

**Stephen W. Patrick, MD, MPH, MS, FAAP**

William R. Long Directorship in Child Health Policy

Director, Vanderbilt Center for Child Health Policy

Executive Director, Firefly

Professor of Pediatrics, Health Policy, Leadership, Policy, and Organizations

Division of Neonatology

Vanderbilt University School of Medicine

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**EDUCATION**

8/1998-5/2002	BS, Microbiology and Cell Science, <i>Highest Honors</i> University of Florida, Gainesville, FL
5/2002-5/2007	MD Florida State University College of Medicine, Tallahassee, FL
9/2005-11/2007	MPH, Health Policy and Management Harvard University School of Public Health, Boston, MA
07/2010-12/2011	MS, Health and Health Care Research University of Michigan, Ann Arbor, MI

**POST-DOCTORAL TRAINING**

6/2007-6/2010	House Officer Department of Pediatrics and Communicable Diseases University of Michigan Health System, Ann Arbor, MI
7/2010-6/2012	Robert Wood Johnson Foundation Clinical Scholar University of Michigan Health System, Ann Arbor, MI
7/2010-6/2013	Neonatal-Perinatal Medicine Fellow Department of Pediatrics and Communicable Diseases University of Michigan Health System, Ann Arbor, MI

**Certifications**

2005-present	Pediatric Advanced Life Support
2005-present	Basic Life Support/Advanced Cardiac Life Support
2007-present	Neonatal Resuscitation Program
2013-present	Neonatal Resuscitation Program Instructor

**License**

5/2010-2014	Board of Medicine, State of Michigan #4301090178
5/2013-present	Board of Medicine, State of Tennessee #50051

**Board Certification**

10/2011-present	American Board of Pediatrics – Pediatrics
04/2014-present	American Board of Pediatrics – Neonatal-Perinatal Medicine

## **ACADEMIC, ADMINISTRATIVE, AND CLINICAL APPOINTMENTS**

10/2023-present	<p>Professor of Pediatrics, Health Policy, Leadership, Policy, and Organizations with Tenure</p> <p>Division of Neonatology</p> <p>Vanderbilt Center for Child Health Policy</p> <p>Vanderbilt Center for Research on Inequality and Health</p> <p>Vanderbilt Center for Health Services Research</p> <p>Vanderbilt Center for Addiction Research</p> <p>Vanderbilt Kennedy Center</p> <p>Vanderbilt University Medical Center</p> <p>Nashville, TN</p>
9/2023-present	Associate Professor of Leadership, Policy, and Organizations
3/2023-present	William R. Long Endowed Director in Child Health Policy
3/2023-present	Faculty Affiliate for the Vanderbilt Center for Research on Inequality and Health
7/2019-present	<p>Associate Professor of Pediatrics and Health Policy with tenure</p> <p>Division of Neonatology</p> <p>Vanderbilt Center for Health Services Research</p> <p>Vanderbilt Center for Addiction Research</p> <p>Vanderbilt Kennedy Center</p> <p>Vanderbilt University Medical Center</p> <p>Nashville, TN</p>
7/2013-6/2019	<p>Assistant Professor of Pediatrics and Health Policy</p> <p>Division of Neonatology</p> <p>Vanderbilt Center for Health Services Research</p> <p>Vanderbilt Center for Addiction Research</p> <p>Vanderbilt University Medical Center</p> <p>Nashville, TN</p>
4/2018-present	<p>Director, Vanderbilt Center for Child Health Policy</p> <p>(<a href="http://www.childpolicy.org">www.childpolicy.org</a>)</p> <ul style="list-style-type: none"> <li>- 25 affiliated members, 6 staff with areas focused on the opioid crisis, child welfare, adolescent mental health, and health equity.</li> <li>- Lead rapid assessments of parents through <a href="#">polling</a> to understand challenges faced by parents including vaccine hesitancy, food insecurity, and mental health, which have been cited by the <a href="#">Surgeon General</a>, in <a href="#">local</a> and <a href="#">national</a> media.</li> </ul>
5/2018-present	<p>Adjunct Physician Policy Researcher</p> <p>RAND Corporation</p> <p>Santa Monica, CA</p> <ul style="list-style-type: none"> <li>- Serve as a Co-Investigator for the Opioid Policy Tools and Information Center (OPTIC), providing content expertise on teams developing novel approaches to evaluating state opioid policies.</li> </ul>
1/2020-present	<p>Executive Director, Firefly</p> <p>(<a href="http://www.fireflytn.org">www.fireflytn.org</a>)</p>

- Secured \$5.3 million in funding from the Centers for Medicare and Medicaid Innovation in partnership with TennCare, the Tennessee Medicaid Program, to launch program.
  - Manage a staff of 22 which cared for more than 300 women treated in 2 years of operations, improving treatment retention and clinical outcomes with low rates of preterm birth and newborn withdrawal.
  - Led teams which created federal data reporting systems, establishment of quality improvement infrastructure, novel patient incentive programs, and financial sustainability through contracting and billing.
- 9/2021-12/2022 Co-Director, Health Equity Research Committee, Institute for Medicine and Public Health, Vanderbilt University Medical Center and Vanderbilt University
- Conducted cross-institutional needs assessment to the needs of faculty conducting equity-focused research, held social gatherings to promote connection, and social media campaigns to highlight equity-focused research at each institution.

### **VISITING APPOINTMENTS**

- 2016 Visiting Professor, Tufts University School of Medicine, Department of Pediatrics, Division of Newborn Medicine. March 10, 2016
- 2016 Marie McCormick Lectureship in Neonatal Health Services Research and Epidemiology, Visiting Professor, Harvard Medical School, Beth Israel Deaconess Medical Center Department of Neonatology, May 19, 2016
- 2016 Visiting Professor, Harvard Medical School, Boston Children's Hospital Division of Newborn Medicine, May 20, 2016
- 2017 Visiting Professor, University of Michigan, Department of Pediatrics, Division of Neonatal-Perinatal Medicine, February 21-22, 2017
- 2019 Teresa and Byron Pollitt Family Chair in Fetal & Neonatal Medicine Visiting Professor's Lectureship, Children's Hospital of Los Angeles/University of Southern California, Division of Neonatology, September 19, 2019

### **GOVERNMENT SERVICE**

#### *Appointments*

- 8/2013-6/2015 Senior Science Policy Advisor, Office of National Drug Control Policy, Executive Office of the President, The White House, Washington, D.C.

- Provided content expertise on maternal child health, opioid use disorder, and neonatal opioid withdrawal syndrome, including informing items for the National Drug Control Strategy.
- 7/2014-12/2018      Advisor, Division of Family Health and Wellness, Tennessee Department of Health, State of Tennessee, Nashville, Tennessee
- Provided content expertise for Title V, including efforts to evaluate public health surveillance of neonatal abstinence syndrome reporting and perinatal transmission of Hepatitis C virus.
- 6/2015-9/2016      Expert consultant, *A Guide to the Management of Opioid-Dependent Pregnant and Parenting Women and Their Children*, Substance Abuse and Mental Health Services Administration, Department of Health and Human Services, Rockville, MD
- Provided content expertise in the drafting of the Agency's guidelines focused on the treatment of pregnant women with opioid use disorder and infants with neonatal opioid withdrawal syndrome.
- 7/2015-7/2017      Advisory Board Member, Multi-State Plan Program Advisory Board, National Healthcare Operations, Healthcare & Insurance Division, U.S. Office of Personnel Management, Washington, D.C.
- Served as a consultant for OPM's efforts to manage the multi-state plan program which was created as part of the Affordable Care Act.
- 6/2016-present      Special Government Employee, Analgesic Drug Products Advisory Committee, Division of Anesthesia, Analgesia and Addiction Products, U.S. Food and Drug Administration, Department of Health and Human Services, Silver Spring, MD.
- September 15-16, 2016: Temporary Voting Member, Joint Meeting of the Anesthetic and Analgesic Drug Products Advisory Committee, the Drug Safety and Risk Management Advisory Committee, and the Pediatric Advisory Committee Meeting to discuss the appropriate development plans for establishing the safety and efficacy of prescription opioid analgesics for pediatric patients.
- September 11, 2017: Temporary Voting Member, Pediatric Advisory Committee, Benefit/Risk Assessment of Prescription Opioid Antitussive Products for Treatment of Cough in Pediatric Patients

September 14, 2017: Temporary Voting Member, Joint Meeting of the Anesthetic and Analgesic Drug Products Advisory Committee and the Drug Safety and Risk Management Advisory Committee

September 26, 2019: Temporary Voting Member, Pediatric Advisory Committee/Drug Safety and Risk Management Advisory Committee

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|----------------|---|
| 8/2016-11/2016 | <p>Member, Technical Advisory Group, Neonatal Episodes of Care, Health Care Financing and Administration, State of Tennessee, Nashville, Tennessee</p> <ul style="list-style-type: none"> <li>- Provided expertise in maternal-child health in the crafting of risk-adjusted models focused on incentivizing high-value care for critically ill infants.</li> </ul>   |
| 9/2018-9/2022  | <p>Guest Researcher, Centers for Disease Control and Prevention, Division of Reproductive Health, Atlanta, Georgia.</p> <ul style="list-style-type: none"> <li>- Provide content expertise on opioid use disorder in pregnancy, including mentorship to staff in the drafting of manuscripts.</li> </ul>  |
| 10/2021-9/2022 | <p>Senior Policy Advisor, Office of National Drug Control Policy, Executive Office of the President, The White House, Washington, D.C.</p> <ul style="list-style-type: none"> <li>- Established and led an interagency policy committee with members across the Executive Office of the President, Department of Health and Human Services, Department of Justice, Department of Education, Department of Veteran Affairs, and Department of Defense.</li> <li>- Led the drafting of the Administration's action plan "<a href="#">Substance Use Disorder in Pregnancy: Improving Outcomes for Families</a>," and the development of public-facing educational materials focused on medications for opioid use disorder in <a href="#">pregnancy</a> and <a href="#">stigma</a>.</li> <li>- Led a process, along with a federal contractor, to draft state <a href="#">model legislation</a> focused on state implementation of family care plans for families affected by substance use disorder.</li> </ul> |

*Reviews*

- |      |   |
|------|---|
| 2014 | <p>Expert Reviewer, Substance Abuse and Mental Health Services Administration and National Center on Substance Abuse and Child Welfare, <i>Medication-Assisted Treatment for Pregnant Women with Opioid Dependence: Practice and Policy Considerations for Health Care, Addiction Treatment Providers, Child Welfare and Courts</i></p> |
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- 2018 Reviewer, National Academies of Sciences, Engineering, and Medicine. 2018. *Medication-assisted treatment for opioid use disorder: Proceedings of a workshop—in brief*. Washington, DC: The National Academies Press  
doi: <https://doi.org/10.17226/25322>.
- Testimonies*  
6/24/2015 Witness, United States House of Representatives, Energy and Commerce Committee, Health Subcommittee. Examining Public Health Legislation. Testimony provided on the Protecting Our Infants Act of 2015 and neonatal abstinence syndrome.  
Testimony: <http://energycommerce.house.gov/hearing/examining-public-health-legislation-hr-2820-hr-1344-and-hr-1462>  
Law: <https://www.congress.gov/114/plaws/publ91/PLAW-114publ91.pdf>
- 3/15/2016 Witness, Tennessee General Assembly, House Criminal Justice Subcommittee, Testimony provided on House Bill 1660 and neonatal abstinence syndrome.  
<http://wapp.capitol.tn.gov/apps/BillInfo/default.aspx?BillNumber=HB1660&GA=109>
- 2/8/2018 Witness, United States Senate; Committee on Health, Education, Labor and Pensions. “The Opioid Crisis: Impact on Children and Families.”  
Testimony: <https://www.help.senate.gov/hearings/the-opioid-crisis-impact-on-children-and-families>  
Law: <https://www.congress.gov/bill/115th-congress/house-bill/6>
- 1/15/2020 Witness, Tennessee General Assembly, Senate Health and Welfare  
1/29/2020 Committee. “Neonatal Abstinence Syndrome.”
- 1/23/2020 Witness, Medicaid and CHIP Payment and Access Commission. “Access to Treatment for Pregnant Women with Substance Use Disorder and Infants with Neonatal Abstinence Syndrome.”  
[https://www.macpac.gov/public\\_meeting/january-2020-macpac-public-meeting/](https://www.macpac.gov/public_meeting/january-2020-macpac-public-meeting/)

## **PROFESSIONAL ASSOCIATIONS**

- 2003-present American Academy of Pediatrics  
Section on Neonatal-Perinatal Medicine
- 2013-present American Medical Association
- 2014-present AcademyHealth
- 2015-present Society for Pediatric Research
- 2020-present Zero to Three

**NIH STUDY SECTION**

2023-present      Standing Member, Organizational and Delivery of Health Services Study Section

**SCIENTIFIC REVIEWER FOR PEER-REVIEWED JOURNALS**

2011-present      *Journal of Health Care for the Poor and Underserved*  
 2012-present      *American Journal of Preventive Medicine*  
 2012-present      *Pediatrics*  
 2013-present      *American Journal of Public Health*  
 2013-present      *The Journal of the American Medical Association*  
 2014-present      *Maternal and Child Health Journal*  
 2014-present      *Journal of Perinatology*  
 2014-present      *Pediatric Drugs*  
 2015-present      *American Journal of Perinatology*  
 2015-present      *Academic Pediatrics*  
 2015-present      *The Joint Commission Journal on Quality and Patient Safety*  
 2015-present      *The Journal of Pediatrics*  
 2015-present      *Child Maltreatment*  
 2015-present      *The New England Journal of Medicine*  
 2016-present      *JAMA Pediatrics*  
 2016-present      *JAMA Psychiatry*  
 2016-present      *Addiction*  
 2016-present      *Harvard Journal on Legislation*  
 2016-present      *Health Affairs*  
 2017-present      *The British Medical Journal*  
 2017-present      *The Journal of Addiction Medicine*  
 2018-present      *Drug and Alcohol Dependence*  
 2018-present      *American Journal of Public Health*  
 2018-present      *Pediatric Research*  
 2019-present      *Public Health Reports*  
 2019-present      *The Journal of Primary Prevention*  
 2021-present      *JAMA Health Forum*  
 2021-present      *BMJ Open*

**ORGANIZING ROLES IN NATIONAL MEETINGS**

4/2015      Pediatric Academic Societies Annual Meeting, San Diego, CA  
               - Moderator, Platform Presentation Session: “Neonatal Epidemiology and Health Services”  
               - Moderator, Platform Presentation Session: “Neonatal Health Services Research”  
               - Poster Facilitator, “Epidemiology and Health Science Services: Maternal Epidemiology I”  
               - Poster Facilitator, “Epidemiology and Health Science Services: Maternal Epidemiology II”  
 4/2019      Pediatric Academic Societies Annual Meeting. Baltimore, MD

- Moderator, “Opioid Prescribing, Mental Health, and Substance Use among Adolescents and Young Adults: Can Pediatric Providers Slow the Opioid Epidemic?”
- Moderator, “Neonatal Abstinence Syndrome: Eat. Sleep. Console. Repeat - and Other New Thoughts for 2019”
- 12/2019 Hot Topics in Neonatology. National Harbor, MD
- Moderator, Neonatal Abstinence Syndrome session
- 11/2019-6/2020 Theme Co-Director, Child and Family Health, AcademyHealth Annual Research Meeting
- 1/2023 Pediatric Academic Societies Annual Meeting, Washington, D.C., Abstract reviewer

### **ORGANIZATIONAL LEADERSHIP**

#### *American Medical Association, Chicago, IL*

- 2003-2004 Vice Chair, Region 4 (FL, GA, NC, SC, PR, TN, AL), Medical Student Section
- 2004-2005 National Chair, Community Service Committee, Medical Student Section
- 2005-2006 Delegate, AMA House of Delegates
  - Member of the Medical Student Section Delegation
  - Member of the Florida Delegation
- 2004-2006 National Chair, Cover the Uninsured Task Force, Medical Student Section
- 2005-2006 Member, Council on Medical Service
- 2006-2007 National Co-Chair, Health Care Access Task Force, Medical Student Section
- 2008-2009 Member, Legislative Advocacy Committee, Resident and Fellow Section
- 2010-2011 Vice Chair, Committee on Medical Education, Resident and Fellow Section

#### *Florida Medical Association, Tallahassee, FL*

- 2004-2005 Member, Council on Medical Economics

#### *Florida State University College of Medicine, Tallahassee, FL*

- 2006-2007 Member, Admissions Committee

#### *University of Michigan Health System, Ann Arbor, MI*

- 2007-2010 Member, Graduate Medical Education Committee Department of Pediatrics and Communicable Diseases

#### *American Academy of Pediatrics, Elk Grove Village, IL*

- 2008-2009 Member, Executive Committee Member, Section on Medical Students, Residents and Fellowship Trainees
- 2008-2009 District V Coordinator (MI, OH, IN, ON)
- 2010-2011 Liaison, Committee on Federal Government Affairs



- Subcommittee on Access
- 2015-2021 Member, Committee on Substance Use and Prevention
- 2016-2017 Expert consultant, Fetal Alcohol Spectrum Disorders Quality Improvement Programs
- 2020-2022 Child Welfare Policy Pediatric Learning Collaborative

*Vermont Oxford Network, Burlington, VT*

- 2012-2015 iNICQ international quality improvement collaborative on neonatal abstinence syndrome involving more than 100 neonatal intensive care units in the United States and abroad.
- Member, Scientific Steering Committee
- Faculty member
- Expert Discussant
- Co-Author of Improvement Toolkit

*March of Dimes, Tennessee Chapter, Nashville, TN*

- 2015-2017 Member, Advocacy and Government Affairs Committee

*Department of Health Policy, Vanderbilt University School of Medicine, Nashville, TN*

- 2015-2019 Member, Faculty Search Committee

*Robert Wood Johnson Clinical Scholars Alumni Association, Chapel Hill, NC*

- 2016-2017 Founding Co-President

*March of Dimes, White Plains, NY*

- 2016-2017 Inaugural member, March of Dimes National Advocacy Leaders Team

*American College of Obstetricians and Gynecologists, Washington, D.C.*

- 2018-2019 Member, Alliance for Innovation in Maternal Health, National Maternal Substance Use Expert Team

*US Department of Health and Human Services, Office of the Assistant Secretary, Washington, D.C.*

- 2018-2021 Member, HHS Initiative on NAS Advisory Board

*Vanderbilt University Medical Center, Nashville, Tennessee*

- 2020-present Vanderbilt Opioid Stewardship & Safety (VOSS)
- 2021-present Co-Leader, Hazinski Society Junior Faculty Mentorship Program, Department of Pediatrics

*National Center on Health, Behavioral Health, and Safety (NCHBHS), Office of Head Start, US Department of and Human Services, Washington, D.C.*

- 2020-present Advisory Committee Member

*Tennessee Safe Baby Courts Advisory Committee, Nashville, Tennessee.*

2020-present      Member

*Society for Pediatric Research, The Woodlands, Texas.*

2021-present      Task Force on Child Population Health Research

*Neonatal Justice Collaborative*

2022-present      Senior Faculty Lead, Policy and Advocacy

## **HONORS AND AWARDS**

2004	American Medical Association Foundation Excellence in Medicine Leadership Award
2004	Florida Medical Association Mullen Award for Outstanding Community Service
2006	Florida Medical Foundation Scholarship
2007	Florida State University College of Medicine Individual Achievement Award for "commitment to ensuring quality medical care for those most in need."
2010	Top Presentation, Research Day, University of Michigan Department of Pediatrics (Medicaid: A Program for Children? Trends From 1991-2005)
2011	Pediatric Academic Societies Young Investigator's Travel Award (Regional Variation in Lumbar Punctures for Early Onset Neonatal Sepsis)
2012	Academic Pediatric Association Research Award; Best Abstract by a Fellow – Pediatric Academic Societies (Federal Medical Assistance Percentage Policy and Medicaid/CHIP Enrollment for Children)
2013	Top 20 most influential articles published in 2012 - RWJF <i>Year in Research</i> poll (Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009)
2013	National Finalist – White House Fellows Program
2013, 2015, 2016	NIH Loan Repayment Award for Pediatric Research – National Institute on Drug Abuse
2015	Burroughs-Wellcome Fund Trainee Travel Award, Translational Science 2015 Meeting (Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome)
2016	Tennessee Chapter of the American Academy of Pediatrics Early Career Physician of the Year
2017	Nemours Child Health Services Research Award, AcademyHealth
2019	Society for Pediatric Research Young Investigator Award
2020	Mildred T. Stahlman award for Innovation in Clinical Care
2020	VUMC Biomedical Science Impact Award
2020	Gale and Ira Drukier Prize in Children's Health Research
2021	Florida State University Medical Alumni Hall of Fame
2021-2023	Chancellor Faculty Fellow, Vanderbilt University

## **TEACHING ACTIVITIES**

2013-present	Division of Neonatology – Pediatric Resident Core Curriculum Lecture Series – “Neonatal Abstinence Syndrome.”
2014-2016	Division of Neonatology Journal Club – Fellow mentor and co-leader
2014-2017	Department of Pediatrics Fellow Core Curriculum – Biostatistics

## **RESEARCH SUPERVISION**

### *Research Mentor for Undergraduates*

2016-2017	Araminta Ray Project: Exploring the Psychological and Social Underpinnings of Opioid Use Disorder and Neonatal Abstinence Syndrome in Tennessee
2020-2022	Caroline Orgel Project: Vanderbilt Child Health Poll

### *Research Mentor for Medical Students*

2014-2016	M. Katherine Charles* Project: Infant Sex and Risk of Neonatal Abstinence Syndrome
2021-present	Sunaya Krishnapura* Project: Understanding Factors Associated with Gastroschisis in Newborns

### *Research Mentor for MPH Students*

2017-2019	Tamee Livermont Project: Assessment of postpartum contraceptive use in the 2016-2017 CDC PRAMS data
2017-2019	Sadie Sommer Project: Maternal Mortality Committee Reports: A comparative review
2020-2022	Anna Wisotzkey Project: Provider Opioid Prescribing Patterns and Beliefs
2021-2022	Mia Letterie Project: Factors Associated with Parental COVID-19 Vaccination Acceptance
2021-2023	Meredith Denney Project: Mobile Flu Fighter!: Development and implementation of a mobile vaccination program to reduce pediatric influenza vaccination disparities in Nashville, Tennessee
2022-present	Nicole Andersen* Project: Exploring the Relationship Between Maternal Treatment for Opioid Use Disorder and Infant Feeding Difficulties

### *Research Mentor for Pediatric Residents*

2018-2021	Kathleen Doherty, MD* Project: Establishing a Gold Standard Definition of Neonatal
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## Abstinence Syndrome.

*Research Mentor for Pediatric Fellows*

2015-2017	Faouzi Issam Maalouf, MD* Project: Efficacy of Outpatient Treatment and Management for Neonatal Abstinence Syndrome
2015-2017	Jason Pryor, MD, MPH Project: Patterns of alcohol consumption among women with intended pregnancies
2015-2016	Nicole L. G. Villapiano, MD, MSc. Project: Rural and Urban Differences in Neonatal Abstinence Syndrome and Maternal Opioid Use, 2004 to 2013
2016-2018	Tyler N.A. Winkelman, MD, MSc Project: Neonatal Abstinence Syndrome in the US Medicaid Program
2016-2019	Lauren Sanlorenzo, MD, MST, MPH* Project: The Impact of Polysubstance Exposure on Neonatal Abstinence Syndrome Severity
2017-2020	Susan Lopata, MD* Project: Improving Systems of Care for Infants Exposed to Hepatitis C
2019-2021	Lindsay Sternad, MD* Project: Non-English Primary Language and Adverse Developmental Outcomes Among Neonates
2020-2022	Shani A. Jones, MD Project: Reaching Diverse Pediatric Populations in Primary Care
2021-present	Alex Muhar, MD Project: Improving Outcomes for Infants in the US Child Welfare System

*Research mentor for junior faculty*

2017-present	L. Dupree Hatch, MD MPH Project: Improving Respiratory Outcomes for Critically Ill Infants Current Position: Assistant Professor, Vanderbilt University Medical Center
2018-present	Ashley Leech, PhD* Project title (NIDA K01DA050740): Advancing Treatment Outcomes for Pregnant Women with Opioid Use Disorder Current Position: Assistant Professor, Vanderbilt University Medical Center, Nashville, TN
2019-present	Kristin Benninger, MD Project: Optimizing Developmental Outcomes in Early Childhood After Neonatal Opioid Withdrawal Syndrome Current Position: Assistant Professor, The Ohio State University, Columbus, OH
2019-present	Amanda Stone, PhD

- 2021-2022 Project (K23DA050801): Biopsychosocial predictors of opioid use for pediatric postsurgical pain  
Current Position: Assistant Professor, Vanderbilt University Medical Center, Nashville, TN  
Elizabeth Yen, MD, MA
- 2021-present Project (K12 BIRCWH): Understanding how prenatal opioids exert a sex-dependent impact on the developing brain  
Current Position: Assistant Professor of Pediatrics, Tufts University School of Medicine, Boston, MA  
Dominique Bulgin, PhD, RN\*
- 2022-present Project (NIDA R01 Equity Supplement - 1R01DA045729-04S1): Understanding the influence of community race characteristics with likelihood of treatment acceptance for opioid use disorder.  
Current Position: Assistant Professor, University of Tennessee, Knoxville, TN  
Margaret H. Lloyd Sieger, Ph.D  
Project: Public Policy and Health for Substance Exposed Infant-Mother Dyads (K01DA058060)  
Current Position: Assistant Professor, University of Connecticut School of Social Work, Hartford, CT

*Dissertation Committee*

- 2017-2020 Elizabeth Greener, PhD  
University of Rochester Department of Economics  
Project title: Market Shocks and Their Effect on Healthcare Utilization and Outcomes for Pregnant Women with Opioid Use Disorder  
Current Position: Washington State Department of Social and Health Services
- 2023-present Dennis Lee, BS  
Vanderbilt University Department of Health Policy  
Project title: Understanding Factors Associated with Buprenorphine Treatment
- 2023-present Jessica Kiser, BS  
Vanderbilt University Department of Economics  
Project title: Evaluating State Home Birth Regulations and Policies

\*Primary mentor

**GRANTS**

*Current Research Support:*

- Source: National Institute on Drug Abuse, R01  
R01DA056436
- Title: Improving Outcomes for Substance-Affected Families in the Child Welfare System

Role: Principal Investigator  
 Costs: \$2,568,832 (4.5 years)  
 Effort: 20% effort (8/2023-6/2028)

Source: National Institute on Drug Abuse, National Institutes of Health, P50 P50DA04635106  
 Title: Opioid Policy Tool and Information Center (OPTIC) (renewal)  
 Role: Co-Investigator (PI: Stein, RAND Corporation)  
 Costs: \$11,906,183 (5 years)  
 Effort: 5% years 1-3, 10% years 4/5 (08/2023-7/2028)

Source: National Institute on Drug Abuse, National Institutes of Health, R34 R34DA054483  
 Title: Developing Quality Measures for Opioid-Exposed Infants  
 Role: Principal Investigator (MPI, Lorch Children's Hospital of Philadelphia)  
 Costs: \$823,846 (3 years)  
 Effort: 10% effort (7/2022-6/2025)

Source: Centers for Medicare and Medicaid and Innovation/TennCare 31865-00907  
 Title: Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis  
 Role: Principal Investigator (TennCare PI: Wu)  
 Costs: \$5,380,000 (5 years)  
 Effort: 20% (1/2020-12/2024)

Source: National Institute on Child Health and Human Development, R01 R01HD097344  
 Title: Antipsychotics and the Risk of Unexpected Death in Children and Youth  
 Role: Co-Investigator (PI: Ray)  
 Costs: \$2,490,582 (5 years)  
 Effort: 10% effort (12/2019-12/2023)

Source: National Institute on Child Health and Human Development, P50HD106446-02  
 Title: Vanderbilt Integrated Center of Excellence in Maternal and Pediatric Precision Therapeutics  
 Project Title: Leveraging Data Science to Understand Outcomes for Mothers and Children Affected by Opioids  
 Role: Co-Investigator, Project Lead  
 Costs: \$4,326,820 (5 years)  
 Effort: 15% effort (9/2021-7/2026)

Source: The Boedecker Foundation  
 Title: Improving Care for Infants with Neonatal Abstinence Syndrome  
 Role: Principal Investigator

Costs: \$320,000 (5 years)  
 Effort: 5% concurrent effort (1/2019-12/2023)

Source: Agency for Healthcare Research and Quality, R01  
 R01HS029159

Title: Improving Maternal and Child Health in the Year After Birth: An  
 Early Evaluation of Postpartum Medicaid Eligibility Extensions

Role: Co-Investigator (MPI: Admon, University of Michigan, Daw, Columbia  
 University)

Costs: \$2,000,000 (5 years)  
 Effort: 5% (09/2022-08/2027)

*Completed Research Support:*

Source: National Institute on Drug Abuse, National Institutes of Health, P50  
 P50DA046351

Title: Center for Opioid Policy Research

Role: Co-Investigator (PI: Stein, RAND Corporation)

Costs: \$4,590,706 (4 years)  
 Effort: 5% (7/2018-6/2023)

Source: National Institute on Drug Abuse, National Institutes of Health, R01  
 1R01DA045729

Title: Improving Access to Treatment for Women with Opioid Use Disorder

Role: Principal Investigator

Costs: \$1,404,586 (5 years)  
 Effort: 25% (4/2018-1/2023)

Source: National Institute on Drug Abuse, National Institutes of Health, R01  
 1R01DA045729-04S1

Title: Improving Access to Treatment for Women with Opioid Use Disorder  
 (Equity Supplement)

Role: Principal Investigator

Costs: \$137,620 (1 year)  
 Effort: 5% (9/2021-1/2023)

Source: National Institute of Mental Health, R01MH120124-02S2

Title: Behavioral health Insurance coverage and outcome Risks of Co-occurring  
 conditions among delivering women with opioid use and pain for HEAL:  
 The BIRCH study

Role: Co-Investigator (PI: Zivin, University of Michigan)

Costs: \$793,970  
 Effort: 10% effort (9/2020-5/2022)

Source: The Robert Wood Johnson Foundation

Title: Robert Wood Johnson Foundation Clinical Scholars Program

Role: Fellow in health services and health policy research

Costs: \$250,000 (2 years)  
 Effort: 80% (7/2010-6/2012)

Source: National Institutes of Health and Vanderbilt Clinical Research Scholars  
 Program KL2 - 5KL2TR000446-08

Title: Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants

Role: Principal Investigator

Costs: \$450,000 (3 years)  
 Effort: 75% (7/2014-1/2015)

Source: United States Department of Health and Human Services, Health Resources and Services Administration and the State of Tennessee  
 Department of Health

Title: Prescription Opioid Prescribing Patterns as Predictors of Neonatal Abstinence Syndrome

Role: Principal Investigator

Costs: \$110,690 (1 year)  
 Effort: 10% concurrent effort (4/2014-6/2015)

Source: National Institute on Drug Abuse, National Institutes of Health  
 1K23DA038720

Title: Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants

Role: Principal Investigator

Costs: \$810,275.07 (5 years)  
 Effort: 75% (2/2015-1/2020)

Source: National Institute for Health Care Management Foundation

Title: The Prescription Opioid Epidemic: Understanding its Complications and the Effectiveness of State Policies

Role: Principal Investigator

Costs: \$57,072 (1 year)  
 Effort: Concurrent effort (1/2016-6/2017)

Source: The Memorial Foundation

Title: Improving Care for Infants with Neonatal Abstinence Syndrome

Role: Principal Investigator

Costs: \$281,734 (2 years)  
 Effort: 5% concurrent effort (9/2017-8/2019)

Source: National Institutes of Health, Office of the Director  
 U2-COD023375-02S1

Title: Project ECHO (Environmental influences on Child Health Outcomes)  
 Coordination Center, Supplement on Neonatal Opioid Withdrawal Syndrome



Role: Co-Investigator (PI: P. Brian Smith, MD, MPH, MHS, Duke University)  
 Costs: \$250,000 (1 year)  
 Effort: 10% concurrent effort (10/2017-9/2018)

Source: National Institute on Drug Abuse, National Institutes of Health, R21  
 R21DA045212

Title: An Exploratory Analysis of the Association of State Policies with  
 Neonatal Abstinence Syndrome

Role: Consultant (PI: Faherty, RAND Corporation)  
 Costs: \$255,803 (2 years)  
 Effort: Consultant (3/2018-2/2020)

Source: Robert Wood Johnson Foundation

Title: Health and Educational Outcomes of Low-Resource, Vulnerable Children  
 in Tennessee

Role: Co-Investigator (PI: Buntin, Heinrich)  
 Costs: \$1,200,000 (30 months)  
 Effort: 10% effort (11/2018-4/2021)

*Pending:*

Source: National Institute on Drug Abuse, R01

Title: Equitable Access to Treatment for Opioid Use Disorder During Pregnancy

Role: Principal Investigator

Costs: \$3,561,149 (5 years)

Effort: 20% effort

Source: Department of Health and Human Services

Title: Supporting Pregnancy Outcomes with Real-World Teams (The SUPPORT  
 Study)

Role: Co-Investigator (PI: Osmundson)

Costs: \$4,185,218.07 (4 years)

Effort: 10% effort

**PEER-REVIEWED PUBLICATIONS**

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## **REVIEWS**

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## **EDITORIALS**

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104. **Patrick SW**, Cooper WO. Promise and Peril: Dissemination of Findings from Studies of Drugs Used in Pregnancy and Their Association with Congenital Anomalies. *Birth Defects Research Part A: Clinical and Molecular Teratology*. 2015 Aug;103(8):729-32. Epub 2015 Jul 8.
105. **Patrick SW**. The Triple Aim for Neonatal Abstinence Syndrome. *The Journal of Pediatrics*. 2015 Dec;167(6):1189-91. Epub 2015 Oct 9.
106. **Patrick SW**. A Comprehensive Approach to the Opioid Epidemic. *Obstetrics & Gynecology*. 2017 Jul;130(1):7-9.
107. **Patrick SW**, Cooper WO, Davis MM. Prescribing opioids and psychotropic drugs in pregnancy. *BMJ*. 2017 Aug 2;358.
108. **Patrick SW**. Improving Public Health Systems for Substance-Affected Pregnancies. *American Journal of Public Health*. 2018. 109(1), pp. 22–23.
109. **Patrick SW**, Davis CS, Stein BD. Opioid Litigation and Maternal-Child Health: Investing in the Future. *JAMA Pediatrics*. 2020 Feb 1;174(2):119-120.
110. Faherty LJ, Hadland SE, Stein BD, **Patrick SW**. Multiplying the Impact of Opioid Settlement Funds by Investing in Primary Prevention. *Journal of Hospital Medicine*. 2020 Oct;15(10):625-627.
111. **Patrick SW**, Lorch SA. It Is Time to ACT NOW to Improve Quality for Opioid-Exposed Infants. *Pediatrics*. 2021 Jan;147(1):e2020028340.
112. Lloyd Sieger MH, Rebbe R, **Patrick SW**. The 2021 Reauthorization of CAPTA - Letting Public Health Lead. *The New England Journal of Medicine*. 2021 Oct 28;385(18):1636-1639.

## **AMERICAN ACADEMY OF PEDIATRICS PUBLICATIONS**

### *Committee on Substance Use and Prevention*

113. Levy SJ, Williams JF, Committee on Substance Use and Prevention. Substance Use Screening, Brief Intervention, and Referral to Treatment: Clinical Report. *Pediatrics*. 2016 Jun 20.
114. Committee on Substance Use and Prevention. Substance Use Screening, Brief Intervention, and Referral to Treatment: Policy Statement. *Pediatrics*. 2016 Jun 20.
115. Smith VC, Wilson CR, Committee on Substance Use and Prevention. Families Affected by Parental Substance Use. *Pediatrics*. 2016 Aug;138(2). Epub 2016 Jul 18.
116. Committee on Substance Use and Prevention. Medication-Assisted Treatment of Adolescents With Opioid Use Disorders. *Pediatrics*. 2016 Aug 22.
117. Siqueira LM. Committee on Substance Use and Prevention. Nicotine and Tobacco as Substances of Abuse in Children and Adolescents. *Pediatrics*. 2017 Jan;139(1).
118. **Patrick SW**, Schiff DM, Committee on Substance Use and Prevention. A Public Health Response to Opioid Use in Pregnancy. *Pediatrics*. 2017 Mar;139(3). Epub 2017 Feb 20.
119. Ryan SA, Ammerman SD, Committee on Substance Use and Prevention. Counseling Parents and Teens About Marijuana Use in the Era of Legalization of Marijuana. *Pediatrics*. 2017 Mar;139(3).
120. Ryan SA, Ammerman SD, O'Connor ME, Committee on Substance Use and Prevention. Marijuana Use During Pregnancy and Breastfeeding: Implications for Neonatal and Childhood Outcomes. *Pediatrics*. 2018 Sep;142(3).
121. Turchi RM, Smith VC. Committee on Substance Use and Prevention. The Role of Integrated Care in a Medical Home for Patients With a Fetal Alcohol Spectrum Disorder. *Pediatrics*. 2018 Oct;142(4).
122. Quigley J, Committee on Substance Use and Prevention. Alcohol Use by Youth. *Pediatrics*. 2019 July;144(1). Epub 2019 Jun 24.
123. Ryan SA, Kokotailo P, Committee on Substance Use and Prevention. Alcohol Use by Youth. *Pediatrics*. 2019 July;144(1). Epub 2019 Jun 24.
124. **Patrick SW**, Barfield WD, Poindexter BB, Committee on Fetus and Newborn, Committee on Substance Use and Prevention. Neonatal Opioid Withdrawal Syndrome. *Pediatrics*. 2020 Oct 26:e2020029074
125. Alinsky RH, Hadland SE, Quigley J, **Patrick SW**, Committee on Substance Use and Prevention. Recommended Terminology for Substance Use Disorders in the Care of Children, Adolescents, Young Adults, and Families. *Pediatrics*. 2022 Jun 1;149(6):e2022057529.

## **OTHER PUBLICATIONS**

126. Reddy UM, Davis JM, Ren Z, Greene MF; Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and **Childhood Outcomes Workshop Invited Speakers**. Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and Childhood Outcomes: Executive Summary of a Joint Workshop by the Eunice

Kennedy Shriver National Institute of Child Health and Human Development, American College of Obstetricians and Gynecologists, American Academy of Pediatrics, Society for Maternal-Fetal Medicine, Centers for Disease Control and Prevention, and the March of Dimes Foundation. *Obstetrics & Gynecology*. 2017 Jun 7.

### **CASE REPORTS**

127. **Patrick SW**, Kershaw DB, Attar MA. Multiple Organ Dysfunction Following Aspiration of Maternal Blood. *The Internet Journal of Pediatrics and Neonatology*. 2012 Volume 14 Number 1.

### **LETTERS**

128. Terplan M, **Patrick S**, Jansson LM. Re: Neonatal Abstinence Syndrome and High School Performance. *Pediatrics*. 2017 Jun;139(6).
129. Schiff DA, **Patrick SW**. Treatment of Opioid Use Disorder During Pregnancy and Cases of Neonatal Abstinence Syndrome. *JAMA Pediatrics*. 2017 Jul 1;171(7):707.
130. Schiff DA, **Patrick SW**, Terplan M. Contribution of Opioid-Related Overdose Deaths on Maternal Mortality. *The New England Journal of Medicine*. 2018 Feb 8;378(6):587.

### **BOOK CHAPTERS**

131. Aschner JL, **Patrick SW**, Stark AR, Lee SK. *Chapter 1. The Scope and Organization of Neonatology: North American and Global Comparisons*. Avery's Neonatology: Pathophysiology and Management of the Newborn, 7<sup>th</sup> Edition. MacDonald MG, Seshia MMK. 2016, Philadelphia, PA: Wolters Kluwer.
132. **Patrick SW**. *Chapter 12: Maternal Drug Use, Infant Exposure and Neonatal Abstinence Syndrome*. Manual of Neonatal Care, 8<sup>th</sup> Edition. Cloherty JP, et al. 2016, Philadelphia, PA: Lippincott, Williams & Wilkins.
133. Jansson LM, **Patrick SW**. (2018). Breastfeeding and the Substance-Exposed Dyad. In T.E. Wright (Ed.), *Opioid Use Disorders in Pregnancy: Management Guidelines for Improving Outcomes* (pp. 127-138). Cambridge, UK: Cambridge University Press.
134. Jansson LM, **Patrick SW**. *Chapter 7: Neonatal Abstinence Syndrome*. Current Advances in Neonatal Care, An Issue of Pediatric Clinics of North America, 1<sup>st</sup> Edition. Sood D, Brodsky D. 2019, Philadelphia, PA: Elsevier.

### **NON PEER-REVIEWED PUBLICATIONS**

#### *Invited Articles*

135. **Patrick S**. Translating Research Findings to the Press and Policy Makers. *Robert Wood Johnson Foundation Human Capital Grantee Network*. June 27, 2012.
136. **Patrick SW**. Responding to the Rise in Neonatal Abstinence Syndrome. *American Academy of Pediatrics, Section on Neonatal-Perinatal Medicine Newsletter*. August 2015: 9-10.

### *Blog*

137. Moore JE, Bateman BT, **Patrick SW**. Opioid Crisis in Medicaid: Saving Mothers & Babies. *Health Affairs Blog*. May 1, 2018. Available at: <https://www.healthaffairs.org/doi/10.1377/hblog20180426.63403/full/>

### *Lay Press Editorials*

138. **Patrick S**. The Tragedy of the Underinsured. *USA Today*. September 23, 2009.
139. **Patrick S**. Docs Are Not Props in Health Reform Debate. *Annarbor.com*. October 11, 2009.
140. **Patrick S**. Underinsured and Fighting for Life in a Broken System. *Daytona Beach News Journal*. March 21, 2010.
141. **Patrick S**. Healthcare Reform Law Benefits All Americans. *Annarbor.com*. March 28, 2010.
142. Congresswoman Clark K, **Patrick SW**. Congress should act on treatment for drug-dependent newborns. *The Boston Globe*. May 5, 2015.
143. Zickafoose J, **Patrick SW**. How the American Health Care Act would hurt children. *The Tennessean*. May 18, 2017
144. **Patrick SW**. Why the United States needs a national drug policy. *The Tennessean*. July 11, 2017.
145. **Patrick SW**. Opioid-dependent newborns in my West Virginia hometown point to a path out of drug crisis. *USA Today*. March 5, 2019.
146. **Patrick SW**. Wearing masks during pandemic shows love for our neighbors, not fear. *The Tennessean*. June 26, 2020.
147. **Patrick SW**. The lack of a national policy agenda for children during Covid-19 — and beyond — causes grave harm. *STAT*. August 31, 2020.
148. **Patrick SW**. Why parents don't know whom to trust in COVID-19 crisis and what we can do. *The Tennessean*. December 9, 2020.
149. Fritz C, **Patrick SW**. Tennessee families have fallen off the hunger cliff. Here's a solution. *The Tennessean*. March 22, 2023.
150. Gastineau KAB, Zickafoose JS, **Patrick SW**, et. al., Extreme risk laws are popular with Tennesseans and save lives from gun violence. *The Tennessean*. April 20, 2023.

### *Institutional and Government Reports*

151. Schumacher RE, **Patrick SW**. *Quality Improvement Toolkit: Controversies in Caring for Infants and Families Impacted By Neonatal Abstinence Syndrome*. Burlington, VT: Vermont Oxford Network; 2015.
152. Substance Abuse and Mental Health Services Administration (SAMHSA). (2016b). *Advancing the care of women with opioid use disorder while pregnant or parenting: Clinical indications for developing a national guide*. Rockville, MD: SAMHSA. <https://www.regulations.gov/document?D=SAMHSA-2016-0002-0001>
153. Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). *Clinical Guidance for Treating Pregnant and Parenting Women With*

*Opioid Use Disorder and Their Infants*. Rockville, MD: SAMHSA.

<https://store.samhsa.gov/shin/content/SMA18-5054c/SMA18-5054.pdf>

154. Barnett ML, Barry C, Beetham T, Carnevale JT, Feinstein E, Frank RG, de la Gueronniere G, Haffajee RL, Kennedy-Hendricks A, Humphreys K, Magan G, McLellan AT, Mitchell MM, Oster R, **Patrick SW**, Richter L, Samuels PN, Sherry TB, Stein BD, Terplan M, Vuolo L. *Evidence Based Strategies for Abatement of Harms from the Opioid Epidemic*. Boston, MA: Harvard Medical School, Blavatnik Institute for Health Care Policy. October 2020. Available at: <https://www.lac.org/resource/evidence-based-strategies-for-abatement-of-harms-from-the-o>

## **SELECTED PRESENTATIONS**

### **Intramural**

- |         |  |
|---------|--|
| 10/2011 | <b>Patrick SW</b> , Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed, platform presentation. University of Michigan Pediatric Research Symposium. Ann Arbor, Michigan.   |
| 10/2011 | <b>Patrick SW</b> , Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. University of Michigan Pediatric Research Symposium. Ann Arbor, Michigan.  |
| 07/2012 | <b>Patrick SW</b> , Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. “Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009.” Invited speaker, Grand Rounds, University of Michigan Department of Pediatrics and Communicable Diseases. Ann Arbor, Michigan. |
| 10/2012 | <b>Patrick SW</b> . “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, Child Health Evaluation and Research Unit research seminar. University of Michigan. Ann Arbor, Michigan.   |
| 10/2013 | <b>Patrick SW</b> . “Opiates and Infants: Understanding Neonatal Abstinence Syndrome.” Invited speaker, Pediatric Research Conference. Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.  |
| 11/2014 | <b>Patrick SW</b> . “Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants.” Invited Speaker, 2014 Vanderbilt Translational Research Forum, Vanderbilt University, Nashville, Tennessee.   |
| 2/2015  | <b>Patrick SW</b> . “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Grand Rounds, Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.  |
| 5/2015  | <b>Patrick SW</b> . “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Pediatric Educational Lecture Series, Monroe Carell Jr.   |

- Children's Hospital at Vanderbilt, Nursing Education Department, Nashville, Tennessee.
- 9/2015 **Patrick SW.** "Neonatal Abstinence Syndrome: Informing Public Health Systems." Invited speaker, Pediatric Research Conference. Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.
- 11/2015 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach." Invited speaker, 2015 Neonatal Medicine Annual Symposium: Advances and Controversies in Neonatal Medicine, Vanderbilt University, Nashville, Tennessee.
- 5/2016 **Patrick SW.** "Neonatal Abstinence Syndrome." Invited speaker, joint conference of Obstetrics and Anesthesia at Vanderbilt University School of Medicine, Nashville, Tennessee.
- 3/2017 **Patrick SW.** "The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker. 14th Annual Neonatal Care Update, Vanderbilt University School of Medicine, Franklin, Tennessee.
- 12/2017 **Patrick SW.** "The Effect of the Opioid Epidemic on Pregnant Women and Infants." Invited speaker, Grand Rounds. Department of Health Policy, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 12/2017 **Patrick SW.** "The Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker, Biomedical Sciences Advisory Board Meeting, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 2/2018 **Patrick SW.** "Improving Outcomes for Pregnant Women and Infants Impacted by the Opioid Epidemic." Invited speaker, Vanderbilt University Department of Pediatrics Research Conference. Nashville, Tennessee.
- 6/2018 **Patrick SW.** "Neonatal Abstinence Syndrome." Invited speaker Policy Panel, 27th Annual Joel G. Hardman Student-Invited Pharmacology Forum, Nashville, Tennessee
- 7/2018 **Patrick SW.** "Roundtable Discussion with First Lady of the United States and Assistant Secretary for Health, Department of Health and Human Services on Families Affected by the Opioid Epidemic." Organizer and participant. Vanderbilt University Medical Center, Nashville. Tennessee.
- 8/2018 Jones CK, **Patrick SW.** "The Opioid Epidemic and Neonatal Abstinence Syndrome." Invited speaker, Flexner Discovery Lecture. Vanderbilt University Medical Center, Nashville, Tennessee.
- 09/2020 **Patrick SW.** "Understanding Barriers in Access to Treatment for Pregnant Women: A Randomized Field Experiment." Invited speaker, Grand Rounds. Department of Obstetrics and

- Gynecology, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 10/2020 **Patrick SW.** “Improving Systems that Serve Families Affected by the Opioid Crisis.” Invited speaker, OB/GYN Fall Research Symposium. Department of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 03/2021 **Patrick SW.** “Looking Beyond the Bassinet: Understanding the Upstream and Downstream Consequences of the Opioid Crisis for Pregnant Women and Infants.” Pediatric Research Conference. Department of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 03/2022 **Patrick SW.** “How are Children Doing During COVID-19? Results From the Vanderbilt Child Health Poll.” Pediatric Research Conference. Department of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tennessee.
- 01/2023 **Patrick SW.** “Caring for Women & Families Affected by Substance Use Disorder.” Clinical Enterprise Group. Vanderbilt University Medical Center. Nashville, Tennessee.
- 02/2023 **Patrick SW.** “Substance Use in Pregnancy: Improving Outcomes for Families” Neonatal Grand Rounds, Vanderbilt University School of Medicine, Nashville, Tennessee.

**Extramural**  
***International***

- 9/2016 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker and panelist. Applying Regulatory Science to Neonates: Second Annual Scientific Workshop. European Medicines Agency, London, England, United Kingdom.
- 9/2023 **Patrick SW.** “Improving Outcomes for Families Affected by the Opioid Crisis.” Barry T. Smith Memorial Lecture. Queens University. Kingston, Ontario, Canada.

***National***  
***Federal Government***

- 8/2012 **Patrick SW.** “Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009.” Invited speaker, Leadership Meeting on Maternal Addiction, Opioid Exposed Infants and Neonatal Abstinence Syndrome, Office of National Drug Control Policy, The White House. Washington, D.C.
- 08/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Office of National Drug Control Policy, Executive Office of the President, Washington, D.C.
- 09/2013 Spitznas C and **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, Association of State and Territorial Health



- Officials and Notational Governors Association Webinar, Washington, D.C.
- 09/2013 **Patrick SW.** “Prescription Drug Use and Neonatal Abstinence Syndrome” Invited speaker, Interagency Working Group on Prescription Drug Abuse, Office of National Drug Control Policy, Executive Office of the President, Washington, D.C.
- 04/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, panelist. United States Senate Committee on Health, Education, Labor and Pensions Staff Prescription Drug Abuse Working Group. Washington, D.C.
- 12/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, National Institutes of Health, Interagency Coordinating Committee on Fetal Alcohol Spectrum Disorders Executive Committee Meeting. Rockville, Maryland.
- 12/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Centers for Disease Control and Prevention, Division of Reproductive Health Seminar. Atlanta, Georgia.
- 8/2016 Barfield W, Broussard CS, Yonkers KA, **Patrick SW.** “Primary Prevention and Public Health Strategies to Prevent Neonatal Abstinence Syndrome.” Invited speaker and panelist, Public Health Grand Rounds, Centers for Disease Control and Prevention, Atlanta, Georgia.  
<http://www.cdc.gov/cdcgrandrounds/archives/2016/august2016.htm>
- 8/2016 **Patrick SW.** “Public Health Grand Rounds, Beyond the Data.” Centers for Disease Control and Prevention, Atlanta, Georgia.  
<https://youtu.be/KoqZvpMJU-8>
- 11/2016 **Patrick SW.** “Making Health Care Better Series on Substance Use Disorders.” The White House, Washington, D.C.  
<https://youtu.be/oTY4DwhVwR4>
- 6/2017 **Patrick SW.** “The Triple Aim for Neonatal Abstinence Syndrome.” Institute for Medicaid Innovation. Opioid Epidemic: Crisis to Care in Medicaid. Russell Senate Office Building, Washington, D.C.
- 4/2018 **Patrick SW.** “The Story of Mothers and Infants: The Opioid Epidemic.” Society for Pediatric Research Congressional Briefing. Rayburn Office Building, Washington, D.C.
- 6/2018 **Patrick SW,** Jones HE. “Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants.” Invited speaker, Continuing Medical Education Course Sponsored by the Substance Abuse and Mental Health Administration in conjunction with the University of North Carolina. Chapel Hill, North Carolina.



- 7/2018 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, Administration for Children and Families (ACF) Early Childhood National Centers for Training and Technical Assistance, Understanding How the Opioid Crisis and Substance Use Disorders Impact Head Start Children, Families, and Staff: Creating a Path Forward. Washington, D.C.
- 8/2018 **Patrick SW.**, Malanga, C. “Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants.” Invited speaker, Continuing Medical Education Course Sponsored by the Substance Abuse and Mental Health Administration in conjunction with the University of Pennsylvania. Philadelphia, Pennsylvania.
- 10/2018 **Patrick SW.** “Current Knowledge and Gaps in Care for Infants with NAS.” Keynote Speaker, US Department of Health and Human Services National Convening on Neonatal Abstinence Syndrome at Thomas Jefferson University. Philadelphia, Pennsylvania.
- 10/2018 **Patrick SW.** “Improving Outcomes for Families Affected by the Opioid Epidemic.” Speaker and panelist, Committee on Medication-Assisted Treatment for Opioid Use Disorder. National Academy of Medicine. Washington, D.C.
- 9/2019 **Patrick SW.** “Current State of the Opioid Crisis.” Plenary speaker, Human Services Programs And The Opioid Crisis: Annual Poverty Research and Policy Forum. Sponsored by the Office of Human Services Policy, Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Washington D.C.
- 03/2021 Davis J, Grossman M, Jansson L, Jones H, **Patrick SW.**, Terplan M. US Department of Health and Human Services, HHS Second National Convening on Substance Exposure in the Mother-Infant Dyad: Strategies for Improving Long-Term Care. Speaker and panelist. Washington, D.C.
- 07/2021 **Patrick SW.** “Plenary: Best Practice Care for Infants with NAS.” Speaker. Rural Communities Opioid Response Program - Neonatal Abstinence Syndrome. US Health and Human Services, Health Resources and Services Administration, Rockville, MD
- 09/2022 **Patrick SW.** “Harnessing the Power of Collaboration to Improve Outcomes for Families Affected by Substance Use Disorder in Pregnancy.” Organizer, Speaker, Panelist. The White House Office of National Drug Control Policy, Washington, D.C.

*Invited Presentations at National Meetings*

- 6/2004 **Patrick SW.** “Covering the Uninsured.” Invited speaker. American Medical Association Annual Meeting. Atlanta, Georgia.
- 5/2014 **Patrick SW.** “Improving Care for Infants with Neonatal Abstinence Syndrome.” Invited speaker and panelist. Center for Evidence-based Policy, Medicaid Evidence-based Decisions

- Project (MED), Oregon Health and Science University, MED Governance Conference. Portland, Oregon.
- 10/2014 **Patrick SW** and Schumacher RE. “iNICQ NAS: Innovation in Action.” Moderator, panel discussion, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 4/2015 **Patrick SW**. “Improving Care to Families Affected by NAS by Understanding Structures of Care, State and Federal Drug Control Policies.” Invited Presentation and Panel Discussion. Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 5/2015 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker and panelist. Center for Evidence-based Policy, Medicaid Evidence-based Decisions Project (MED), Oregon Health and Science University, MED Governance Conference. Nashville, Tennessee.
- 10/2015 **Patrick SW**. “The Evolving Epidemic.” Invited speaker, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 10/2015 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 2/2016 **Patrick SW**. “Federal and State Efforts to Address Neonatal Abstinence Syndrome and Opioid Abuse.” Invited speaker and panelist. National Child Health Policy Conference, AcademyHealth. Washington, D.C.
- 4/2016 Campopiano M, Jones H, Coffa D, Terplan M, **Patrick SW**, Hayashi S, Perpich J. “Clinical Guidance for Treating Opioid-Dependent Pregnant and Parenting Women and Their Babies.” Invited speaker and panelist. American Society of Addiction Medicine Annual Conference. Baltimore, Maryland.
- 9/2016 **Patrick SW**. “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker and panelist. Academy of Neonatal Nursing, 1<sup>st</sup> Annual National Neonatal Nurses Conference. Nashville, Tennessee.
- 10/2016 **Patrick SW**, Whalen B, Marcellus L, Buus-Frank M. “Just Say Yes to Improvement! A Workshop Focused on Evidence-Based Practices to Improve Outcomes for Infants and Families Affected by Neonatal Abstinence Syndrome.” Invited speaker and panelist. National Association of Neonatal Nurses 32<sup>nd</sup> Annual Educational Conference. Palm Springs, California.
- 4/2017 **Patrick SW**, Campopiano M, Ford S, Schroeder M, Shepherd RA, Wexelblatt S. “Substance Use and the Mother-Baby Dyad: Risk Assessment, Risk Reduction, and Collaborative Care Models to Management.” Invited speaker and panelist. National Rx Drug Abuse and Heroin Summit. Atlanta, Georgia.

- 5/2017 **Patrick SW**, Holmes AV, Seashore C, Wexelblatt S, Grossman M, Wachman E. “Achieving the Triple Aim for Neonatal Abstinence Syndrome.” Invited speaker and panelist. Pediatric Academic Societies Annual Meeting. San Francisco, California.
- 6/2017 **Patrick SW**, Holmes AV, Seashore C, McAllister J, Grossman M. “Achieving the Triple Aim for Neonatal Abstinence Syndrome.” Invited speaker and panelist. Pediatric Hospital Medicine. Nashville, Tennessee.
- 9/2017 Holmes AV, **Patrick SW**. “Family-Centered Care for Neonatal Abstinence Syndrome.” Invited speaker and panelist. American Academy of Pediatrics National Conference and Expedition. Chicago, Illinois.
- 10/2017 **Patrick SW**, Marcellus L. “Hot Topics in Combatting the Growing Neonatal Abstinence Syndrome Epidemic.” Invited speaker, Vermont Oxford Network Annual Quality Congress. Chicago, Illinois.
- 3/2018 **Patrick SW**, Gonzalez L, Dreyzehner J. “Addressing the Opioid Crisis in Children and Families.” Invited speaker and panelist, American Academy Pediatrics Annual Leadership Forum. Schaumburg, Illinois.
- 5/2018 Campbell D, **Patrick SW**, Crowley M, Bada H. “NICU Follow-Up Club: Continuing Care Needs and Outcomes for Babies Affected by Neonatal Abstinence Syndrome.” Invited speaker and panelist, Pediatric Academics Society Annual Meeting. Toronto, Ontario, Canada.
- 9/2018 **Patrick SW**. “Improving Outcomes for Pregnant Women and Infants Impacted by the Opioid Epidemic.” Keynote presentation, Academy of Neonatal Nurses Annual Meeting. New Orleans, Louisiana.
- 3/2019 **Patrick SW**. “Improving Outcomes for Opioid-Exposed Infants.” Invited speaker, Association of Medical School Pediatric Department Chairs Annual Meeting. Savannah, Georgia.
- 3/2019 **Patrick SW**. “AAP Advocacy Lecture: Neonatal Abstinence Syndrome: New Insights into Epidemiology, Assessment, and Treatment.” Invited speaker, Society for Pediatric Anesthesiology—American Academy of Pediatrics Annual Meeting. Houston, Texas.
- 3/2019 **Patrick SW**. “Implementing Systems of Care for NAS.” Breakout session leader for 2 sessions, American Academy of Pediatrics 2019 Workshop on Neonatal-Perinatal Practice Strategies. Scottsdale, Arizona.
- 3/2019 **Patrick SW**. “Improving Outcomes for Opioid-Exposed Infants.” Invited speaker, American Academy of Pediatrics 2019 Workshop on Neonatal-Perinatal Practice Strategies. Scottsdale, Arizona.

- 4/2019 **Patrick SW**, Terplan M. “Improving Outcomes for Pregnant Women with Opioid Use Disorder and Their Infants.” Invited speaker, Rx Drug Abuse and Heroin Summit. Atlanta, Georgia.
- 10/2019 **Patrick SW**. “Newborns Exposed to Substances: Understanding Their Needs and Supporting Their Caregivers.” Invited plenary speaker, American Academy of Pediatrics National Conference and Exhibition. New Orleans, Louisiana.
- 10/2019 Holmes AV, **Patrick SW**. “Family-Centered Care for Neonatal Abstinence Syndrome.” Invited speaker and panelist, American Academy of Pediatrics National Conference and Expedition. New Orleans, Louisiana.
- 12/2019 **Patrick SW**. “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Invited speaker, Hot Topics in Neonatology. National Harbor, MD.
- 7/2020 Miller E, Plamer A, **Patrick SW**. “Maternal and Infant Health Inequities Shaped by Racism: What Can Medicaid Do?” Invited speaker and panelist. Georgetown University Health Policy Institute Center for Children and Families, Georgetown Annual Conference Plenary, Washington, D.C.
- 10/2020 **Patrick SW**, Laris, Z. “Put Families First: Best Practices and Advocacy for Addressing Prenatal Substance Exposure.” Invited speaker and panelist, American Association of Pediatrics National Conference and Exhibition. San Diego, CA.
- 10/2020 **Patrick SW**. “Effect of Pregnancy and Insurance Status of Treatment Access of Opioid Use Disorder.” Invited speaker, University of Pennsylvania, National Clinician Scholars Program. Philadelphia, Pennsylvania.
- 11/2020 **Patrick SW**. “The Role of Child Maltreatment Prevention Services in Reducing Risk: Evidence from Substance Use Approaches and Beyond.” Invited speaker, Association for Public Policy Analysis and Management Fall Research Conference. Washington D.C.
- 04/2021 **Patrick SW**. “Treatment for Opioid Use Disorder: Reducing Barriers to Engaging in Care.” Invited speaker, Rx Summit. Virtual.
- 05/2021 **Patrick SW**. “Not all NAS is NOWS: The Global Dilemma of Newborn Drug and Alcohol Exposure and Pandemics.” Pediatric Academic Societies Conference. Virtual.

*Abstracts, Platform Presentations at National Meetings*

- 5/2010 **Patrick SW**, Freed GL. “Medicaid: A Program for Children? Trends From 1991-2005.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 5/2012 **Patrick SW**, Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed,

- platform presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts.
- 6/2012 **Patrick SW**, Davis, MM, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth, CE, Espinosa C, Schumacher RE. “Accuracy of Hospital Administrative Data in Reporting Central-Line Associated Bloodstream Infections in Newborns.” Peer reviewed, platform presentation and panel discussion. AcademyHealth Annual Research Meeting. Orlando, Florida.
- 05/2014 **Patrick SW**, Dudley J, Cooper WO. “Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 4/2015 **Patrick SW**, Davis MM, Lehmann CU, Cooper WO. “Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome: United States 2009-2012.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 4/2015 **Patrick SW**, Warner KE, Pordes E, Davis MM. “Increases in Cigarette Taxes Are Associated With Decreases in Infant Mortality.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 11/2015 **Patrick SW**, Fry CE, Jones TF, Buntin MB. “Prescription Drug Monitoring Programs and Opioid-Related Overdose Deaths.” Peer Reviewed, platform presentation. Robert Wood Johnson Foundation Clinical Scholars Program Annual Meeting. Seattle, Washington.
- 5/2016 **Patrick SW**, Bauer A, Warren MD, Jones TF, Wester C. “Prevalence of Hepatitis C Among Pregnant Women.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2016 **Patrick SW**, Scott T, Reese JJ. “Patent Ductus Arteriosus Surgical Ligations in the US, 2000 to 2012: Less Frequent, Higher Risk Infants.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2017 Maalouf FI, Cooper WO, Slaughter C, Dudley J, **Patrick SW**. “Outpatient Treatment of Neonatal Abstinence Syndrome Associated with Longer Treatment and Higher Rates of Healthcare Utilization”. Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. San Francisco, California.
- 6/2017 Maalouf FI, Cooper WO, Slaughter C, Dudley J, **Patrick SW**. “Outpatient Treatment of Neonatal Abstinence Syndrome Associated with Longer Treatment and Higher Rates of Healthcare Utilization”. Peer reviewed, platform presentation. Child Health Services Research Interest Group Meeting. AcademyHealth. New Orleans, Louisiana.

- 6/2017 Sanlorenzo LA, Cooper WO, Dudley JA, Stratton S, Maalouf FI, **Patrick SW**. “Identifying Risk of Severe Neonatal Abstinence Syndrome Among Poly-substance Exposed Infants.” Peer reviewed, platform presentation. AcademyHealth. New Orleans, Louisiana.
- 5/2018 **Patrick SW**, Faherty LJ, Dick A, Scott TA, Dudley J, Stein BD. “Economic Downturns Associated with Increases in Neonatal Abstinence Syndrome.” Peer reviewed, platform presentation, American Academy of Pediatrics Presidential Plenary. Pediatric Academic Societies Annual Meeting. Toronto, Ontario. Canada.
- 5/2018 **Patrick SW**, Slaughter C, Harrell F, Hartmann K, Martin P, Dudley J, Stratton S, Cooper WO. “Development and Validation of a Clinical Prediction Tool for Neonatal Abstinence Syndrome.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Toronto, Ontario. Canada.
- 4/2019 Goyal N, Rohde JF, Chung EK, Short V, **Patrick SW**. “Well Child Care Use After Intrauterine Opioid Exposure in the First 18 Months of Life.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 4/2019 Brown C, Williams DJ, Hall M, Freundlich K, Johnson DP, Lind C, Rehm K, Frost P, Doupnik SK, Ibrahim D, **Patrick SW**, Sartori L, Howard L, Gay J. “Trends in Length of Stay and Readmissions in Children's Hospitals.” Peer reviewed, platform presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.

*Abstracts, Poster Presentations at National Meetings*

- 5/2011 **Patrick SW**, Schumacher RE, Schachinger S, Davis MM. “Regional Variation in Lumbar Punctures for Early Onset Neonatal Sepsis.” Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Denver, Colorado.
- 10/2011 **Patrick SW**, Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. American Academy of Pediatrics National Conference and Exhibition. Boston, Massachusetts.
- 11/2011 **Patrick SW**, Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and Expenditures.” Peer reviewed, poster presentation. Robert Wood Johnson Foundation Clinical Scholars Program National Meeting. Washington, D.C.
- 11/2011 **Patrick SW**, Choi H, Davis MM. “The Effect of Federal Financing on Medicaid Enrollment for Children.” Peer reviewed, poster presentation. Robert Wood Johnson Foundation Clinical Scholars Program National Meeting. Washington, D.C.

- 04/2012 **Patrick SW**, Davis, MM, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth, CE, Espinosa C, Schumacher RE. "Lack of Accuracy of Hospital Administrative Data in Reporting Central-Line Associated Bloodstream Infections in Newborns." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts.
- 04/2012 **Patrick SW**, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. "Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Boston, Massachusetts.
- 05/2013 **Patrick SW**, Benneyworth BD, Schumacher RE, Davis MM. "Variation in Hospital Type in Treatment of Neonatal Abstinence Syndrome in the United States." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 05/2013 **Patrick SW**, Kaplan H, Passarella M, Davis MM, Lorch SA. "Variation in Treatment of Neonatal Abstinence Syndrome in US Children's Hospitals." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 05/2013 **Patrick SW**, Tse A, Jin R, Gay C, Kassler W, Lee GM. "Trends in Pediatric Hospital Acquired Infections, 2007-2011." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Washington, D.C.
- 10/2013 **Patrick SW**, Kaplan H, Passarella M, Davis MM, Lorch SA. "Variation in Treatment of Neonatal Abstinence Syndrome in US Children's Hospitals." Peer reviewed, poster presentation. Vermont Oxford Network Annual Meeting. Chicago, Illinois.
- 05/2014 **Patrick SW**, Burke J, Cooper WO. "Risk of Hospital Readmission Among New York Infants With Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 05/2014 Buus-Frank ME, Ferrelli K, Morrow K, Edwards E, **Patrick SW**, Schumacher RE, Horbar JD, Soll RF. "VON Day Quality Audit / Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Vancouver, British Columbia.
- 4/2015 **Patrick SW**, Dudley J, Martin PR, Harrell FE, Warren MD, Hartmann KE, Ely EW, Grijalva GC, Cooper WO. "Higher Dose and Duration of Maternal Prescription Opioid Use Increases Risk of Neonatal Abstinence Syndrome." Peer reviewed, poster presentation. Translational Science 2015. Washington, D.C.
- 4/2015 **Patrick SW**, Schumacher RE, Horbar J, Buus-Frank M, Edwards E, Morrow K, Ferrelli K, Soll R. "Improving Care for Infants with Neonatal Abstinence Syndrome: Results of a Large Multicenter

- Collaborative.” Peer reviewed, poster symposium. Pediatric Academic Societies Annual Meeting. San Diego, California.
- 6/2015 **Patrick SW**, Fry CE, Jones TF, Buntin MB. “Prescription Drug Monitoring Programs and Opioid-Related Overdose Deaths.” Peer reviewed, poster presentation. AcademyHealth Annual Research Meeting. Minneapolis, Minnesota.
- 5/2016 Charles MK, Cooper WO, Jansson LJ, Dudley J, Slaughter J, **Patrick SW**. Infant Sex and Risk of Neonatal Abstinence Syndrome. Peer reviewed, poster presentation. Pediatric Academic Societies Annual Meeting. Baltimore, Maryland.
- 5/2017 Hatch LD, Scott TA, Walsh WF, Blakely ML, **Patrick SW**. “National and Regional Trends in Gastrostomy and Fundoplication in Very Low Birth Weight Infants in the US: 2000-2012.” Peer reviewed, poster symposium. Pediatric Academic Societies. San Francisco, California.
- 5/2017 Sanlorenzo LA, Cooper WO, Dudley JA, Stratton S, Maalouf FI, **Patrick SW**. “Identifying Risk of Severe Neonatal Abstinence Syndrome Among Poly-substance Exposed Infants.” Peer reviewed, poster symposium. Pediatric Academic Societies. San Francisco, California.
- 5/2017 Maalouf FI, Cooper WO, Stratton S, Dudley J, Ko J, Mukherjee A, **Patrick SW**. “Validation and Development of Algorithms to Identify Neonatal Abstinence Syndrome in Public Health Systems.” Peer reviewed, poster symposium. Pediatric Academic Societies. San Francisco, California.
- 4/2019 Hatch LD, Scott TA, Slaughter J, Xu M, Smith A, Stark AR, **Patrick SW**, Ely EW. “Unplanned Extubations in Preterm Infants Prolong Mechanical Ventilation and Increase Hospital Costs.” Peer reviewed, poster symposium. Pediatric Academic Societies. Baltimore, Maryland.
- 4/2019 Lopata SM, Wester C, Cooper WO, Carlucci JG, Espinosa C, Dudley JA, McNeer E, **Patrick SW**. “Disparities in Testing of Hepatitis C Exposed Infants.” Peer reviewed, poster symposium. Pediatric Academic Societies. Baltimore, Maryland.

*Academic Institutions*

- 10/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. Cincinnati Children’s Hospital Medical Center. Cincinnati, Ohio.
- 11/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. Vanderbilt University (prior to faculty appointment). Nashville, Tennessee.
- 12/2012 **Patrick SW**. “Policy to Practice: Health Services Research in Neonatology.” Invited speaker, research seminar. University of Florida. Gainesville, Florida.



- 04/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Grand Rounds. Beaumont Children’s Hospital. Royal Oak, Michigan.
- 03/2014 **Patrick SW.** “NAS: Epidemiology, Economics and Management.” Invited speaker, NeoFest 2014. Cincinnati Children’s Hospital Medical Center. Cincinnati, Ohio.
- 12/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Dartmouth University Geisel School of Medicine, Department of Pediatrics, Grand Rounds. Hanover, New Hampshire.
- 12/2015 **Patrick SW.** “How to Have an Academic Career with Impact.” Invited speaker. Dartmouth University Geisel School of Medicine, Department of Pediatrics, Resident Noon Conference. Hanover, New Hampshire.
- 3/2016 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Neonatal Grand Rounds Speaker, Tufts University. Boston, Massachusetts.
- 5/2016 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Marie McCormick Lectureship in Neonatal Health Services Research and Epidemiology, Harvard Medical School, Beth Israel Deaconess Medical Center, Department of Neonatology. Boston, Massachusetts.
- 5/2016 **Patrick SW.** “Improving Care for Neonatal Abstinence Syndrome.” Newborn Medicine Research Seminar Series, Boston Children’s Hospital, Division of Neonatology. Boston, Massachusetts.
- 5/2016 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, PedsPLACE. University of Arkansas for Medical Sciences. Little Rock, Arkansas.
- 10/2016 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker. Neonatal Abstinence Syndrome Workgroup, East Tennessee State University, Department of Pediatrics. Johnson City, Tennessee.
- 2/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker. University of Michigan, Department of Pediatrics, Grand Rounds. Ann Arbor, Michigan.
- 4/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, The Wanda L. Jones-Phillips Memorial Lecture, Neonatology 2017, Emory University Department of Pediatrics. Atlanta, Georgia.
- 4/2017 **Patrick SW.** “Long-Term Outcomes for Neonatal Abstinence Syndrome: What We Know and What We Don’t.” Invited speaker, Neonatology 2017, Emory University Department of Pediatrics. Atlanta, Georgia.

- 5/2017 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, Children’s National Medical Center Grand Rounds. Washington, D.C.
- 10/2017 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, The Children’s Hospital of Philadelphia Neonatology Research Seminar, The Children’s Hospital of Philadelphia. Philadelphia, Pennsylvania.
- 5/2017 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker, University of Louisville, Department of Pediatrics Grand Rounds. Louisville, Kentucky.
- 6/2018 **Patrick SW,** Warren M, Remley K, Bharel M. “Understanding & Responding to the Lifelong Effects of Opioid Exposure for Infants, Children & Families.” Invited speaker and panelist, Association of States and Territorial Officials in association with The Forum at the Harvard T.H. Chan School of Public Health. Boston, Massachusetts.  
<https://theforum.sph.harvard.edu/state-health-leadership-understanding-responding-to-the-lifelong-effects-of-opioid-exposure-for-infants-children-families/>
- 4/2019 **Patrick SW.** “Improving Outcomes for Opioid-Exposed Infants.” Invited speaker, Infants’ Aid Endowment Fund Lecture Northwestern University Feinberg School of Medicine, Department of Pediatrics. Chicago, Illinois.
- 5/2019 **Patrick SW.** “Optimizing Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Invited speaker, Richard A. Ehrenkranz Symposium: Nutrition, Neurodevelopment, and Outcomes. Yale University Department of Pediatrics. New Haven, Connecticut.
- 9/2019 **Patrick SW.** “The Opioid Crisis and Maternal Child Health: Research to Inform Policy and Practice.” Invited speaker, Children’s Hospital of Los Angeles/University of Southern California, Division of Neonatology Grand Rounds. Los Angeles, California.
- 12/2019 **Patrick SW.** “The Science and Politics of Neonatal Abstinence Syndrome.” Invited speaker, John Hopkins Bloomberg School of Public Health. Baltimore, Maryland.
- 2/2020 **Patrick SW.** “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Annie Terry Grand Rounds Speaker, Oregon Health and Science University. Portland, Oregon.
- 10/2020 **Patrick SW.** “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis: Generating Evidence to Inform Public Health Policy.” Invited speaker, Sixth Annual Gale and Ira Drukier Lecture in Children’s Health, Weill Cornell Medicine. New York, New York.

- 11/2020 **Patrick SW.** “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Invited Speaker, Pediatric Grand Rounds, University of Michigan. Ann Arbor, Michigan.
- 9/2021 **Patrick SW.** “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Invited Speaker, Pediatric Grand Rounds, East Tennessee State University, Johnson City, Tennessee.
- 4/2022 **Patrick SW.** “Improving Outcomes for Families Affected by the Opioid Crisis.” Distinguished Scholar Seminar, The Dartmouth Institute, Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire.
- 9/2022 **Patrick SW.** “Improving Systems that Serve Families Affected by the Opioid Crisis Context & Guidance from AAP.” Speaker, Florida State University College of Medicine Reunion. Orlando, Florida.
- 11/2022 **Patrick SW.** “Addressing Opioid Use Disorder Among Pregnant Women (and my path along the way).” Speaker, Florida State University Chapter of the American Medical Association Advocacy Week. Florida State University College of Medicine. Tallahassee, Florida (virtual).
- 2/2023 **Patrick SW.** “Substance Use in Pregnancy: Improving Outcomes for Families.” Grand Rounds, West Virginia University Charleston Campus, Department of Pediatrics, Charleston, West Virginia.

*State Perinatal Quality Improvement Meetings*

- 02/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Tennessee Initiative for Perinatal Quality Care Annual Meeting. Franklin, Tennessee.
- 01/2014 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker and panelist, Perinatal Quality Collaborative of North Carolina Annual Meeting. Durham, North Carolina.
- 12/2015 **Patrick SW.** “Improving the Care of NAS from the Bedside to Capitol Hill.” Invited speaker, Caring for Newborns Born to Women with Perinatal Opioid Exposure, Neonatal Abstinence Syndrome Project of the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC) and the Northern New England Perinatal Quality Improvement Network (NNEPQIN) Fall Meeting. Westborough, Massachusetts.
- 12/2015 **Patrick SW.**, Tilley P, Record K. “Advocating for Policy Change Locally, Regionally, and Statewide: What Each of Us Can Do.” Panelist. Caring for Newborns Born to Women with Perinatal Opioid Exposure, Neonatal Abstinence Syndrome Project of the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC) and the Northern New England Perinatal Quality

- Improvement Network (NNEPQIN) Fall Meeting. Westborough, Massachusetts.
- 1/2016 **Patrick SW.** “Improving the Care of NAS from the Bedside to the Capitol.” Invited speaker, Perinatal Quality Collaborative of North Carolina. Raleigh, North Carolina.
- 3/2016 **Patrick SW.** “Improving the Care of NAS from the Bedside to the Capitol.” Invited speaker, Tennessee Initiative to Improve Perinatal Quality Care. Franklin, Tennessee.
- 3/2017 **Patrick SW.** “Targets to Reduce Morbidity.” Invited speaker and panelist, Tennessee Initiative to Improve Perinatal Quality Care. Franklin, Tennessee.
- 9/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker. Oklahoma Perinatal Quality Improvement Collaborative Summit. Oklahoma City, Oklahoma.
- 3/2019 Borders A, **Patrick SW.**, Devoe M, Young, J. “Opioid Exposed Newborns (OEN)/Opioid Use Disorder (OUD) Panel Discussion.” Invited panelist, Tennessee Initiative for Perinatal Quality Care Annual Meeting. Franklin, Tennessee.
- 03/2021 **Patrick SW.** “Updates In Perinatal Opioid Exposure.” Invited speaker, TIPCO Annual Meeting. Vanderbilt University School of Medicine, Nashville, TN.
- 04/2021 **Patrick SW.** “Improving Public Health Systems for Pregnant Women and Infants Affected by the Opioid Crisis.” Colorado Hospitals Substance Exposed Newborn Quality Improvement Collaborative (CHoSEN QIC). Department of Pediatrics, University of Colorado School of Medicine, Aurora, Colorado.
- Webinars*
- 01/2013 **Patrick SW.** “Opiates and Infants: Neonatal Abstinence Syndrome, Epidemiology and Scope.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 05/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Presentation and Typical Course.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 05/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited presentation, webinar. Association for Community Affiliated Plans. Washington, D.C.
- 2/2015 **Patrick SW.** “Neonatal Abstinence Syndrome: Continued Increase and Geographic Variation.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 6/2015 **Patrick SW.** “The National Landscape – Trends Toward Legalization of Marijuana.” Invited speaker and panelist, Vermont Oxford Network Webinar. Burlington, Vermont.
- 9/2016 **Patrick SW.**, Write T, Mittal LP, Hersey ML. “The Emerging Crisis of Opioid Addiction – Implications for Home Visiting.”

- Invited speaker and panelist, U.S. Department of Health and Human Services, Health Resources and Services Administration, HV-Impact. Rockville, Maryland.
- 8/2017 **Patrick SW.** “Understanding Neonatal Abstinence Syndrome for the General Pediatrician.” Invited speaker, The American Academy of Pediatrics. Elk Grove Village, Illinois.
- 12/2017 Page K, **Patrick SW.**, Sanders K, Schillie S. “Hepatitis C Virus Among Pregnant Women.” Invited speaker, National Viral Hepatitis Roundtable. Washington, D.C.
- 3/2019 Kasehagen K, **Patrick SW.**, John C. “NAS Policy and Practice.” Invited speaker, OMNI Learning Community ASTHOconnects #3
- 8/2019 **Patrick SW.** “Improving Outcomes for Families Affected by Opioids.” Invited speaker, Office of Head Start. National Webinars on Opioid Misuse and Substance Use Disorders.
- 1/2021 **Patrick SW.** “Improving Systems that Serve Families Affected by the Opioid Crisis: Context and Guidance from the AAP.” Invited speaker, National Center on Substance Abuse and Child Welfare.
- 1/2021 **Patrick SW.**, Christian CW. “CAPTA and legislative testimony: How to be an effective advocate.” Invited speaker, Child Welfare Policy Pediatric Learning Collaborative, American Academy of Pediatrics.
- 04/2021 **Patrick SW.** “Health Equity and NAS.” Invited speaker, QI Grand Rounds – Neonatal Abstinence Syndrome and Health Equity, Vermont Oxford Network.
- 05/2021 **Patrick SW.** “Prenatal Neuroscience.” Invited speaker, Early Head Start Rising Summer Series. Virtual.
- 12/2022 **Patrick SW.** “Newborns Exposed to Substances: Understanding Their Needs and Supporting Their Caregivers.” Keynote Speaker. Policy Academy, The National Center on Substance Abuse and Child Welfare. Virtual

*State Government and Local Communities*

- 8/2012 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited speaker, Iosco County Department of Human Services. Conference entitled, “Substance Abuse and Families.” Hale, Michigan.
- 11/2012 **Patrick SW.** “Opiates and Infants: Neonatal Abstinence Syndrome.” Invited speaker, 12<sup>th</sup> Annual Multidisciplinary Child Abuse Conference Prosecuting Attorney’s Association of Michigan. Bay City, Michigan.
- 04/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, 21<sup>st</sup> Annual Conference of the Southeastern Michigan Association of Neonatal Nurses. Frankenmuth, Michigan.
- 09/2013 **Patrick SW.** “Neonatal Abstinence Syndrome: Scope and Evolving Issues.” Invited speaker, Tennessee Public Health Association Annual Meeting. Franklin, Tennessee.

- 03/2014 **Patrick SW.** “Neonatal Abstinence Syndrome.” Invited Speaker, 2014 Early Intervention Conference, Building Best Practice: Partnering, Coaching, Leading. Tennessee Early Intervention Services. Murfreesboro, Tennessee.
- 11/2014 **Patrick SW.** “Neonatal Abstinence Syndrome: Current Issues in Tennessee and Beyond.” Invited speaker, Learning for Babies - A Conference to Benefit the March of Dimes. Franklin, Tennessee.
- 9/2015 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome - A Public Health Approach.” Invited Speaker, Tennessee Annual Pediatric Conference, Tennessee Chapter of the American Academy of Pediatrics. Franklin, Tennessee.
- 12/2015 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. New Hampshire Governor’s Task Force on Perinatal Substance Exposure. Concord, New Hampshire.
- 1/2016 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Neonatal Abstinence Syndrome Community Collaborative. Nashville, Tennessee.
- 7/2016 **Patrick SW.** “Neonatal Abstinence Syndrome - A Public Health Approach.” Invited speaker. Tennessee Hospital Association Annual Meeting. Miramar Beach, Florida
- 2/2017 **Patrick SW.** “The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome.” Keynote speaker. Orange County Drug Abuse Summit, Winnie Palmer Hospital for Women & Babies. Orlando, Florida.
- 11/2017 **Patrick SW.** “The Opioid Epidemic and Neonatal Abstinence Syndrome.” Invited speaker. Mid-Cumberland Council on Children and Youth. Franklin, Tennessee.
- 08/2021 **Patrick SW.** Young J. “Improving Outcomes for Pregnant Women and Infants Affected by the Opioid Crisis.” Panelist, Tennessee Association of Alcohol, Drug, and other Addition Services. Virtual.
- 09/2021 **Patrick SW.** “Supporting Newborns Experiencing Neonatal Opioid Withdrawal Syndrome and Women Living with Opioid Use Disorder.” Invited Speaker, Annual Maine Maternal Child Health and Substance Exposed Infant Conference. Virtual.
- 02/2023 **Patrick SW.** “Caring for Pregnant Women & Infants Affected by Substance Use Disorder.” Tennessee Second Look Commission, Tennessee Commission on Children and Youth. Nashville, Tennessee