

**Kao-Ping Chua, MD, PhD**  
**Assistant Professor of Pediatrics**  
Susan B. Meister Child Health Evaluation and Research Center  
University of Michigan Medical School  
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## **Education and Training**

### **Education**

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|-----------------|--|
| 08/1998-05/2002 | BS in Neuroscience, <i>summa cum laude</i> , Vanderbilt University, Nashville, TN  |
| 08/2002-05/2007 | MD, Washington University School of Medicine, St. Louis, MO  |
| 08/2011-05/2015 | PhD in Health Policy (Evaluative Sciences and Statistics concentration), Harvard University, Cambridge, MA. Dissertation title: "Effects of Clinical Practice Guidelines and Insurance Coverage among Children and Young Adults." Committee: Kathy Swartz (chair), J. Michael McWilliams, Benjamin Sommers |

### **Postdoctoral training**

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|-----------------|---|
| 07/2007-06/2010 | Residency in Pediatrics, Boston Combined Residency Program (Boston Children's Hospital and Boston Medical Center), Boston, MA |
| 07/2010-06/2012 | Postdoctoral Research Fellow, Harvard Pediatric Health Services Research Fellowship, Boston, MA                               |

## **Certification and Licensure**

### **Certification**

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| 10/2010-present | American Board of Pediatrics, Certificate #96996 |
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### **Licensure**

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| 07/2010-06/2015 | State of Massachusetts, License #242746 |
| 06/2015-09/2017 | State of Illinois, License #036.138203  |
| 10/2017-present | State of Michigan, License #4301113525  |

## **Work Experience**

### **Academic**

07/2015-09/2017	Assistant Professor of Pediatrics, University of Chicago, Chicago, IL
07/2015-09/2017	Assistant Professor of Public Health Sciences, University of Chicago, Chicago, IL
10/2017-09/2019	Clinical Assistant Professor of Pediatrics, University of Michigan Medical School, Ann Arbor, MI
10/2018-present	Assistant Professor of Pediatrics, University of Michigan Medical School, Ann Arbor, MI
08/2020-present	Assistant Professor of Health Policy and Management, University of Michigan School of Public Health, Ann Arbor, MI

### **Clinical**

07/2010-06/2015	Urgent Care Attending, Boston Children's Hospital Emergency Department, Boston, MA
07/2010-06/2015	Urgent Care Attending, South Shore Hospital Emergency Department, Weymouth, MA
07/2015-09/2017	Urgent Care Attending, Comer Children's Hospital Emergency Department, University of Chicago, Chicago, IL
10/2017-present	Primary Care Physician, Department of Pediatrics, University of Michigan Medical School, Ann Arbor, MI

### **Research**

07/2010-06/2012	Research Fellow, Boston Children's Hospital, Boston, MA
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### **Non-Academic**

07/2004-06/2005	Jack Rutledge Fellow, American Medical Student Association. Between my third and fourth year of medical school, I worked at the American Medical Student Association's national office in Reston, VA. I led the organization's efforts to ensure universal access to health care and to eliminate health care disparities.
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## **Research Interests**

I am a practicing primary care pediatrician with doctoral training in health policy. A major area of my research is opioid prescribing and policy. For example, using national administrative databases, I have identified opioid prescribing patterns associated with opioid overdose among adolescents and young adults, conducted national studies on the prescribers and safety of opioid prescribing to U.S. children and young adults, documented excessive opioid prescribing

by dentists and the harms of this prescribing for patients and their families, and evaluated the effects of opioid prescribing limits for acute pain on prescribing.

A second area of my research is out-of-pocket spending. My studies have identified rising out-of-pocket spending on epinephrine auto-injectors, estimated the impact of insulin cost-sharing caps on insulin out-of-pocket spending among pediatric patients with type 1 diabetes, and documented the magnitude of out-of-pocket spending and surprise bills for maternal deliveries and newborn hospitalizations among privately insured families. My work on out-of-pocket spending for COVID-19 hospitalizations has received national coverage by outlets such as the *New York Times* and *C-SPAN*.

A third area of my research is low-value care. For example, I translated recommendations from sources such as *Choosing Wisely* into 20 claims-based measures of low-value pediatric services. Using these measures and national claims data, I found that 9% of privately insured children and 11% of publicly insured children received at least one of the 20 low-value services in 2014. As another example, I created the first comprehensive ICD-10-CM-based system for assessing antibiotic overuse in administrative data. Using this scheme and 2016 national commercial claims data, I found that 23% of antibiotic prescriptions written to privately insured children and non-elderly adults were written for conditions that do not justify the use of antibiotics.

## **Grants**

### **Current Grants**

#### **National Institute on Drug Abuse (R01DA056438-01)**

Insurance-Related Barriers to Medications for Opioid Use Disorder in Private and Medicaid plans

PI: Kao-Ping Chua, Thuy Nguyen

09/2022-08/2026

Role: MPI/contact PI

\$2,512,669

#### **National Institute on Drug Abuse (R01DA057284-01)**

Evaluating Policy Interventions to Decrease Excessive and Risky Perioperative Opioid Prescribing

PI: Kao-Ping Chua, Jennifer Waljee

09/2022-08/2026

Role: MPI

\$2,638,302

#### **Institute for Healthcare Policy and Innovation (University of Michigan)**

Racial and Ethnic Disparities in Timely Treatment Initiation Following Emergency Department Visits for Non-Fatal Opioid Overdose

PI: Thuy Nguyen

04/2022-03/2023

Role: Co-I

\$10,000

#### **Agency for Healthcare Research and Quality**

Opportunities to optimize the receipt of preventive services among children with sickle cell anemia: A Mixed Methods Approach

PI: Sarah Reeves  
09/01/2021-08/31/2025  
Role: Co-I  
\$1,551,105

**Susan B. Meister Child Health Evaluation and Research Center (University of Michigan)**

Michigan COVID-19 Research Program in Pediatrics

PI: Kao-Ping Chua  
03/2021-02/2023  
Role: PI  
\$132,500

**Benter Foundation**

U.S. Dental Opioid Prescribing: Epidemiology and Policy Interventions

PI: Chad Brummett  
03/2020-02/2023  
Role: Co-PI  
\$1,095,045

**National Institute on Drug Abuse (1K08DA048110-01)**

Using Default Opioid Prescription Settings to Limit Excessive Opioid Prescribing to Adolescents and Young Adults

PI: Kao-Ping Chua  
05/2019-04/2024  
Role: PI  
\$911,520

**Past Grants**

**Institute for Healthcare Policy and Innovation (University of Michigan)**

Views of Parents and Guardians of School-Age Children on Public School Opening During the COVID-19 Pandemic

PI: Kao-Ping Chua  
06/2020-09/2020  
Role: PI  
\$9,990

**Gorman Scholar Award (University of Michigan)**

Naloxone Prescribing to Adolescents and Young Adults at High Risk of Overdose

PI: Kao-Ping Chua  
01/2019-10/2023  
Role: PI  
\$30,000

**Institute for Healthcare Policy and Innovation (University of Michigan)**

Design and Implementation Problems for Opioid Prescribing Limits for Acute Pain

PI: Kao-Ping Chua  
11/2018-04/2019  
Role: PI  
\$10,000

**Janette Ferrantino Award (University of Michigan)**

A National Profile of Opioid Prescribing to Children

PI: Kao-Ping Chua

05/2018-04/2020

Role: PI

\$40,000

**Academic Pediatric Association Young Investigator Award**

Predictors of Overuse in Pediatrics

PI: Kao-Ping Chua

03/2017-04/2019

Role: PI

\$8,697

**NIH Loan Repayment Program (Health Disparities)**

The Effect of Health Insurance Loss on Health Outcomes at Age 19

PI: Kao-Ping Chua

07-2011-06/2013

Role: PI

**NRSA T32 training grant (NRSA T32-HS00063)**

Harvard Pediatric Health Services Research Fellowship

PI: Jonathan Finkelstein

07/2011-06/2013

Role: Trainee

**Honors and Awards**

**Institutional**

1998-2002	Harold Stirling Vanderbilt Scholarship, Vanderbilt University (Full-tuition academic scholarship)
2002	Runner-up for Founder's Medal, Vanderbilt University (Award for the top student in the College of Arts & Sciences)
2002-2007	Distinguished Student Scholarship, Washington University School of Medicine (full-tuition academic scholarship)
2004	Harrison Scholar, Washington University School of Medicine (award for the top medical students in internal medicine)
2007	George F. Gill Prize in Pediatrics, Washington University School of Medicine (award for the top medical students in pediatrics)
2019	Faculty Award for Health Services Research, Department of Pediatrics, University of Michigan Medical School
2022	Chair's Rising Star Award, Department of Pediatrics, University of Michigan Medical School

## National

2017 Academic Pediatric Association Young Investigator Award  
2022 Top Reviewer for *Annals of Internal Medicine*

## Memberships in Professional Societies

2007-present American Academy of Pediatrics  
2010-present AcademyHealth  
2014-present Academic Pediatric Association  
2020-present Society for Pediatric Research

## Editorial Positions, Boards, and Peer-Review Services

### Editorial Board

2019-2022 *Medical Care Research and Review*  
2022-present *Pediatrics*

### Journal Reviewer

2014-present *Milbank Quarterly*  
2014-present *Journal of Adolescent Health*  
2015-present *Health Services Research*  
2015-present *The Journal of Pediatrics*  
2016-present *Medical Care*  
2017-present *Public Health Reports*  
2017-present *American Journal of Public Health*  
2018-present *Medical Care Research and Review*  
2018-present *Academic Pediatrics*  
2018-present *Pediatrics*  
2018-present *Journal of Addictive Diseases*  
2018-present *JAMA Network Open*  
2019-present *JAMA*  
2019-present *Addiction*  
2019-present *BMJ*  
2019-present *Journal of the American Academy of Child and Adolescent Psychiatry*  
2019-present *PLoS Medicine*  
2019-present *JAMA Pediatrics*  
2020-present *BMC Health Services Research*  
2020-present *Health Affairs*  
2020-present *JAMA Internal Medicine*  
2020-present *Clinical Infectious Diseases*  
2021-present *Pain*  
2021-present *Annals of Internal Medicine*  
2021-present *JAMA Health Forum*  
2021-present *American Journal of Preventive Medicine*  
2021-present *Drug and Alcohol Dependence*  
2021-present *Lancet*  
2022-present *JAMA Surgery*

2022-present      *JAC - Antimicrobial Resistance*  
2023-present      *Surgery*

## **Teaching**

### **Trainees**

2016      Elizabeth Tung, MD, General Internal Medicine Fellow, Section of General Internal Medicine, Department of Medicine, University of Chicago. **Role:** Master's thesis advisor.

2016      Olga Kantor, MD, General Surgery Resident, University of Chicago. **Role:** Master's thesis advisor.

2016-2019      Joyce Woo, MD, Pediatrics Resident, Comer Children's Hospital, University of Chicago. **Role:** Master's thesis advisor.

2018-2020      Lauren Kimmel, BS, Law Student, University of Michigan School of Law. **Role:** Research mentor.

2019-present      Amel Omari, Graduate Student, University of Michigan School of Public Health. **Role:** Research mentor.

2021-present      Caitlin Priest, Medical Student, University of Michigan Medical School. **Role:** Research mentor.

2021-present      Caroline Hogan, National Clinical Scholars Program Fellow, University of Michigan Medical School. **Role:** Fellowship mentor.

2022-present      Anu Warriar, PhD candidate in Health Management and Policy, University of Michigan School of Public Health. **Role:** PhD dissertation committee member.

2023-present      Joseph Ladines-Kim, MD, PhD, internal medicine/pediatrics resident, University of Michigan Medical School. **Role:** Research mentor.

### **Teaching Activities**

2013      Harvard Kennedy School Teaching Fellow. Course: "Quantitative Analysis and Empirical Methods." One semester, 20 lectures, 50 Masters of Public Policy graduate students

2015-2017      Pritzker School of Medicine Guest Lecturer ("Health Insurance 101") Course: The American Health Care System. 1 lecture, 80 first-year medical students

2015-2017      Pritzker School of Medicine Guest Lecturer ("Regression Analysis") Course: Introduction to Medical Evidence. 2 lectures, 80 first-year medical students.

2019      Group Facilitator for University of Michigan Massive Open Online Course "Understanding and Improving the U.S. Health Care System." 1 session, 30 health professional students.

2019-present	National Clinical Scholars Program core seminar series lectures (“Measuring and Improving the Quality of U.S. Opioid Prescribing”). 3 lectures, 12 fellows.
2020	University of Michigan Pediatric Fellowship Seminar Series (“Why should we care about low-value pediatric care?”) 1 lecture, 5 fellows
2021-2022	Guest lecturer, HMP 601: Healthcare Quality, Performance Measurement, and Improvement (“Measuring and Improving the Quality of U.S. Opioid Prescribing”), University of Michigan School of Public Health. 2 sessions, 45 master’s students.
2021-present	Guest lecturer, CHEAR summer internship program (“Measuring and Improving the Quality of U.S. Opioid Prescribing”). University of Michigan Medical School. 1 session, 3 college students.
2022-present	Associate Director, CHEAR Health Services Research Fellowship
2023	National Clinical Scholars Program core seminar series lectures (“Administrative Data for Health Services Research”). 1 lecture, 12 master’s students and postdoctoral fellows.
2023	Center for Healthcare Outcomes and Policy seminar series (“Study Designs for Causal Inference in Health Services Research”). 1 lecture, 15 faculty and fellows.

## **Committee, Organizational, and Volunteer Services**

### **Committees/Boards**

2017-present	Institute for Healthcare Policy and Innovation, University of Michigan, Member
2017-present	University of Michigan Injury Center, University of Michigan, Member
2018-present	Institute for Research on Women and Gender, University of Michigan, Faculty Affiliate
2018-present	Center for Study of Drugs, Alcohol, Smoking and Health, University of Michigan, Faculty Affiliate
2019-2020	Faculty Coordinator, CHEAR Health Services Research Seminar Series, Susan B. Meister Child Health and Evaluation Research Center, University of Michigan Medical School
2021-present	CHEAR Leadership Team, Susan B. Meister Child Health and Evaluation Research Center, University of Michigan Medical School
2021-present	Director, Michigan COVID-19 Research Program in Pediatrics

2023-present	Member, COMFORT clinical practice guideline for management of pain in pregnant and peripartum women
2023-present	Co-Chair of Faculty Search Committee, CHEAR Center, University of Michigan Medical School
2023-present	Population Dynamics and Health Program, Institute for Social Research, University of Michigan, Faculty Affiliate

### **Volunteer services**

2019-present	Abstract Reviewer, Pediatric Academic Societies Meeting
2019-present	Reviewer, Resident and Fellow Research Grant Program
2020-present	Abstract Reviewer, Pediatrics Research Day, University of Michigan Medical School
2020-present	Abstract Reviewer, AcademyHealth Annual Research Meeting

### **Presentations**

#### **Extramural invited presentations**

#### **Speaker**

1. Defining and measuring overuse in pediatrics. Dartmouth University Department of Pediatrics Grand Rounds, Hanover, NH, October 2017.
2. Why should we care about low-value pediatric care? University of Chicago Advancing Pediatric Quality Symposium, Chicago, IL, November 2018.
3. Improving the safety of opioid prescribing to adolescents and young adults. Symposium co-chair and speaker, Pediatric Academic Societies 2019 Annual Meeting, Baltimore, MD, April 2019.
4. Why should we care about low-value pediatric care? Boston University Institute for Health System Innovation and Policy, November 2020.
5. Why should we care about low-value pediatric care? University of Southern California Medical School, January 2021.
6. Measuring and improving the quality of opioid prescribing to children and young adults. NIDA Clinical Trials Network Special Interest Group, November 2021.
7. Policy options to improve insulin affordability. Joslin Diabetes Center Grand Rounds, June 2022.
8. Measuring and improving the quality of U.S. opioid prescribing. O'Neill School of Public and Environmental Affairs, Indiana University, October 2022.

9. Why should we care about low-value pediatric care? Trinity Health Saint Joseph Mercy Department of Pediatrics Grand Rounds, Ann Arbor, MI, April 2023.

### **Panel**

1. Policy options to improve drug affordability for children. Hot Topic Symposia Drug Pricing and Access to Medications: Impact on Child Health. Pediatric Academic Societies 2022 Annual Meeting, Denver, CO, April 2022.
2. Congressional testimony on H.R. 4712 (Fairness in Orphan Drug Exclusivity Act) before the U.S. House of Representatives House and Energy Committee, Health Subcommittee: "Improving Safety and Transparency in America's Food and Drugs", January 2020. <https://www.congress.gov/116/meeting/house/110423/witnesses/HHRG-116-IF14-Wstate-ChuaK-20200129.pdf>
3. Challenges of conducting timely, high-quality healthcare research during the COVID-19 pandemic. IQVIA Research Forum, October 2022.

### **Intramural Invited Presentations**

#### **Seminars**

1. Why should we care about low-value pediatric care? University of Michigan Department of Pediatrics Grand Rounds, Ann Arbor, MI, April 2018.
2. Secondary data for pediatric health services research. Susan B. Meister Child Health Evaluation and Research Center, University of Michigan Medical School, October 2018.
3. Pediatric outpatient antibiotic appropriateness, University of Michigan Division of General Pediatrics monthly meeting, September 2020
4. Measuring and Improving the Quality of U.S. Opioid Prescribing. University of Michigan School of Public Health, WIDTH Forum, April 2021.
5. Measuring and Improving the Quality of U.S. Opioid Prescribing to Children and Young Adults. University of Michigan School of Public Health, Health Management and Policy Faculty Research Seminar, April 2021.

#### **Panels**

1. "Endemic" Defined: Its Impact on You, Health Care, and Society, University of Michigan Medical School Well-Aware Event, March 2022

#### **Selected media coverage**

1. Levey N. Young adults healthier after passage of Obamacare, study finds. *LA Times*, June 17, 2014.
2. Schencker L. 1 in 10 kids got unneeded medical services in 2014, U of C study says. *Chicago Tribune*, December 8, 2016.

3. Rapaport L. Another look at the surge in EpiPen costs. *Reuters Health*. March 27, 2017.
4. Bhattacharjee, P. Doctors are still prescribing codeine for kids after tonsillectomy, despite FDA warning. *CNN*. November 16, 2017.
5. Newman K. Nearly 1 in 4 antibiotic prescriptions are inappropriate. *US News and World Report*, January 16, 2019.
6. Giardano R. Opioids are overprescribed for children who get their tonsils out, study finds. *Philadelphia Inquirer*. August 8, 2019.
7. Preidt R. Teen opioid users face same OD risks as adults. *US News and World Report*. December 16, 2019.
8. Jagannathan M. An alarming number of kids get unnecessary medical care, including antibiotics and cervical-cancer screenings. *MarketWatch*. Jan 8, 2020.
9. Reinberg S. 2 in 3 Parents Would Send Kids to School in Fall: Survey. *US News and World Report*. June 30, 2020.
10. Werner A. Surprise COVID-19 costs? Loopholes and mix-ups are leading to bills for thousands of dollars. *CBS This Morning*, July 10, 2020 (TV interview).
11. Della Cava M. Online school? In-person? How parents are making their own fall 2020 decisions as COVID-19 squabbles continue. *USA Today*. July 13, 2020.
12. Kliff S. A hospital forgot to bill her coronavirus test. It cost her \$1,980. *New York Times*. August 3, 2020.
13. Kliff S. The vaccines are supposed to be free. Surprise bills could happen anyway. *New York Times*. December 17, 2020.
14. Health Day News. Poll Finds Most U.S. Young People Take COVID Threat Seriously. April 18, 2021
15. C-SPAN [TV appearance]. Dr. Kao-Ping Chua on Cost of COVID-19 Hospitalization and Treatment. *Washington Journal*, June 14, 2021
16. Murez C. \$10,000: What new parents might pay for childbirth, even with insurance. *Health Day News*. June 17, 2021.
17. LaMotte S. "Surprise" hospital bills after childbirth are common, study says, but here is what to do. *CNN*. July 2, 2021.
18. Avery T. COVID-19 pandemic made it harder for Americans to pay medical bills, survey finds. *USA Today*. July 20, 2021.
19. Kliff S. Covid medical bills are about to get bigger. *New York Times*. September 2, 2021.
20. Jong Y. We have life-saving treatments for the opioid overdose epidemic. Here is why they often do not get used. *San Francisco Chronicle*. December 29, 2021.

21. Hiltzik M. A new study calculates the incredible cost of ivermectin stupidity. *LA Times*. Jan 14, 2022.
22. McPhillips D. COVID-19 hospitalizations average \$4,000 in out-of-pocket costs per visit, research says. *CNN*. February 26, 2022.
23. Edwards E, Bauer T, Thompson A. More families facing price shocks for lifesaving children's medications. *NBC News*. January 7, 2023.
24. The Today Show [TV appearance]. Dr. Kao-Ping Chua on out-of-pocket costs for epinephrine auto-injectors. January 21, 2023.

## **Bibliography**

### **Peer-Reviewed Publications**

1. **Chua KP**, Chun MM. Implicit scene learning is viewpoint dependent. *Perception & Psychophysics*. 2003;65(1):72-80. PMID: 12699310
2. Kelley TA, Chun MM, **Chua KP**. Effect of scene inversion on change detection of targets matched for visual salience. *J Vis*. 2003;3(1):1-5. PMID: 12678620
3. **Chua KP**, Gordon MB, Sectish TC, Landrigan CP. Effects of a night team system on resident sleep and work hours. *Pediatrics*. 2011;128(6):1142-1147. PMID: 22123867
4. **Chua KP**, Schuster MA, McWilliams JM. Differences in health care access and utilization between older adolescents and young adults with asthma. *Pediatrics*. 2013;131(5):892-901. PMID: 23610211. PMCID: PMC4074656
5. **Chua KP**, Sommers BD. Changes in health and medical spending among young adults under health reform. *JAMA*. 2014;311(23):2437-2439. PMID: 24938568
6. **Chua KP**, Neuman MI, McWilliams JM, Aronson PL. Association between clinical outcomes and hospital guidelines for cerebrospinal fluid testing in febrile infants aged 29-56 days. *J Pediatr*. 2015; 167:1340-1346.e9. PMID: 26477870. PMCID: PMC5535778
7. Sommers BD, **Chua KP**, Kenney JM, Long SK, McMorrow S. California's early coverage expansion under the Affordable Care Act: a county-level analysis. *HSR*. 2016; 51(3):825-845. PMID: 26443883. PMCID: PMC4874826
8. Tung EL, Baig AA, Laiteerapong N, Huang ES, **Chua KP**. Racial and ethnic disparities in diabetes screening between Asian Americans and other adults. *J Gen Intern Med*. 2016;32(4):423-429. PMID: 27848187. PMCID: PMC5377880
9. **Chua KP**, Schwartz AL, Volerman A, Conti RM, Huang ES. Use of low-value pediatric services among the commercially insured. *Pediatrics*. 2016; 138(6): e20161809. PMID: 27940698. PMCID: PMC5127068

10. **Chua KP**, Conti RM. Out-of-pocket spending among commercially insured patients for epinephrine autoinjectors between 2007 and 2014. *JAMA Intern Med.* 2017; 177(5):736-739. PMID: 28346591. PMCID: PMC5377880
11. Trueger NS, **Chua KP**, Hussain A, Liferidge AT, Pitts SR, Pines JM. Incorporating alternative care site characteristics into estimates of substitutable ED visits. *Med Care.* 2017; 55(7):693-697. PMID: 28498199
12. **Chua KP**, Shrime MG, Conti RM. Effect of FDA investigation on opioid prescribing to children after tonsillectomy/adenoidectomy. *Pediatrics.* 2017;140(6): e20171765. PMID: 29146621
13. **Chua KP**, Conti RM. Out-of-pocket spending on orphan drug prescriptions among commercially insured adults in 2014. *J Gen Intern Med.* 2019;34(3):338-340. PMID: 30324293
14. McCabe SE, Wilens TE, Boyd CJ, **Chua KP**, Voepel-Lewis T, Schepis TS. Age-specific risk of substance use disorders associated with controlled medication use and misuse subtypes in the United States. *Addict Behav.* 2019; 90:285-293. PMID: 30472537
15. **Chua KP**, Fischer MA, Linder JA. Appropriateness of outpatient antibiotic prescribing among privately insured US patients: ICD-10-CM based cross sectional study. *BMJ.* 2019;364: k5092. PMID: 30651273. PMCID: PMC6334180
16. Harbaugh CM, Lee JS, **Chua KP**, Kenney B, Iwashyna TJ, Englesbe MJ, Brummett CM, Bohnert AS, Waljee JF. Association between long-term opioid use in family members and persistent opioid use after surgery among adolescents and young adults. *JAMA Surg.* 2019; Feb 27: e185838. PMID: 30810738
17. **Chua KP**, Brummett CM, Conti RM, Haffajee RL, Prosser LA, Bohnert ASB. Assessment of prescriber and pharmacy shopping in the family members of patients prescribed opioids. *JAMA Netw Open.* 2019; 2(5): e193673. PMID: 31074819.
18. **Chua KP**, Harbaugh CM, Brummett CM, Bohm LA, Cooper KA, Thatcher AI, Brenner MJ. Association of perioperative opioid prescriptions with risk of complications after tonsillectomy in children. *JAMA Otolaryngol Head Neck Surg.* 2019; 145(10):911-918. PMID: 31393537. PMCID: PMC6692671.
19. Woo JL, Anderson BR, Gruenstein D, Conti RM, **Chua KP**. Minimum travel distance among publicly insured infants with severe congenital heart disease: potential impact of in-state restrictions. *Pediatr Cardiol.* 2019; 40(8): 1559-1608. PMID: 31463514. PMCID: PMC6851488.
20. **Chua KP**, Brummett CM, Conti RM, Bohnert ASB. Association of opioid prescribing patterns with prescription opioid overdose in adolescents and young adults. *JAMA Pediatr.* 2020; 174(2): 141-148. PMID: 31841589. PMCID: PMC6990690
21. Agarwal S, Bryan JD, Hu HM, Lee JS, **Chua KP**, Haffajee RL, Brummett CM, Englesbe MJ, Waljee JF. Association of state opioid duration limits with postoperative opioid prescribing. *JAMA Netw Open.* 2019; 2(12): e1918361. PMID: 31880801. PMCID: PMC6991309.

22. **Chua KP**, Schwartz AL, Volerman A, Conti RM, Huang ES. Differences in the receipt of low-value services between publicly and privately insured children. *Pediatrics*. 2020; 145(2): e20192325. PMID: 31911477. PMCID: PMC6993279.
23. Schuiteman S, **Chua KP**, Chang T. Self-management of health care among youth: implications for policies on transition of care. *J Adol Health*. 2020; 66(5): 616-622. PMID: 32113903.
24. Harbaugh CM, Vargas G, Sloss KR, Bohm LA, Cooper KA, Thatcher AL, Zopf DA, **Chua KP**, Waljee JF, Gadepalli SK. Association of Opioid Quantity and Caregiver Education with Pain Control after Pediatric Tonsillectomy. *Otolaryngol Head Neck Surg*. 2020 May; 162(5): 746-743. PMID: 32204656
25. Kimmel L, Conti RM, Volerman A, **Chua KP**. Pediatric orphan drug indications: 2010-2018. *Pediatrics* 2020; 145(4): e20193128. PMID: 32127360. PMCID: PMC7111489.
26. **Chua KP**, Lee JM, Conti RM. Out-of-pocket spending for insulin and other health care services among privately insured patients with type 1 diabetes. *JAMA Intern Med*. 2020; 180(7):1012-1014. PMID: 32478819. PMCID: PMC7265118.
27. **Chua KP**, Linder JA. Prevalence of inappropriate antibiotic prescribing by antibiotic among privately and publicly insured non-elderly US patients, 2018. *JGIM*. 2021; 36(9): 2861-2864. Epub 2020 Oct 1. PMID: 33006082
28. **Chua KP**, Conti RM. Trends in orphan drug spending and out-of-pocket spending among U.S. children, 2013-18. *Health Affairs*. 2020; 39(10): 1806-1811. PMID: 33017253; PMCID: PMC7968887
29. **Chua KP**, Lee JM, Conti RM. Potential changes in insulin out-of-pocket spending under cost-sharing caps among pediatric patients with type 1 diabetes. *JAMA Pediatr*. 2021; 175(1):90-92. PMID: 32716507; PMCID: PMC7385670.
30. **Chua KP**, Dejonckheere M, Reeves SL, Tribble AC, Prosser LA. Factors associated with school attendance plans and support for COVID-19 risk mitigation measures among parents and guardians. *Acad Ped*. 2021; 21(4): 684-693. PMID: 33249257.
31. **Chua KP**, Conti RM. Out-of-Pocket Spending for Influenza Hospitalizations in Medicare Advantage. *AJPM*. 2021; 60(4):537-541. PMID: 33612337; PMCID: PMC7890338.
32. **Chua KP**, Hu H, Waljee JF, Brummett CM, Nalliah R. Opioid prescribing patterns by dental procedure among US privately and publicly insured patients, 2013 through 2018. *JADA*. 2021; 152(4):309-317. PMID: 33637299; PMCID: PMC8118387.
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### **Abstracts/posters**

#### **Oral presentations**

1. **Chua KP**, Gordon MB, Sectish TC, Landrigan CP. Effects of implementing a night team system on resident sleep and work hours. Platform presentation, Pediatric Academic Societies 2010 Annual Meeting, Vancouver, British Columbia, Canada, May 2010.
2. **Chua KP**, Trueger NS, Hussain A, Liferidge AT, Pitts SR, Pines JM. Prevalence, and predictors of substitutable ED visits by children. Platform presentation, Pediatric Academic Societies 2016 Annual Meeting, Boston, MA, May 2016.
3. **Chua KP**, Brummett CM, Conti RM, Haffajee RL, Prosser LA, Bohnert ASB. Doctor and pharmacy shopping among the family members of children prescribed opioids. Platform presentation, Pediatric Academic Societies 2019 Annual Meeting, Baltimore, MD, April 2019.
4. **Chua KP**, Conti RM. Orphan drug spending on orphan indications among the commercially insured. Platform presentation, AcademyHealth Annual Research Meeting, Washington, DC, June 2019
5. **Chua KP**, Linder JA. Prevalence of Inappropriate or Off-Label Azithromycin Prescribing to U.S. Children in 2017. Platform presentation, Pediatric Academic Societies 2020 Annual Meeting, Philadelphia, PA (conference canceled due to COVID-19 but presentation given online through webinar on August 7, 2020).
6. Sharifi M, **Chua KP**. Underuse and Overuse of Screening Tests for Co-Morbidities among Children with Obesity. Platform presentation, Pediatric Academic Societies 2020 Annual Meeting, Philadelphia, PA (conference canceled due to COVID-19).
7. Dalziel K, **Chua KP**, Ryan AM, Freed GL, Levy H, Ayanian JZ. Association Between ACA Medicaid Expansion and Coverage for Low-Income Children. Platform presentation, Pediatric Academic Societies 2020 Annual Meeting, Philadelphia, PA (conference canceled due to COVID-19).
8. **Chua KP**, Lee JM, Conti RM. Out-of-pocket spending for insulin and other health care services among privately insured patients with type 1 diabetes. Platform presentation,

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9. **Chua KP**, Fendrick AM, Conti RM, Moniz MH. Impact of Federal Protections Against Surprise Bills on Financial Liability for Childbirth. Platform presentation, Pediatric Academic Societies 2021 Annual Meeting (conference held virtually due to COVID-19), May 2021
10. **Chua KP**, Volerman A, Conti RM. Changes in Prescription Drug Dispensing to U.S. Children During the COVID-19 Pandemic. AAP Presidential Plenary, Pediatric Academic Societies 2021 Annual Meeting (conference held virtually due to COVID-19), May 2021
11. **Chua KP**, Brummett CM, Conti RM, Bohnert ASB. U.S. Opioid Prescribing Before and During the COVID-19 Pandemic. Platform presentation, AcademyHealth 2021 Annual Research Meeting (conference held virtually due to COVID-19), June 2021.
12. **Chua KP**, Brummett CM, Conti RM, Bohnert ASB. Pediatric Opioid Prescribing in 2019. Platform presentation, AcademyHealth 2021 Annual Research Meeting (conference held virtually due to COVID-19), June 2021.
13. **Chua KP**, Conti RM, Becker NV. Mortality in the Families of U.S. Children During the COVID-19 Pandemic. Pediatric Academic Societies 2022 Annual Meeting, Denver, CO, April 2022
14. **Chua KP**, Nguyen T, Waljee J, Conti RM, Bohnert ASB, Brummett CM. Association Between State Limits and Opioid Prescribing to U.S. Children. Pediatric Academic Societies 2022 Annual Meeting, Denver, CO, April 2022.
15. **Chua KP**, Conti RM, Becker NV. Mortality in the Families of U.S. Children During the COVID-19 Pandemic. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.
16. **Chua KP**, Nguyen T, Waljee J, Conti RM, Bohnert ASB, Brummett CM. Association Between State Limits and Opioid Prescribing to U.S. Children. AcademyHealth Annual Research Meeting, Washington, DC, June 2022.

## Posters

1. **Chua KP**, Conti RM. Opportunities to reduce codeine prescriptions to children. Pediatric Academic Societies 2018 Annual Meeting, Baltimore, MD, April 2019. Toronto, Canada.
2. **Chua KP**, Conti RM, Lee S, Mangione-Smith R. Disparities in chronic disease prevalence between publicly and commercially insured children. Pediatric Academic Societies 2019 Annual Meeting, Baltimore, MD, April 2019.
3. **Chua KP**, Schwartz AL, Volerman A, Conti RM, Huang ES. Differences in low-value pediatric service use between publicly and commercially insured children. Pediatric Academic Societies 2019 Annual Meeting, Baltimore, MD, April 2019.
4. **Chua KP**, Conti RM, Lee S, Mangione-Smith R. Claims-based algorithm to identify children with individual chronic conditions. AcademyHealth Annual Research Meeting, Washington, DC, June 2019

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6. Ng S, Dombkowski K, Raphael J, **Chua KP**, Reeves SL. Patterns of primary care, specialty care, and preventive service use among children with sickle cell anemia. Pediatric Academic Societies 2021 Annual Meeting (conference held virtually due to COVID-19)