

Pediatrics Research Newsletter



Advancing Research in Children's Health

Welcome to the TPMG **Pediatric Research Newsletter!**

Here, we present current or recently completed research projects led by clinician researchers as well as ongoing studies led by investigators at the Division of Research (DOR) that involve our clinician researchers.

Conducting research to improve care is important to many KPNC TPMG clinicians and DARE is proud to provide our physicians with research collaboration opportunities through several [DARE funding mechanisms](#).

In this issue, we will provide you with updates regarding research interests among TPMG clinicians and a list of the incredible recently published research.



A Deeper Look Inside This Update:

- Research Highlight
- Upcoming events & funding
- Specialty Announcements
- Active and recent research projects
- Recent peer reviewed publications

Research Highlight:

Assessing the Risk of Urinary Tract Infection and Invasive Bacterial Infection in Febrile Infants Aged 7-90 Days With COVID-19

Authors: Greenhow TL, Nguyen TH, Somers MJ, Vinson DR, Mark DG, Van Winkle PJ, Reed ME, DiLena DD, Rauchwerger AS, Ballard DW | *Cureus* | April 16, 2025

This retrospective study evaluated 622 infants aged 7-90 days with COVID-19 presenting to community emergency departments, including 329 who were febrile, to determine the rate of concomitant urinary tract infection (UTI) or invasive bacterial infection (IBI). Among febrile infants who underwent testing, UTI prevalence was low (2%), bacteremic UTI was rare (0.6%), and no cases of treated bacterial meningitis were identified, although cerebrospinal fluid was infrequently obtained. Blood culture contamination was relatively common (10.3%), and more limited evaluations were observed in older infants and later in the pandemic. Higher white blood cell and absolute neutrophil counts, along with abnormal urinalysis and microscopy, were associated with UTI. Overall, the findings suggest that well-appearing febrile infants with COVID-19 are at low risk for serious bacterial co-infection, supporting a focused evaluation strategy that at minimum includes urinalysis with microscopy in infants aged 7-60 days.

[PubMed abstract](#)

Upcoming Events

Pediatric Academic Societies (PAS) Meeting 2026

Dates: April 23-27, 2026

Location: Boston, MA, USA

For more information: [2026 MEETING - PAS Meeting](#)

Pediatric Hospital Medicine (PHM) Meeting 2026

Dates: August 6-9, 2026

Location: Kansas City, MO, USA

For more information: [2026 Pediatric Hospital Medicine Conference](#)

ID Week 2026 (Infectious Diseases)

Dates: October 21-24, 2026

Location: Washington, DC, USA

For more information: [IDWeek Home](#)

Internal Funding & Research Resources



General Funding Opportunities



Delivery Science and Applied Research



Specialty Research Networks



Getting Started with Research



Division of Research

Announcements

Our inaugural newsletter highlights the outstanding work of pediatric researchers across the Division of Research, the Vaccine Study Center, and our clinician-researcher community. Over the past year, pediatric investigators have been highly productive, publishing 57 peer-reviewed manuscripts and securing several community health grants that support research aimed at improving child health within our communities.

Looking ahead, this momentum continues into 2026, with multiple pediatric researchers receiving new community health grants to advance innovative projects focused on pediatric care and population health. In addition, our pediatric research community will have a strong presence at the upcoming Pediatric Academic Societies (PAS) Meeting in April, with four poster presentations and two oral presentations showcasing recent findings.

The ARCH-BRIDGE collaboration reflects our shared commitment to translating research into meaningful clinical change. This initiative focuses on strengthening the connection between research discoveries and frontline clinical practice. The current project is centered on standardizing the evaluation and management of hypothermic infants presenting for care, with the goal of improving consistency, safety, and outcomes across our system.

Active or Recently Completed Research Projects and Collaborations

Patterns in Pediatric Urinary Tract Infection (UTI) Diagnosis, Imaging Practices and Outcomes and Implications for Improving UTI Management

Tara Greenhow | Stanford, Gerber | 2025 Ongoing

Incidence and risk factors for serious infection in young infants with mild hypothermia

Tran Nguyen | Community Health | 2025 Ongoing

Early Developmental Screening and Treatment Engagement

Meghan Davignon, Cynthia Campbell, Teresa Lin | Rapid Analytics Unit | 2023 Ongoing

Infant Fever (INF) STEWARD (Standardizing Emergency Work-up Around Risk Data)

Tara Greenhow & Dustin Ballard | Garfield Memorial Fund | 2021 Ongoing

Moderna Cytomegalovirus Child Hearing and Autism Study (MOCCHA)

Lisa Croen | Moderna Therapeutics | 2023 Ongoing

Identifying Sociodemographic and Clinical Predictors of Behavioral Health Service Utilization among Children Referred for Autism Spectrum Disorder Evaluations

Lisa Croen & Meghan Davignon | Kaiser Permanente Community Health - CRC | 2026 Ongoing

Patterns of Occult Spinal Dysraphism in Infants: Cutaneous Indicators, Diagnostic Imaging Outcomes, and the Role of Demographics in Diagnosis

Maryam Ashfar | Kaiser Permanente Community Health - CRC | 2026 Ongoing

Geospatial patterns of child lead screening outcomes

Stacey Alexeeff | Kaiser Permanente Community Health - CRC | 2026 Ongoing

Integrating the Pediatric Medical Home with Early Education: Assessing the value of KP partnership with The Primary School

Paul Espinas | Kaiser Permanente Community Health - CRC | 2026 Ongoing

Identifying sociodemographic and clinical predictors of behavioral health service utilization among children referred for autism spectrum disorder evaluations

Luke Grosvenor | Kaiser Permanente Community Health - CRC | 2026 Ongoing

Recent Peer Reviewed Pediatrics Authored Publications in 2025

**KPNC Authors listed in alphabetical order below; for details on full list of authors and order, click on the link included to the PubMed Abstract*

Effectiveness of 2024-2025 COVID-19 Vaccines in Children in the United States - VISION, August 29, 2024-September 2, 2025

Authors: Block, Lawrence S; Hansen, John; Jacobson, Karen B; Klein, Nicola P; Zerbo, Ousseny | Mmwr. Morbidity And Mortality Weekly Report | December 11, 2025 | [PubMed abstract](#)

Effectiveness of 2023-2024 Coronavirus Disease 2019 (COVID-19) Vaccines in Pregnant Women

Authors: Fireman, Bruce; Hansen, John; Klein, Nicola P; Timbol, Julius; Zerbo, Ousseny | Obstetrics And Gynecology | December 11, 2025 | [PubMed abstract](#)

Effectiveness of 2023-2024 COVID-19 Vaccines in Children in the United States

Authors: Block, Lawrence S; Hansen, John; Jacobson, Karen B; Klein, Nicola P; Zerbo, Ousseny | Pediatrics | December 1, 2025 | [PubMed abstract](#)

Polysubstance use in pregnancy: Findings from a population-based cross-sectional cohort study of pregnant women with opioid use Authors: Campbell, Cynthia I; Hedderson, Monique; Kuzniewicz, Michael W; Li, Sherian Xu | Drug And Alcohol Dependence | December 1, 2025 | [PubMed abstract](#)

Cumulative exposure to opioids and benzodiazepines in extremely preterm neonates Authors: Kuzniewicz, Michael W; Lahiri, Aditi | Journal Of Perinatology : Official Journal Of The California Perinatal Association | November 27, 2025 | [PubMed abstract](#)

Effectiveness of Tdap5 vaccination in pregnancy at preventing infant pertussis Authors: Bartlett, Joan; Fireman, Bruce; Hansen, John; Hyman, Amber H; Klein, Nicola P; Zerbo, Ousseny | American Journal Of Obstetrics And Gynecology | November 21, 2025 | [PubMed abstract](#)

Near real-time surveillance and tree-based data mining to assess the safety of respiratory syncytial virus vaccines in older adults in the vaccine safety datalink Authors: Bartlett, Joan; Fireman, Bruce; Klein, Nicola P | Vaccine | November 20, 2025 | [PubMed abstract](#)

Lifestyle Medicine as a Framework for High-Value Care: A Position Statement From the American College of Lifestyle Medicine Authors: Collins, Allison E | American Journal Of Lifestyle Medicine | November 12, 2025 | [PubMed abstract](#)

AI, Health, and Health Care Today and Tomorrow: The JAMA Summit Report on Artificial Intelligence Authors: Lee, Kristine L; Lieu, Tracy A; Liu, Vincent; Ouyang, David | JAMA | November 11, 2025 | [PubMed abstract](#)

Electronic Visit Use and Resolution Rates for Adult Outpatient Conditions in an Integrated Care Setting Authors: Huang, Jie; Lieu, Tracy A; Reed, Mary E; Tran, Khai V | JAMA Network Open | November 3, 2025 | [PubMed abstract](#)

Pharmacist care for attention-deficit/hyperactivity disorder electronic medication refills: A cluster randomized trial Authors: Ahmed, Omar; Lee, Kristine L; Lieu, Tracy A; Mancha, Michelle R; Parry, Daniel D; Prausnitz, Stephanie; Quesenberry, Charles P; Reed, Mary E; Smallberg, Eric D; Warton, Margaret M; deLaunay, Andrew M | Journal Of Managed Care & Specialty Pharmacy | November 1, 2025 | [PubMed abstract](#)

Clinical immunization safety assessment (CISA) project: COVID-19 vaccine consultations and case reviews Authors: Klein, Nicola P | Vaccine | October 24, 2025 | [PubMed abstract](#)

A review of methodologic & data considerations for vaccine safety surveillance in the wake of the COVID-19 pandemic Authors: Klein, Nicola P | Vaccine | October 3, 2025 | [PubMed abstract](#)

Prevalence of Serious Infection Among Hypothermic Young Infants Across Medical Settings Authors: Bornstein, Lea M; Greenhow, Tara; Nguyen, Tran H; Samiezade-Yazd, Zahra; Young, Beverly R | Hospital Pediatrics | October 1, 2025 | [PubMed abstract](#)

Ethics of Lifestyle Counsel Alone in a GLP-1 Era Authors: Stephenson, Kathryn M | JAMA Pediatrics | September 22, 2025 | [PubMed abstract](#)

Performance of an artificial intelligence algorithm for interpreting lung sounds from children hospitalised with pneumonia in Malawi Authors: Smith, Zachary H | Journal Of Global Health | September 19, 2025 | [PubMed abstract](#)

Optimizing Care for Neutropenic Fever in Pediatric Patients: An Analysis of Treatment Approaches and Clinical Outcomes Authors: Bhattacharjee, Saptati; Hu, Caroline Y; Ritterman Weintraub, Miranda; Tucker, Lue-Yen S; Zhao, Yanting | The Permanente Journal | September 15, 2025 | [PubMed abstract](#)

Neonatal Dermatology Authors: Nanni, Sarah D | Primary Care | September 1, 2025 | [PubMed abstract](#)

Discordance Between Observed vs Expected Prevalence of UTI in Newborns With Hyperbilirubinemia Authors: Jiang, Sheng-Fang; Kane, Miranda; Nayak, Krishna | Hospital Pediatrics | September 1, 2025 | [PubMed abstract](#)

Maternal fever during labor and the risk of neonatal encephalopathy: duration and magnitude of hyperthermia Authors: Kuzniewicz, Michael W | American Journal Of Obstetrics And Gynecology | August 5, 2025 | [PubMed abstract](#)

Neonatal Hyperbilirubinemia Authors: Kuzniewicz, Michael W; Wickremasinghe, Andrea C | Pediatric Clinics Of North America | August 1, 2025 | [PubMed abstract](#)

The Feasibility and Impact of Implementing Brief Educator Development Sessions in Underresourced Residency Training Sites Authors: Mendez-Kohlbeier, Cynthia; Silver, Adrienne M | Journal Of Graduate Medical Education | August 1, 2025 | [PubMed abstract](#)

Risk of Immune Thrombocytopenic Purpura Recurrence Following Second Measles-Containing Vaccine Dose Authors: Fireman, Bruce; Goddard, Kristin S; Klein, Nicola P; Modarelli, Sharareh; Ross, Pat; Zerbo, Ousseny | Pediatrics | August 1, 2025 | [PubMed abstract](#)

Effectiveness of Nirsevimab Against RSV and RSV-Related Events in Infants Authors: Fireman, Bruce; Hansen, John; Hyman, Amber H; Klein, Nicola P; Timbol, Julius; Zerbo, Ousseny | Pediatrics | August 1, 2025 | [PubMed abstract](#)

Effectiveness of a Streamlined Educational Experience: Improving Resident Medical Knowledge and Comfort Level in Pediatric Hematology and Oncology

Authors: Concannon, Alexandra A | Journal Of Cancer Education : The Official Journal Of The American Association For Cancer Education | July 29, 2025 | [PubMed abstract](#)

Implementation of Family-Based Treatment for Primary Care in a novel healthcare system: description of the adaptation process Authors: Fort, Victoria; Kusumoputro, Sydney; Lau, Josephine S; Lee, Heather C; Pierce, Lindsey S; Timm, Jenna A; Tran, Ann; Villarta, Michelle C | Eating Disorders | July 3, 2025 | [PubMed abstract](#)

Dynamics of Respiratory Syncytial Virus Illness and Serology During Pregnancy and Infancy in the United States and South Africa Authors: Klein, Nicola P | Open Forum Infectious Diseases | July 1, 2025 | [PubMed abstract](#)

Pediatric Blood Culture Contamination Rates and Risk Factors in a Large Integrated Health System Authors: Childress, Kelsey; Cooch, Peter B; Fernandes, Giselle F; Fong, Nancy S; Hartmann, Michael; Kwan, Marilyn L | Hospital Pediatrics | July 1, 2025 | [PubMed abstract](#)

High Prevalence of Prediabetes Among Asian and Pacific Islander Adolescents With Overweight or Obesity in a Primary Care Population Authors: Greenspan, Louise C; Njuguna, Veronica W; Darbinian, Jeanne; Gunderson, Erica P; Lo, Joan C; Rodriguez, Luis A; Gunderson, Erica P; Lo, Joan C; Rodriguez, Luis A | Diabetes Care | June 30, 2025 | [PubMed abstract](#)

Influenza Vaccination During Pregnancy and Infant Influenza in the First 6 Months of Life Authors: Fireman, Bruce; Goddard, Kristin S; Modaressi, Sharareh; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | Obstetrics And Gynecology | June 26, 2025 | [PubMed abstract](#)

Maternal Social Determinants of Health and Risk of Perinatal Hypoxic-Ischemic Encephalopathy Authors: Kuzniewicz, Michael W | JAMA Neurology | June 16, 2025 | [PubMed abstract](#)

Concurrent validity testing of the patient perspective of arrhythmia questionnaire Authors: James, Jameze H | Health And Quality Of Life Outcomes | June 7, 2025 | [PubMed abstract](#)

Estimated 2023-2024 COVID-19 Vaccine Effectiveness in Adults Authors: Block, Lawrence S; Fireman, Bruce; Hansen, John; Timbol, Julius; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | JAMA Network Open | June 2, 2025 | [PubMed abstract](#)

Recombinant Zoster Vaccination and Risk of Postherpetic Neuralgia or Zoster Ophthalmicus Authors: Bartlett, Joan; Fireman, Bruce; Goddard, Kristin S; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | JAMA Network Open | June 2, 2025 | [PubMed abstract](#)

Barriers, Facilitators, and Time Costs of Implementing a Pediatric Clinical Pathway Intervention Authors: Aziz, Sara M | Hospital Pediatrics | June 1, 2025 | [PubMed abstract](#)

Maternal Prenatal Cannabis Use and Major Structural Birth Defects

Authors: Ansley, Deborah R; Castellanos, Carley L; Steuerle, Kristin R; Adams, Sara R; Alexeeff, Stacey; Does, Monique; Oberman, Nina; Avalos, Lyndsay A; Young-Wolff, Kelly C; Avalos, Lyndsay A; Young-Wolff, Kelly C | Birth Defects Research | June 1, 2025 | [PubMed abstract](#)

Coronavirus Disease 2019 (COVID-19) Vaccination and Spontaneous Abortion

Authors: Klein, Nicola P; Klein, Nicola P | Obstetrics And Gynecology | May 2, 2025 | [PubMed abstract](#)

Fetal exposure to gestational diabetes severity and postnatal infant feeding in the first year of life associated with preadolescent obesity: a prospective cohort

Authors: Greenspan, Louise C; Wakimoto, Patricia; Basi, Tamanjit; King, Alexis S; Quesenberry, Charles P; Sun, Baiyang; Gunderson, Erica P; Lo, Joan C; Gunderson, Erica P; Lo, Joan C | Obesity (Silver Spring, Md.) | May 1, 2025 | [PubMed abstract](#)

Educating Teens and Parents on the Dangers of Fentanyl and Connecting Them to Naloxone Resources

Authors: Albarran Garcia, Daisy; Padalkar, Padmaja; Peregrino, Jenny Lee D; Tom, Wynnyee L | The Journal Of Adolescent Health : Official Publication Of The Society For Adolescent Medicine | May 1, 2025 | [PubMed abstract](#)

Pediatric Resident Perspectives on How to Teach about Neonatal Health

Inequities: A Multi-Site Exploratory Study Authors: Fong Gomez, Stephanie Y | Academic Pediatrics | April 23, 2025 | [PubMed abstract](#)

Attitudes of California school personnel on potential COVID-19 vaccine mandates and state law SB277 to remove nonmedical vaccine exemptions

Authors: Goddard, Kristin S; Klein, Nicola P; Klein, Nicola P | Vaccine | April 11, 2025 | [PubMed abstract](#)

Predicting progression of STEC-HUS: Use of Shiga toxin subtype and routine laboratory screening

Authors: Cranshaw, Matthew W; Greenhow, Tara; Luu, Xing; Maleknia, Lydia; Ritterman Weintraub, Miranda; Samiezade-Yazd, Zahra | Journal Of The Pediatric Infectious Diseases Society | April 8, 2025 | [PubMed abstract](#)

Patterns in prescribing and dispensing of influenza antivirals among adults with influenza presenting to urgent care and emergency department settings, VISION Network, 2023-2024

Authors: Fireman, Bruce; Jacobson, Karen B; Timbol, Julius; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | Clinical Infectious Diseases | April 4, 2025 | [PubMed abstract](#)

Likes and Hashtags: Exploring the Potential Relationship Between Social Media use and the Emotional Wellbeing of Oncology Professionals Authors: Lucas, Tiffany L | Pediatric Blood & Cancer | April 1, 2025 | [PubMed abstract](#)

COVID-19 and Completion of Select Routine Childhood Vaccinations Authors: Klein, Nicola P; Klein, Nicola P | Pediatrics | April 1, 2025 | [PubMed abstract](#)

iSPOT: Creation and Implementation of a National Peer Observation and Feedback Program Authors: Webb, Nicole E | Hospital Pediatrics | April 1, 2025 | [PubMed abstract](#)

Assessing the Risk of Urinary Tract Infection and Invasive Bacterial Infection in Febrile Infants Aged 7-90 Days With COVID-19 Authors: Ballard, Dustin; Greenhow, Tara; Mark, Dustin G; Nguyen, Tran H; Vinson, David R; Dilena, Daniel D; Rauchwerger, Adina; Somers, Madeline J; Reed, Mary E; Reed, Mary E | Cureus | April 1, 2025 | [PubMed abstract](#)

Genetic analysis and multimodal imaging confirm m.12148 T > C mitochondrial variant pathogenicity leading to multisystem dysfunction Authors: Young, Jill L | Molecular Genetics And Metabolism | March 1, 2025 | [PubMed abstract](#)

Alcohol, Cannabis, and nicotine use during early pregnancy and infant hearing loss Authors: Ansley, Deborah R; Castellanos, Carley L; Steuerle, Kristin R; Alexeeff, Stacey; Oberman, Nina; Avalos, Lyndsay A; Croen, Lisa; Young-Wolff, Kelly C; Avalos, Lyndsay A; Croen, Lisa; Young-Wolff, Kelly C | Preventive Medicine | March 1, 2025 | [PubMed abstract](#)

Interim Estimates of 2024-2025 COVID-19 Vaccine Effectiveness Among Adults Aged ≥18 Years - VISION and IVY Networks, September 2024-January 2025 Authors: Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | Mmwr. Morbidity And Mortality Weekly Report | February 27, 2025 | [PubMed abstract](#)

Interim Estimates of 2024-2025 Seasonal Influenza Vaccine Effectiveness - Four Vaccine Effectiveness Networks, United States, October 2024-February 2025 Authors: Klein, Nicola P; Klein, Nicola P | Mmwr. Morbidity And Mortality Weekly Report | February 27, 2025 | [PubMed abstract](#)

Vaccination During Pregnancy in the Vaccine Safety Datalink, 2002-2022 Authors: Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | The Pediatric Infectious Disease Journal | February 1, 2025 | [PubMed abstract](#)

Pharmacist vs physician management of e-visit requests for COVID-19 medication: A randomized clinical trial Authors: Chan, Milton B; deLaunay, Andrew M; Huynh, Thao N; Lee, Kristine L; Mancha, Michelle R; Smallberg, Eric D; Prausnitz, Stephanie; Quesenberry, Charles P; Warton, Margaret M; Lieu, Tracy A; Reed, Mary E;

Lieu, Tracy A; Reed, Mary E | Journal Of Managed Care & Specialty Pharmacy | February 1, 2025 | [PubMed abstract](#)

Informing Maternal Immunization Trials: An Observational Study to Assess Background Rates of Maternal, Pregnancy, and Neonatal/Infant Outcomes

Authors: Lewis, Edwin M; Hansen, John; Hyman, Amber H; Timbol, Julius; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | The Pediatric Infectious Disease Journal | February 1, 2025 | [PubMed abstract](#)

Effectiveness of 13-valent pneumococcal conjugate vaccine against vaccine-type invasive pneumococcal disease in older adults

Authors: Lewis, Edwin M; Hansen, John; Hyman, Amber H; Timbol, Julius; Klein, Nicola P; Klein, Nicola P | Vaccine | January 12, 2025 | [PubMed abstract](#)

Uptake of Maternal RSV Vaccination and Infant Nirsevimab Among Infants Born October 2023 to March 2024

Authors: Fireman, Bruce; Jacobson, Karen B; Merchant, Maqdooda A; Watson, Andrew J; Klein, Nicola P; Zerbo, Ousseny; Klein, Nicola P; Zerbo, Ousseny | JAMA Network Open | January 2, 2025 | [PubMed abstract](#)

Creating pragmatic, rapid-cycle, evidence-based innovation: The Kaiser Permanente Northern California Delivery Science and Applied Research (DARE) program

Authors: Chen, Yi-Fen I; Rouillard, Smita S; Corley, Douglas A; Lieu, Tracy A; Schmittdiel, Julie A; Lieu, Tracy A; Schmittdiel, Julie A | Learning Health Systems | January 1, 2025 | [PubMed abstract](#)

