 month follow up are 69.2% (May 2014-July 2015) and 65% (May 2015-July 2015), respectively. 12 month follow up will conclude in March 2016; 24 month follow up in March 2017.

ED-STARS

Enrollment began in late June and is picking up pace; 13 of 14 sites were enrolling by early September and over 1000 youth have been enrolled! The University of Michigan Survey Research Center began the centralized follow-up in September. Also underway is the finalization of the database and training for the Whiteriver PHS Indian Hospital site. The Study PIs are discussing manuscript topics and possible collaborative opportunities. Many thanks to the research personnel in getting this study started!

QUALITY OF CARE

The study is in the data analysis and manuscript preparation phase. This study is using an implicit review quality of care instrument to evaluate the association between a variety of care factors and quality of care. 620 chart reviews are complete. The first manuscript is currently under review. Subsequent analyses and manuscripts focusing on hospital, ED, physician, patient and presentation level factors and their associations with quality of care are well underway, with analyses nearly complete.

BIOSIGNATURES STUDY

We are continuing to analyze expression and clinical data in preparation of various abstracts and manuscripts. The manuscript of RNA biosignatures to identify infants with bacterial infections was recently submitted to NEJM. The Prediction Rule for SBI was presented at SAEM in May, 2015. We are presenting the YOS abstract at AAP and a couple more manuscripts are being prepared for submission over the next few months.

BIOSIGNATURES II

Biosignatures II has received their Notice of Grant Award and will be moving forward with Protocol and MOO development.

PECARN CORE DATA PROJECT

The PCDP database has complete data for 2002-2014.

The PCDP 2015 data submission deadline is April 15,

2016. The portal to receive data will open on February 1, 2016. Please plan to include both ICD9 and ICD10 diagnosis codes and procedure codes this year as we anticipate all sites will have moved to ICD10 reporting on October 1, 2015.

The PCDP MOO is available in eRoom (<u>https://</u>

www.nedarcssl.org/eRoom/NDDP/

<u>PECARNCoreDataProject/0_6a00</u>). Data specifications can also be found on the publically available wiki (<u>https://</u> wiki.utahdcc.org/confluence/display/PCDP/

PECARN+Core+Data+Project)

XML format is the preferred submission format for the 2016 submission period.

Submit your data through the PCDP data submission portal (<u>https://pcdp.utahdcc.org/pcdp/</u>).

The site's data dictionary should be submitted at the same time as the data to the Site Data Dictionaries folder in eRoom. If you need a log-in ID for the portal, contact Melissa Metheney. If you have questions or concerns on submitting data in XML format, please contact Jamie Bell (jamie.bell@hsc.utah.edu) or Libby Alpern (ealpern@luriechildrens.org)

PECARN New Faces & Nodal News

PEM-NEWS Node



Nathan Van Winkle is a new RA at Children's Hospital Colorado. He completed his undergrad degree in 2014 at Creighton University and his MS at Regis University in 2015. He is waiting to hear back from medical schools as his 2016 matriculation app is pending. Someday he'd like to practice medicine in a rural area. He and his fiancé look forward to enjoying Colorado over the next year and are looking forward to skiing/snowboarding for the first time and are hoping to avoid crutches if at all possible.

Laura James is a RA at Children's Hospital Colorado. She moved to Denver three years ago for graduate school. She holds a Master's in Public Health and is currently taking Criminal Justice courses with the hope of eventually working with anti-human trafficking efforts. She enjoys sipping on lattes and practicing yoga.



Lauren (Ren) Shviraga is a new RA at Children's Hospital Colorado. She calls Colorado home having lived there over 20 years, but has frequently ventured abroad. Most recently Ren served two years as a U.S. Peace Corps Health Volunteer living in the South Pacific country of Fiji. Prior to that she studied art at Metropolitan State University of Denver and graduated in 2010 with a BFA in Communication Design. Her future plans include medical school and a master's degree in public health.

Tyler Kybartas is a new RA at Children's Hospital Colorado. Originally from AZ, he attended The University of Wyoming for his undergraduate and master's degree in Kinesiology and Health Promotion. He plans on pursuing a doctorate degree in exercise physiology. He spends his free time participating in outdoor activities such as skiing, snowboarding, hiking, and cross country skiing.



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GLEMSCRN Node



Rachel Conley is a new RA at Nationwide Children's Hospital. She grew up in Dayton, Ohio and moved to Columbus to attend college at Ohio State. She graduated this past spring with a bachelor's degree in Health Sciences and a minor in Biology. She first joined the Emergency Medicine Research team as an Undergrad Assistant and was excited to join the team full-time after graduation. She plans to eventually become a Physician Assistant.

Congratulations to Amy Nowakowski, Clinical Research Coordinator Team Lead at Nationwide Children's Hospital, and her husband Mike, on the birth of their son Matthew on June 12, 2015.



Noelle Herzog is a Clinical Subjects Coordinator at the University of Michigan Hospital, C.S. Mott Children's Emergency Services. This year she was granted publication in the *Journal of Medical Psychology* for her research in self objectification processes in women, was awarded the Michigan Campus Compact Commitment to Service Award, and married her best friend of 8 yrs.

Dustin Peth is a new RA at Nationwide Children's Hospital in Columbus, Ohio. He graduated from The Ohio State University with a bachelor's in pharmaceutical sciences in May, 2015 and plans to go on to medical school.





Kristina Hart has joined Children's Hospital of MI as a RA. Kristina graduated from Brown University with a Sc.B. in Neuroscience and an A.M. in Biotechnology. She was born and raised in Detroit, MI. She plans on attending med school to become a sur-

geon, and is excited to join the PEM research team. She enjoys traveling, being a foodie, listening to music, reading, spending time with her husband and friends, and trying new things.



Kelsey Fearer is a Clinical Subjects Coordinator and the new lead RC for the Probiotics Study at the University of Michigan. She is a recent graduate from Central Michigan University with a B.S. in Health Administration, and she plans to pursue her Master's in Research Administration.



Sarah Parker is a new RA at Children's Hospital of MI. She graduated from the University of Wisconsin-Madison with a B.S. in Microbiology and cert in Global Health and has volunteered at the Madison VA Hospital as an Infection Control Project Assistant and is

excited to start in PEM research. She plans to earn her MPH and has interests in Infection Prevention and Epidemiology. She enjoys reading, yoga, and trying out new restaurants.

PRIME Node

We welcome Dr. Angela Ellison as the new HEDA PI at CHOP, and extend our gratitude to Dr. Joe Zorc for his excellent work in this role. Welcome also to Dr. Daniel Nishijima, new EMS Scientific Advisor, and Tre Waechter, new EMS Affiliate Coordinator, at Sacramento Fire. We bid adieu to Kammy Jacobsen, whose outstanding accomplishments in PECARN are well known. Dilon Stephens is the new lead RC at Primary Children's Hospital, Thomas Moore joined the CRC team at CHOP, and Rebecca Kim, Michelle Nguyen and Amanda Kelly joined the CRC team at UC Davis. Justine Cortez was recognized at UC Davis Health System for her outstanding work as CRC. Congratulations and warm welcome to all!

WBCARN Node



Vanessa Grant is no stranger to PECARN. She started as a research intern in '09, and has since become a Project Assistant, followed by a Research Coordinator for the ESETT study. She has taken hiatus a few times to complete her Medical degree, as well as her Master's in Public Health. Her ultimate plan is to complete pediatric residency and become a research PI. Vanessa credits PECARN as a driving force behind her passion for pediatric clinical research.

HOMERUN Node



Molly has joined Cincinnati Children's Hospital Medical Center. She graduated from Miami University with a B.A. in Psychology and minor in Family Relationships. She's worked in Emergency Medicine since last November and is currently pursuing a nursing degree from the University of Cincinnati while continuing to develop her skills in clinical research. She likes to read, spend time with her family (especially her 2 yr. old niece), and catch up on her favorite TV shows.

Kyle Pimenta, Senior CRC at UC Davis, and his wife Lannie welcomed their second baby girl, Nora Thanh Pimenta on May 30, 2015 at 12:23am, weighing 6lbs 14oz, 18.5".







Nicole Yergler is a new RA at Children's National Medical Center. She has prior experience in public health and international development; she combined her MPH degree with a 27-month commitment to the US Peace Corps in rural Peru. She plans on attending med school, and is interested in maternal and child healthcare and improvement of health disparities. She enjoys running/biking all over DC and takes advantage of all the city has to offer.

The Medical College of Wisconsin research team has 3 new Clinical RAs adding to our ED pool since the last newsletter. Lauren Thomas and Jaimie Voss joined the team last Oct. and Erica Gleason just hit the 6 month mark. Nichole Graves is our veteran team lead approaching 2 yrs. They provide us with robust coverage of a total of 16 studies in the ED, both PECARN and section research.

Mark Nimmer became a Data Analyst after the end of the MAGiC study. Mark and his wife, Karie, welcomed Nathaniel David in August, 2014.

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Kurt Denninghoff, MD, is the PI for SW-RNC and the Arizona HEDA at AHSC. He is an Endowed Distinguished Professor of Emergency Medicine, the Associate Head of Research at the Department of Emergency Medicine at the UA – Tucson, and the Associate Director of the Arizona Emergency Medicine Research Center (AEMRC) – Tucson. Additionally, he is a Professor of Optical Sciences with tenure and has extensive experience in leading complex clinical research projects.

Robert Sapien, MD, MMM is the Principal Investigator for the HEDA-NM. He is a Distinguished Professor of Emergency Medicine and Pediatrics and Chief of the Division of Pediatric Emergency Medicine in the Department of Emergency Medicine at the University of New Mexico (UNM) Health Sciences Center, and Associate Dean for Admissions at the UNM School of Medicine.





Darren Braude, MD, MPH, EMT-P, Associate Professor of Emergency Medicine and Anesthesiology and the Tim Fleming Endowed Professor of EMS at the University Of New Mexico School Of Medicine, serves as the Scientific Advisor for the EMS Affiliate. Dr. Braude is Chief of the EMS and Disaster Medicine Section, Program Director of the EMS Fellowship, and Medical Director of the UNM EMS Academy and several EMS agencies.

Dean Billheimer, PhD, Associate Professor of Biometry and Biostatistics and Director of the UA Statistics Consulting Laboratory, is an expert in biomedical study design and conducts statistical analysis and interpretation of study results.

Lynn Gerald, PhD, is a Professor and the Canyon Ranch Endowed Chair and Professor in the UA Mel and Enid Zuckerman College of Public Health, and Associate Director for Clinical and Health Outcomes Sciences at the Arizona Respiratory Center. She is a nationally recognized expert in childhood asthma with an emphasis on community and schoolbased interventions.



Dale Woolridge, MD, PhD, is located at AHSC. He is a Professor of Emergency Medicine and Pediatrics, Deputy Medical Director for Tucson Fire Department, a member of the Arizona EMS Council, Chair of the Pediatric Advisory Council for EMS, and Investigator of the EMSC State Partnership grant and SPROC grant. Dr. Woolridge provides a wealth of experience working with the Arizona-based EMSC and with community outreach. Under his leadership, pediatric emergency medicine has grown considerably over the past 12 yrs.

Amanda Bogie MD, is currently the Section Chief and Fellowship Director for Pediatric Emergency Medicine. Dr. Bogie has been at the OUHSC for more than 14 years, after completing Pediatric Emergency Medicine fellowship training at the University of Texas, Southwestern. Dr. Bogie is well aware of pediatric health care discrepancies, and underserved populations. In addition to expanding clinical services and establishing a Pediat-



ric Emergency Medicine Fellowship Program, her efforts have been focused on building an infrastructure capable of supporting research activities at a National level. She has frequently been invited to provide education and training lectures at ACEP on Pediatric Disaster Management.

Fernando Martinez, MD, is a Regents' Professor, a Swift-McNear Professor of Pediatrics and the Director of both the Arizona Respiratory Center and the BIO5 Institute. As he is a pediatric pulmonologist with special interest in the genetic and environmental factors that determine risk for asthma and other chronic respiratory diseases during childhood he will be an asset to the SW RNC with his expertise in asthma. Dr. Martinez has been the PI of numerous NHLBI-funded projects, including the Tucson Children's Respiratory Study (TCRS), a longitudinal study that has followed, for more than two decades, 1246 subjects enrolled at birth. He has been a member of the Board of Extramural Advisors of the NHLBI, and of the Pulmonary and Allergy Drug Advisory Committee of the FDA, and of the NAEPP Expert Panel, which developed the last two versions of the NHLBI Guidelines for the Treatment of Asthma. Currently he is a member of the NHLBI Advisory Council and member of the National Scientific Council on the Developing Child.

Data Coordinating Center



Ariel Bruton recently joined the DCC's statistical team based out of The University of Utah Health Sciences Center. Ariel has a bachelor's degree in statistics from BYU. She also has experience in data analysis and software testing for Inside Sales. Ariel will be providing statistical support for the PECARN and CPCCRN networks.



Elizabeth Morrey is our new PECARN Admin Assistant. She has 9 years experience in the healthcare industry with a background in nurse assisting, healthcare reimbursement, regulatory affairs, and business office administration. Elizabeth graduated in 2011 with a Bachelor of Science (BS) Degree in Health Care Administration and was most recently employed as an International Regulatory Affairs Specialist for a Medical Device Manufacturer located in South Jordan, Utah.

In her free time, she enjoys fishing, camping, watching her daughter play soccer, and hosting get-togethers with her family and friends.



Rachel Richards recently joined the DCC's statistical team. Rachel is currently enrolled in the MStat program at the University of Utah. She will be providing statistical support for the Pediatric Emergency Care Applied Research Network (PECARN) and The National Emergency Medical Services for Children Data Analysis Resource Center (NEDARC).

Kammy Jacobson is excited to remain part of the PECARN team in her new role of Project Manager at the DCC. She feels like she has "grown up" in the PECARN network and is thrilled to be able to stay close to her roots. Her new role covers multiple networks and she will be learning from and assisting the other project managers in PECARN as study needs arise. She will greatly miss her regular interactions with everyone at steering committee meetings and wants to thank everyone for their hard work and dedication. However, she trusts and hopes that this is not goodbye, but instead, "Until we meet again."

