

Stephen W. Patrick, MD, MPH, MS, FAAP
Director, Vanderbilt Center for Child Health Policy
Executive Director, Firefly

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EDUCATION

8/1998-5/2002 BS, Microbiology and Cell Science, *Highest Honors*
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

- 7/2019-present Associate Professor of Pediatrics and Health Policy with tenure
Division of Neonatology
Vanderbilt Center for Health Services Research
Vanderbilt Center for Addiction Research
Vanderbilt Kennedy Center
Vanderbilt University
Nashville, TN
- 7/2013-6/2019 Assistant Professor of Pediatrics and Health Policy
Division of Neonatology
Vanderbilt Center for Health Services Research
Vanderbilt Center for Addiction Research
Vanderbilt University
Nashville, TN
- 4/2018-present Director, Vanderbilt Center for Child Health Policy
(www.childpolicy.org)
- 24 affiliated members, 8 staff with areas focused on the opioid crisis, child welfare, adolescent mental health, and health equity.
 - Lead rapid assessments of parents through [polling](#) to understand challenges faced by parents including vaccine hesitancy, food insecurity, and mental health, which have been cited by the [Surgeon General](#), in [local](#) and [national](#) media.
- 5/2018-present Adjunct Physician Policy Researcher
RAND Corporation
Santa Monica, CA
- 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.
- 1/2020-present Executive Director, Firefly
(www.fireflytn.org)
- 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 170 women treated in first year 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

8/2016-11/2016

Member, Technical Advisory Group, Neonatal Episodes of Care, Health Care Financing and Administration, State of Tennessee, Nashville, Tennessee

- Provided expertise in maternal-child health in the crafting of risk-adjusted models focused on incentivizing high-value care for critically ill infants.

- 9/2018-present Guest Researcher, Centers for Disease Control and Prevention, Division of Reproductive Health, Atlanta, Georgia.
- Provide content expertise on opioid use disorder in pregnancy, including mentorship to staff in the drafting of manuscripts.
- 10/2021-9/2022 Senior Policy Advisor, Office of National Drug Control Policy, Executive Office of the President, The White House, Washington, D.C.
- 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.
 - Led the drafting of the Administration’s action plan “[Substance Use Disorder in Pregnancy: Improving Outcomes for Families](#),” and the development of public-facing educational materials focused on medications for opioid use disorder in [pregnancy](#) and [stigma](#).
 - Led a process, along with a federal contractor, to draft state model legislation focused on state implementation of family care plans for families affected by substance use disorder.

Reviews

2014 Expert Reviewer, Substance Abuse and Mental Health Services Administration and National Center on Substance Abuse and Child Welfare, *Medication-Assisted Treatment for Pregnant Women with Opioid Dependence: Practice and Policy Considerations for Health Care, Addiction Treatment Providers, Child Welfare and Courts*

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/

PROFESSIONAL ASSOCIATIONS

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

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	<i>JAMA Pediatrics</i>
2016-present	<i>JAMA Psychiatry</i>
2016-present	<i>Addiction</i>
2016-present	<i>Harvard Journal on Legislation</i>
2016-present	<i>Health Affairs</i>
2017-present	<i>The British Medical Journal</i>
2017-present	<i>The Journal of Addiction Medicine</i>
2018-present	<i>Drug and Alcohol Dependence</i>
2018-present	<i>American Journal of Public Health</i>
2018-present	<i>Pediatric Research</i>
2019-present	<i>Public Health Reports</i>
2019-present	<i>The Journal of Primary Prevention</i>
2021-present	<i>JAMA Health Forum</i>
2021-present	<i>BMJ Open</i>

SCIENTIFIC REVIEWER FOR STUDY SECTIONS

2015	National Institutes of Health. National Institute on Drug Abuse, Behavioral Science Track Award for Rapid Transition Review, Study Section, ad hoc reviewer
2018	National Institutes of Health. Center for Scientific Review Special Emphasis Panel, Accelerating the Pace of Drug Abuse Research Using Existing Data, ad hoc reviewer
2018	Patient Centered Outcomes Research Institute. Medication Assisted Treatment Merit Review, ad hoc reviewer.
2020	National Institutes of Health, National Institute on Drug Abuse, Loan Repayment Payment Program.
2021	National Institutes of Health. Organization and Delivery of Health Services, ad hoc reviewer.
2021	American Academy of Pediatrics, Section on Perinatal Pediatrics, Marshall Klaus Health Services Research Award, reviewer.

NATIONAL INSTITUTES OF HEALTH WORKGROUPS

4/2016	National Institute on Child Health and Human Development of the National Institutes of Health. “Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and Childhood Outcomes Workshop” Invited speaker and participant. Rockville, Maryland.
10/2018	National Institute on Child Health and Human Development Strategic Planning. Participant. Washington, D.C.

ORGANIZING ROLES IN NATIONAL MEETINGS

4/2015	Pediatric Academic Societies Annual Meeting, San Diego, CA
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- 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

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-present Member, Committee on Substance Use and Prevention
- 2016-2017 Expert consultant, Fetal Alcohol Spectrum Disorders Quality Improvement Programs
- 2020-present 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)

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

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 *Year in Research* 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-present Anna Wisotzkey
Project: Provider Opioid Prescribing Patterns and Beliefs
2021-present Mia Letterie
Project: Factors Associated With Parental COVID-19 Vaccination
Acceptance
2021-present Meredith Denney
Project: To be determined

Research Mentor for Pediatric Residents

2018-2021 Kathleen Doherty, MD*
Project: Establishing a Gold Standard Definition of Neonatal
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
2022-present	Erin Von Klein, MD Project: TBD

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
Current Position: Assistant Professor, University of Connecticut School of Social Work, Hartford, CT

Dissertation Committee

- 2017-2020 Elizabeth Greener, PhD
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

*Primary mentor

GRANTS

Current Research Support:

- 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
- 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: 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 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 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: \$280,000 (4 years)
Effort: 5% concurrent effort (1/2019-12/2022)

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 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: Improving Outcomes for Substance-Affected Families in the Child Welfare System
Role: Principal Investigator
Costs: \$2,773,750 (4.5 years)

Effort: 20% effort

Source: National Institute on Child Health and Human Development, U54
Title: Vanderbilt University Medical Center Maternal Health Research Center of Excellence
Role: MPI
Costs: \$14,952,818 (5 years)
Effort: 30% effort

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

PEER-REVIEWED PUBLICATIONS

1. Odetola FO, Mann C, Hansen KW, **Patrick S**, Bratton SL. Source of Admission and Outcomes for Critically Injured Children in the Mountain States. *Archives of Pediatrics and Adolescent Medicine*. 2010;164(3):277-282
2. **Patrick SW**, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. Neonatal Abstinence Syndrome and Associated Healthcare Expenditures – United States, 2000-2009. *JAMA*. 2012 May 9;307(18):1934-40. Epub 2012 Apr 30.
3. **Patrick SW**, Choi H, Davis MM. Increase In Federal Match Associated With Significant Gains In Coverage For Children Through Medicaid And CHIP. *Health Affairs*. 2012 Aug;31(8):1796-802.
4. **Patrick SW**, Schumacher RE, Davis MM. Variation in Lumbar Punctures for Early Onset Neonatal Sepsis: A Nationally Representative Serial Cross-Sectional Analysis, 2003–2009. *BMC Pediatrics*. 2012, 12:134.
5. **Patrick SW**, Freed GL. Intergenerational Enrollment and Expenditure Changes in Medicaid: Trends from 1991 to 2005. *BMC Health Services Research*. 2012, 12:327.
6. **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. *Pediatrics*. 2013-03;131 Supplement 1:S75-80.
7. Sun GH, Auger KA, Aliu O, **Patrick SW**, DeMonner S, Davis MM. Post-Tonsillectomy Hemorrhage in Children with von Willebrand Disease and Hemophilia. *JAMA Otolaryngology - Head & Neck Surgery*. 2013;139(3):245-249.
8. Sun GH, Auger KA, Aliu O, **Patrick SW**, Demonner S, Davis MM. Variation in Inpatient Tonsillectomy Costs Within and Between US Hospitals Attributable to Postoperative Complications. *Med Care*. 2013 Dec;51(12):1048-54.
9. Haggins A, **Patrick SW**, Demonner S, Davis MM. When Coverage Expands: CHIP as a Natural Experiment in Utilization of Healthcare Services. *Academic Emergency Medicine*. 2013 Oct;20(10):1026-32.

10. Harris MJ, Gay JC, Neef JM, **Patrick SW**, Sedman, A. Comparison of Administrative Data versus Infection Control Data in Identifying Central Line-Associated Blood Stream Infections in Children's Hospitals. *Hospital Pediatrics*. 2013; 3:307-313.
11. Auger KA, **Patrick SW**, Davis MM. Infant Hospitalizations for Pertussis Before and After Tdap Recommendations For Adolescents. *Pediatrics*, 2013 Nov;132(5):e1149-55. Epub 2013 Oct 21.
12. **Patrick SW**, Kaplan HC, Passarella M, Davis MM, Lorch SA. Variation in Treatment of Neonatal Abstinence Syndrome Among US Children's Hospitals, 2004-2011. *Journal of Perinatology* 2014 Nov;34(11):867-72. Epub 2014 Jun 12.
13. **Patrick SW**, Kawai AT, Kleinman K, Jin R, Vaz L, Gay C, Kassler W, Goldmann D, Lee GM. Significant Decreases in Healthcare-Associated Infections Among Hospitalized Children in the US from 2007-2012. *Pediatrics*. 2014 Oct;134(4):705-12. Epub 2014 Sep 8.
14. Warren MD, Miller AM, Traylor J, Bauer A, **Patrick SW**. Implementation of a Statewide Surveillance System for Neonatal Abstinence Syndrome — Tennessee, 2013. *MMWR Morbidity and Mortality Weekly Report*. 2015 Feb 13;64(5):125-8.
15. **Patrick SW**, Dudley J, Martin PR, Harrell FE, Warren MD, Hartmann KE, Ely EW, Grijalva GC, Cooper WO. Prescription Opioid Epidemic and Infant Outcomes. *Pediatrics*. 2015 May;135(5):842-850. Epub 2015 April 13.
16. Tolia V, **Patrick SW**, Bennett M, Sousa J, Smith PB, Clark R, Spitzer AR. Increasing Neonatal Abstinence Syndrome in US Neonatal Intensive Care Units. *The New England Journal of Medicine*. 2015 May 28;372(22):2118-26 Epub 2015 Apr 26.
17. **Patrick SW**, Davis MM, Lehmann CU, Cooper WO. Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome: United States 2009-2012. *Journal of Perinatology*. 2015 Aug;35(8):650-5. Epub 2015 Apr 30.
18. **Patrick SW**, Burke JF, Biel TJ, Auger KA, Goyal N, Cooper WO. Risk of Hospital Readmission Among Infants with Neonatal Abstinence Syndrome. *Hospital Pediatrics*. 2015 Oct;5(10):513-9.
19. **Patrick SW**, Warner KE, Pordes E, Davis MM. Cigarette Tax Increase and Infant Mortality. *Pediatrics*. 2016 Jan;137(1):1-8. Epub 2015 Dec 1.
20. **Patrick SW**, Schumacher RE, Horbar JD, Buss-Frank ME, Morrow KA, Ferrelli KR, Picarillo AP, Gupta M, Soll RF. Improving Care for Infants with Neonatal Abstinence Syndrome. *Pediatrics*. 2016 May;137(5). Epub 2016 Apr 15.
21. **Patrick SW**, Fry CE, Jones TF, Buntin MB. Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates. *Health Affairs*. 2016 Jul 1;35(7):1324-32. Epub 2016 Jun 22.
22. Ko JY, **Patrick SW**, Tong VT, Patel R, Lind JN, Barfield WD. Incidence of Neonatal Abstinence Syndrome in 28 States, 1999-2013. *MMWR Morbidity and Mortality Weekly Report* 2016;65:799–802.
23. Villapiano NLC, Winkelman TNA, Kozhimannil KB, Davis MM, **Patrick SW**. Rural and Urban Differences in Neonatal Abstinence Syndrome and Maternal Opioid Use, 2004 to 2013. *JAMA Pediatrics*. 2017 Feb 1;171(2):194-196.
24. Ko JY, Wolicki S, Barfield WD, **Patrick SW**, Broussard CS, Yonkers KA, Naimon R, Iskander J. CDC Grand Rounds: Public Health Strategies to Prevent

- Neonatal Abstinence Syndrome. *MMWR Morbidity and Mortality Weekly Report*. 2017 Mar 10;66(9):242-245.
25. Pryor JR, **Patrick SW**, Sundermann AC, Wu P, Hartmann KE. Pregnancy Intention and Maternal Alcohol Consumption. *Obstetrics & Gynecology*. 2017 Apr;129(4):727-733.
 26. Kozhimannil KB, Graves AJ, Levy R, **Patrick SW**. Nonmedical Use of Prescription Opioids among Pregnant U.S. Women. *Women's Health Issues*. May-Jun 2017;27(3):308-315.
 27. Charles MK, Cooper WO, Jansson LJ, Dudley J, Slaughter J, **Patrick SW**. Male Sex Associated with Increased Risk of Neonatal Abstinence Syndrome. *Hospital Pediatrics*. 2017 Jun;7(6):328-334.
 28. **Patrick SW**, Bauer A, Warren MD, Jones TF, Wester C. Increasing Prevalence of Hepatitis C Among Women with Recent Live Births— United States and Tennessee, 2009–2014. *MMWR Morbidity and Mortality Weekly Report*. 2017 May 12;66(18):470-473.
 29. Winkelman TNA, Villapiano N, Kozhimannil KB, Davis MM, **Patrick SW**. Incidence and Costs of Neonatal Abstinence Syndrome among Infants with Medicaid: 2004–2014. *Pediatrics*. 2018 Apr;141(4).
 30. Maalouf FI, Cooper WO, Slaughter JC, Dudley J, **Patrick SW**. Outpatient Pharmacotherapy for Neonatal Abstinence Syndrome. *The Journal of Pediatrics*. 2018 Aug;199:151-157.e1.
 31. Hatch LD, Scott TA, Walsh WF, Goldin AB, Blakely ML, **Patrick SW**. National and regional trends in gastrostomy in very low birth weight infants in the USA: 2000-2012. *The Journal of Perinatology*. 2018 Sep;38(9):1270-1276.
 32. **Patrick SW**, Buntin MB, Martin PR, Scott TA, Dupont W, Richards M, Cooper WO. Barriers to Accessing Treatment for Pregnant Women with Opioid Use Disorder in Appalachian States. *Substance Abuse*. 2018 Jun 27:1-18.
 33. Reese J, Scott TA, **Patrick SW**. Changing Patterns of Patent Ductus Arteriosus Surgical Ligation in the United States. *Seminars in Perinatology*. 2018 Jun;42(4):253-261.
 34. Whitmore C, White MN, Buntin MB, Fry CE, Calamari K, **Patrick SW**. State Laws and Policies to Reduce Opioid-Related Harm: A Qualitative Assessment of PDMPs and Naloxone Programs in Ten U.S. States. *Preventive Medicine Reports*. 2018 Dec 30;13:249-255.
 35. Ray WS, Stein CM, Murray KT, **Patrick SW**, Fuchs C, Daugherty J, Hall K, Cooper WO. Antipsychotics and Increased Risk of Unexpected Death in Children and Youth. *JAMA Psychiatry*. 2019 Feb 1;76(2):162-171.
 36. Maalouf FI, Cooper WO, Stratton SM, Dudley J, Ko J, Banerji A, **Patrick SW**. Positive Predictive Value of Administrative Data for Neonatal Abstinence Syndrome. *Pediatrics*. 2019 Jan;143(1):e20174183.
 37. Colby JM, Adams B, Morad A, Presley L, **Patrick SW**. Umbilical cord tissue and meconium may not be equivalent for confirming in utero substance exposure. *Journal of Pediatrics*. 2019 Feb;205:277-280.
 38. **Patrick SW**, Faherty LJ, Dick A, Scott TA, Dudley J, Stein BD. Association Among County-Level Economic Factors, Clinician Supply, Metropolitan or Rural

- Location, and Neonatal Abstinence Syndrome. *JAMA*. 2019 Jan 29;321(4):385-393.
39. Osmundson SS, Wiese AD, Min JY, Hawley RE, **Patrick SW**, Griffin MR, Grijalva CG. Delivery Type, Opioid Prescribing, and the Risk of Persistent Opioid Use after Delivery. *American Journal of Obstetrics & Gynecology*. 2019 Apr;220(4):405-407
 40. **Patrick SW**, Frank RG, McNeer E, Stein BD. Improving the Child Welfare System to Respond to the Needs of Substance-Exposed Infants. *Hospital Pediatrics*. 2019 Aug;9(8):651-654.
 41. Sanlorenzo LA, Cooper WO, Dudley JA, Stratton S, Maalouf FI, **Patrick SW**. Increased Severity of Neonatal Abstinence Syndrome Associated With Concomitant Antenatal Opioid and Benzodiazepine Exposure. *Hospital Pediatrics*. 2019 Aug;9(8):569-575.
 42. Crook TW, Munn E, Scott TA, Morad A, Wyatt J, Johnson DP, White M, **Patrick SW**. Improving the Discharge Process for Opioid Exposed Neonates. *Hospital Pediatrics*. 2019 Aug;9(8):643-648.
 43. Faherty LJ, Kranz AM, Russell-Fritch J, **Patrick SW**, Cantor J, Stein BD. Association of Punitive and Reporting State Policies Related to Substance Use in Pregnancy With Rates of Neonatal Abstinence Syndrome. *JAMA Network Open*. 2019 Nov 1;2(11):e1914078
 44. Goyal NK, Rohde JF, Short V, **Patrick SW**, Abatemarco D, Chung EK. Well Child Care Adherence After Intrauterine Opioid Exposure. *Pediatrics*. 2020 Feb;145(2).
 45. Lopata SM, McNeer E, Dudley JA, Wester C, Cooper WO, Carlucci JG, Espinosa CM, Dupont W, **Patrick SW**. Hepatitis C Testing Among Perinatally Exposed Infants. *Pediatrics*. 2020 Mar;145(3)
 46. Leech AA, Cooper WO, McNeer E, Scott TA, **Patrick SW**. Neonatal Abstinence Syndrome in the United States, 2004-16. *Health Affairs*. 2020 May;39(5):764-767.
 47. Hatch LD, Scott TA, Slaughter JC, Xu M, Smith AH, Stark A, **Patrick SW**, Ely W. Outcomes, Resource Use, and Financial Costs of Unplanned Extubations in Preterm Infants. *Pediatrics*. 2020 Jun;145(6):e20192819.
 48. Winkelman TNA, Ford BR, Schlafer R, McWilliams A, Admon L, **Patrick SW**. Medications for opioid use disorder among pregnant women referred by criminal justice agencies before and after Medicaid expansion: A retrospective study of admissions to treatment centers in the United States. *PLOS Medicine*. 2020 May 18;17(5):e1003119.
 49. Osmundson SS, Min JY, Wiese AD, Hawley RE, Mitchel E, **Patrick SW**, Samuels LR, Griffin MR, Grijalva CG. Opioid Prescribing After Childbirth and Risk for Serious Opioid-related Events: A Cohort Study. *Annals of Internal Medicine*. 2020 Sep 1;173(5):412-414.
 50. Faherty L, Kranz A, Russell-Fritch J, Ruder T, **Patrick SW**, Stein BD. Antenatal admissions among women with opioid-affected and non-opioid-affected deliveries. *Maternal Child Health Journal*. 2020 Sep;24(9):1179-1188.

51. Schuler MS, Heins SE, Smart R, Griffin BA, Powell D, Stuart EA, Pardo B, Smucker S, **Patrick SW**, Pacula RL, Stein BD. The State of the Science in Opioid Policy Research. *Drug & Alcohol Dependence*. 2020 Sep 1;214:108137.
52. **Patrick SW**, Henkhaus LE, Zickafoose JS, Lovell K, Halvorson A, Loch S, Letterie M, Davis MM. Well-being of Parents and Children During the COVID-19 Pandemic: A National Survey. *Pediatrics*. 2020 Oct;146(4):e2020016824.
53. **Patrick SW**, Richards MR, Dupont WD, McNeer E, Buntin MB, Martin PR, Davis MM, Davis CS, Hartmann KE, Leech AA, Lovell KS, Stein BD, Cooper WO. Association of Pregnancy and Insurance Status With Treatment Access for Opioid Use Disorder. *JAMA Open*. 2020 Aug 3;3(8):e2013456.
54. Benninger KL, Borghese T, Kovalcik JB, Moore-Clingenpeel M, Isler C, Bonachea EM, Start AR, **Patrick SW**, Maitre NL. Prenatal Exposures Are Associated With Worse Neurodevelopmental Outcomes in Infants With Neonatal Opioid Withdrawal Syndrome. *Frontiers in Pediatrics*. 2020 Aug 27;8:462.
55. Everson J, Cheng AK, **Patrick SW**, Dusetzina SB. Association of Electronic Prescribing of Controlled Substances With Opioid Prescribing Rates. *Jama Network Open*. 2020 Dec 1;3(12):e2027951.
56. Doherty KM, Scott TA, Morad A, Crook T, McNeer E, Lovell K, Gay JC, **Patrick SW**. Evaluating Definitions for Neonatal Abstinence Syndrome. *Pediatrics*. 2021 Jan; 147(1):e2020007383.
57. **Patrick SW**, Slaughter JC, Harrell FE, Martin PR, Hartmann KE, Dudley J, Stratton S, Cooper WO. Development and Validation of a Model to Predict Neonatal Abstinence Syndrome. *The Journal of Pediatrics*. 2021 Feb;229:154-160.e6.
58. King BC, Richardson T, Patel RM, Lee HC, Bamat NA, **Patrick SW**, Gautham KS, Hall M, Slaughter JL. Cost of Clinician-Driven Tests and Treatments in Very Low Birth Weight and/or Very Preterm Infants. *Journal of Perinatology*. 2021 Feb;41(2):295-304.
59. Min JY, Osmundson SS, Griffin MR, Mitchel Jr E, Wiese AD, **Patrick SW**, Grijalva CG. Variation in Discharge Opioid Prescribing After Vaginal Births. *Am J Obstet Gynecol MFM*. 2021 Mar;3(2):100298.
60. Hirai AH, Ko JY, Owens PL, Stocks C, **Patrick SW**. Neonatal Abstinence Syndrome and Maternal Opioid-Related Diagnoses in the US, 2010-2017. *JAMA*. 2021 Jan 12;325(2):146-155.
61. Harvey EM, McNeer E, McDonald MF, Shapiro-Mendoza CK, Dupont WD, Barfield W, **Patrick SW**. Association of Preterm Birth Rate with COVID-19 Statewide Stay-at-Home Orders in Tennessee. *JAMA Pediatrics*. 2021 Jun 1;175(6):635-637.
62. Schiff DM, Stoltman JJK, Nielsen TC, Myers S, Nolan M, Terplan M, **Patrick SW**, Wilens TE, Kelly J. Assessing Stigma Towards Substance Use in Pregnancy: A Randomized Study Testing the Impact of Stigmatizing Language and Type of Opioid Use on Attitudes Towards Mothers With Opioid Use Disorder. *J. Addict Medicine*. 2021 Mar 16;10.1097/ADM.0000000000000832.
63. Wiese AD, Osmundson SS, Mitchel E, Adgent M, Phillips S, **Patrick SW**, Horn Arlyn, Samuels LR, Griffin MR, Grijalva CG. Prescription Opioid Dose After

- Vaginal Delivery and the Risk of Serious Opioid-Related Events: A Retrospective Cohort Study. *Womens Health Issues*. Jul-Aug 2021;31(4):376-383.
64. Brown CM, Williams DJ, Hall M, Freundlich KL, Johnson DP, Lind C, Rehm K, Frost PA, Douplik SK, Ibrahim D, **Patrick S**, Howard LM, Gay JC. Trends in Length of Stay and Readmissions in Children's Hospitals. *Hospital Pediatrics*. 2021 Jun;11(6):554-562.
 65. Phillippi J, Schulte R, Bonnett K, Schlundt DG, Cooper WO, Martin PR, Kozhimannil KB, **Patrick SW**. Reproductive-Age Women's Experiences of Accessing Treatment for Opioid Use Disorder: We Don't do that Here." *Women's Health Issues*. 2021 Sep-Oct 2021;31(5):455-461.
 66. Faherty LJ, Heins S, Kranz AM, **Patrick SW**, Stein BD. Association Between Punitive Policies and Neonatal Abstinence Syndrome Among Medicaid-Insured Infants in Complex Policy Environments. *Addiction*. 2022 Jan;117(1):162-171.
 67. Hatch LD, Clark RH, Carlo WA, Stark AR, Ely EW, **Patrick SW**. Changes in Use of Respiratory Support for Preterm Infants in the US, 2008-2018. *JAMA Pediatrics*. 2021 Oct 1;175(10):1017-1024.
 68. Henkhaus LE, Buntin MB, Henderson SC, Lai P, **Patrick SW**. Disparities in receipt of medications for opioid use disorder among pregnant women. *Substance Abuse*. Jul 16:1-6.
 69. Ko JY, Hirai AH, Owens PL, Stocks C, **Patrick SW**. Neonatal Abstinence Syndrome and Maternal Opioid-Related Diagnoses: Analysis of ICD-10-CM Transition, 2013-2017. *Hosp Pediatr*. 2021 Aug;11(8):902-908.
 70. Wiese AD, Osmundson SS, Mitchel E Jr, Adgent M, Phillips S, **Patrick SW**, Spieker AJ, Grijalva CG. The risk of serious opioid-related events associated with common opioid prescribing regimens in the postpartum period after cesarean delivery. *Am J Obstet Gynecol MFM*. 2021 Aug 26;3(6):100475.
 71. Loch SF, Stein BD, Ghertner R, McNeer E, Dupont WD, Smart R, **Patrick SW**. Neonatal Opioid Withdrawal Syndrome Is Associated With Infant Foster Care Entry At The County Level. *Health Affairs (Millwood)*, 2021 Nov;40(11):1776-1783.
 72. **Patrick SW**, Dupont WD, McNeer E, McPheeters M, Cooper WO, Aronoff DM, Osmundson S, Stein BD. Association of Individual and Community Factors with Hepatitis C Infections Among Pregnant People. *JAMA Health Forum*. 2021;2(10):e213470.
 73. Griffin BA, Schuler MS, Stuart EA, **Patrick S**, McNeer E, Smart R, Powell D, Stein BD, Schell TL, Pacula RL. Moving beyond the classic difference-in-differences model: a simulation study comparing statistical methods for estimating effectiveness of state-level policies. *BMC Med Res Methodol*. 2021 Dec 13;21(1):279.
 74. Davis C, McNeer E, **Patrick SW**. Laws forbidding pregnancy discrimination in substance use disorder treatment are not associated with treatment access. *J Addict Med*. 2022 May-Jun 01;16(3):364-367.
 75. Schiff DM, Halvorson AE, Dupont W, Davis MM, **Patrick SW**. Impact of stigmatizing language describing opioid-exposed mother infant dyads: A randomized case vignette study. *Substance Abuse*. 2022;43(1):551-555.

76. Stone AL, Qu'D D, Lockett T, Nelson SD, Quinn EE, Potts AL, **Patrick SW**, Bruehl S, Franklin A. Leftover Opioid Analgesics and Disposal Following Ambulatory Pediatric Surgeries in the Context of a Restrictive Opioid-Prescribing Policy. *Anesthesia & Analgesia*. 2022 Jan 1;134(1):133-140.
77. Letterie MC, **Patrick SW**, Halvorson AE, Dupont WD, Carrol KN, Zickafoose JS, Williams SE. Factors Associated With Parental COVID-19 Vaccination Acceptance. *Clinical Pediatrics*. 2022 Jun;61(5-6):393-401.
78. Richards MR, Leech AA, Stein BD, Buntin MB, **Patrick SW**. Medicaid Prevalence and Opioid Use Disorder Treatment Access Disparities. *Health Services Research*. 2022 Apr;57(2):422-429.
79. Jilani SM, Jones HE, Grossman M, Jansson LM, Terplan M, Faherty LJ, Khodyakov D, **Patrick SW**, Davis JM. Standardizing the Clinical Definition of Opioid Withdrawal in the Neonate. *Journal of Pediatrics*. 2022 Apr;243:33-39.e1.
80. Wingate H, Sizemore L, Black J, Heth Z, Talley P, **Patrick SW**, Wester C. Using Public Health Surveillance Data to Determine Hepatitis C Virus Exposure Among Live-Born Infants in Tennessee, 2013-2017. *Public Health Rep*. 2022 Sep-Oct;137(5):860-866.
81. Horn A, Adgent MA, Osmundson SS, Wiese AD, Phillips SE, **Patrick SW**, Griffin MR, Grijalva CG. Risk of Death at 1 Year Following Postpartum Opioid Exposure. *American Journal of Perinatology*. 2022 May 31.
82. Beck DC, Tabb KM, Tilea A, Hall SV, Vance A, **Patrick SW**, Schroeder A, Zivin K. The Association between NICU Admission and Mental Health Diagnoses among Commercially Insured Postpartum Women in the US, 2010-2018. *Children*. 2022 Oct 13;9(10):1550.
83. Hatch LD, Bridges BC, Chapman RL, Danko ME, Schumacher RE, **Patrick SW**. Trends in Neonatal Extracorporeal Membrane Oxygenation During a Venovenous Cannula Shortage. *Pediatric Critical Care Medicine*. 2022 Nov 17.

REVIEWS

84. **Patrick S**, Donn SM. New Techniques in Neonatal Ventilation: Volume-targeted ventilation can be a powerful tool in preventing neonatal lung injury. *Advance for Respiratory Care and Sleep Medicine*. 2011; 20(3): 14.
85. **Patrick SW**, Schumacher RE, Davis MM. Methods of Mortality Risk Adjustment in the Neonatal Intensive Care Unit: A 20-Year Review. *Pediatrics*. 2013-03;131 Supplement 1:S68-74.
86. Krans EE, **Patrick SW**. Opioid Use Disorder in Pregnancy: Health Policy in the Midst of an Epidemic. *Obstetrics & Gynecology*. 2016 Jul;128(1):4-10.
87. Pryor JR, Maalouf, FI, Krans EE, Schumacher RE, Cooper WO, **Patrick SW**. The Opioid Epidemic and Neonatal Abstinence Syndrome in the US: A Review of the Continuum of Care. *Archives of Disease in Childhood: Fetal and Neonatal Edition*. 2017 Mar;102(2):F183-F187.
88. Thao V, Enns E, **Patrick SW**, Kozhimannil KB. Decision Science Can Help Policy Makers Identify and Evaluate Policies to Treat Opioid Use Disorder among Pregnant Women. *Women's Health Issues*. 2018 Jan; 28(7); 2-5.
89. Sanlorenzo LA, Stark AR, **Patrick SW**. Neonatal Abstinence Syndrome: An Update. *Current Opinion in Pediatrics*. 2018 Jan 17, epub ahead of print.

90. Coyle MG, Brogly SB, Ahmed MS, **Patrick SW**, Jones HE. Neonatal Abstinence Syndrome. *Nature Reviews Disease Primers*. 2018 Nov 22;4(1):47.

EDITORIALS

91. **Patrick SW**, Davis MM. Reformulating the Federal Match as a Key to the Sustainability of Medicaid. *JAMA Pediatrics*. 2013-03-01;167:218-20.
92. **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.
93. **Patrick SW**. The Triple Aim for Neonatal Abstinence Syndrome. *The Journal of Pediatrics*. 2015 Dec;167(6):1189-91. Epub 2015 Oct 9.
94. **Patrick SW**. A Comprehensive Approach to the Opioid Epidemic. *Obstetrics & Gynecology*. 2017 Jul;130(1):7-9.
95. **Patrick SW**, Cooper WO, Davis MM. Prescribing opioids and psychotropic drugs in pregnancy. *BMJ*. 2017 Aug 2;358.
96. **Patrick SW**. Improving Public Health Systems for Substance-Affected Pregnancies. *American Journal of Public Health*. 2018. 109(1), pp. 22–23.
97. **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.
98. 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.
99. **Patrick SW**, Lorch SA. It Is Time to ACT NOW to Improve Quality for Opioid-Exposed Infants. *Pediatrics*. 2021 Jan;147(1):e2020028340.
100. 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

101. 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.
102. Committee on Substance Use and Prevention. Substance Use Screening, Brief Intervention, and Referral to Treatment: Policy Statement. *Pediatrics*. 2016 Jun 20.
103. 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.
104. Committee on Substance Use and Prevention. Medication-Assisted Treatment of Adolescents With Opioid Use Disorders. *Pediatrics*. 2016 Aug 22.
105. Siqueira LM. Committee on Substance Use and Prevention. Nicotine and Tobacco as Substances of Abuse in Children and Adolescents. *Pediatrics*. 2017 Jan;139(1).

106. **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.
107. 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).
108. 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).
109. 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).
110. Quigley J, Committee on Substance Use and Prevention. Alcohol Use by Youth. *Pediatrics*. 2019 July;144(1). Epub 2019 Jun 24.
111. Ryan SA, Kokotailo P, Committee on Substance Use and Prevention. Alcohol Use by Youth. *Pediatrics*. 2019 July;144(1). Epub 2019 Jun 24.
112. **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
113. 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

114. 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

115. **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

116. Terplan M, **Patrick S**, Jansson LM. Re: Neonatal Abstinence Syndrome and High School Performance. *Pediatrics*. 2017 Jun;139(6).

117. 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.
118. 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

119. 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, 7th Edition. MacDonald MG, Seshia MMK. 2016, Philadelphia, PA: Wolters Kluwer.
120. **Patrick SW**. *Chapter 12: Maternal Drug Use, Infant Exposure and Neonatal Abstinence Syndrome*. Manual of Neonatal Care, 8th Edition. Cloherty JP, et al. 2016, Philadelphia, PA: Lippincott, Williams & Wilkins.
121. 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.
122. Jansson LM, **Patrick SW**. *Chapter 7: Neonatal Abstinence Syndrome*. Current Advances in Neonatal Care, An Issue of Pediatric Clinics of North America, 1st Edition. Sood D, Brodsky D. 2019, Philadelphia, PA: Elsevier.

NON PEER-REVIEWED PUBLICATIONS

Invited Articles

123. **Patrick S**. Translating Research Findings to the Press and Policy Makers. *Robert Wood Johnson Foundation Human Capital Grantee Network*. June 27, 2012.
124. **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

125. 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

126. **Patrick S**. The Tragedy of the Underinsured. *USA Today*. September 23, 2009.
127. **Patrick S**. Docs Are Not Props in Health Reform Debate. *Ann Arbor.com*. October 11, 2009.
128. **Patrick S**. Underinsured and Fighting for Life in a Broken System. *Daytona Beach News Journal*. March 21, 2010.
129. **Patrick S**. Healthcare Reform Law Benefits All Americans. *Ann Arbor.com*. March 28, 2010.

130. Congresswoman Clark K, **Patrick SW**. Congress should act on treatment for drug-dependent newborns. *The Boston Globe*. May 5, 2015.
131. Zickafoose J, **Patrick SW**. How the American Health Care Act would hurt children. *The Tennessean*. May 18, 2017
132. **Patrick SW**. Why the United States needs a national drug policy. *The Tennessean*. July 11, 2017.
133. **Patrick SW**. Opioid-dependent newborns in my West Virginia hometown point to a path out of drug crisis. *USA Today*. March 5, 2019.
134. **Patrick SW**. Wearing masks during pandemic shows love for our neighbors, not fear. *The Tennessean*. June 26, 2020.
135. **Patrick SW**. The lack of a national policy agenda for children during Covid-19 — and beyond — causes grave harm. *STAT*. August 31, 2020.
136. **Patrick SW**. Why parents don't know whom to trust in COVID-19 crisis and what we can do. *The Tennessean*. December 9, 2020.

Institutional and Government Reports

137. 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.
138. 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>
139. 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>
140. 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

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| 10/2011 | Patrick SW , 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 | Patrick SW , Davis MM, Schumacher RE. “Implications of Neonatal Abstinence Syndrome for Health Care Utilization and |

- 07/2012 Expenditures.” Peer reviewed, poster presentation. University of Michigan Pediatric Research Symposium. Ann Arbor, Michigan. **Patrick SW**, 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 **Patrick SW**. “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 **Patrick SW**. “Opiates and Infants: Understanding Neonatal Abstinence Syndrome.” Invited speaker, Pediatric Research Conference. Department of Pediatrics, Vanderbilt University, Nashville, Tennessee.
- 11/2014 **Patrick SW**. “Neonatal Abstinence Syndrome: Risk of Drug Withdrawal in Opioid-Exposed Infants.” Invited Speaker, 2014 Vanderbilt Translational Research Forum, Vanderbilt University, Nashville, Tennessee.
- 2/2015 **Patrick SW**. “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 **Patrick SW**. “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.

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.

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, 1st 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 32nd 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.

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.

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, 12th 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, 21st 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.