

Kao-Ping Chua, MD, PhD

Assistant Professor of Pediatrics

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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 |

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 |
| 07/2010-06/2010 | 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 |

Academic, Administrative, Clinical, Research and Military Appointments

Academic appointments

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|-----------------|---|
| 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-present Clinical Assistant Professor in Pediatrics, University of Michigan Medical School, Ann Arbor, MI

Clinical appointments

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

10/2017-present Primary Care Physician, Department of Pediatrics and Communicable Diseases, University of Michigan Medical School, Ann Arbor, MI

Research appointments

07/2010-06/2012 Research Fellow, Boston Children's Hospital, Boston, MA

Gaps

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.

Research Interests

As a practicing general pediatrician with doctoral training in health policy, I combine a clinical perspective with rigorous methods to conduct research that is relevant to both patients and policymakers. A major area of my research is opioid prescribing and policy. For example, I demonstrated that the 2013 FDA black box warning against the use of codeine among children undergoing tonsillectomy and/or adenoidectomy was associated with substantial but incomplete reductions in inappropriate codeine prescribing in this scenario. A second major area of my research is overuse of health care services in pediatrics. For example, I translated recommendations from sources such as Choosing Wisely into 20 measures that identify inappropriate pediatric services in claims data, including 5 measures related to antibiotic overuse. Using these measures and claims from 4.4 million commercially insured children across the U.S., I found that at least 10% of children received one of the 20 low-value services in 2014. A final major area of my research is prescription drug utilization and spending. For example, I demonstrated that annual out-of-pocket spending on the EpiPen increased by 123% between 2007 and 2014 among commercially insured patients with severe allergies, largely due to price increases imposed by the manufacturer during this period.

Grants

Current Grants

National Institute for Drug Abuse

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

PI: Kao-Ping Chua

04/2019-03/2024

Role: PI

\$982,800

Institute for Health Policy and Innovation (University of Michigan)

Design and Implementation Problems for Opioid Prescribing Limits for Acute Pain

PI: Kao-Ping Chua

11/2018-07/2019

Role: PI

\$10,000

Jannette Ferrantino Award (University of Michigan Department of Pediatrics)

A National Profile of Opioid Prescribing to Children

PI: Kao-Ping Chua

05/2018-05/2019

Role: PI

\$40,000

Academic Pediatric Association Young Investigator Award

Predictors of Overuse in Pediatrics

PI: Kao-Ping Chua

03/2017-05/2019

Role: PI

\$8,697

Past Grants

Institute for Translational Medicine Pilot Grant (University of Chicago)

Use of Low-Value Pediatric Services in the Medicaid Population

PI: Kao-Ping Chua

06/2016-06/2017

Role: PI

\$32,575

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

Fred Lovejoy Resident Research and Education Award (Boston Children's Hospital)

Effect of Implementing a Night Team System on Resident Sleep/Work Hours

PI: Kao-Ping Chua

07/2009-06/2010

Role: PI

\$5,000

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, 29 th Annual Pediatric Research Symposium, Department of Pediatrics, University of Michigan Medical School

National

2017	Academic Pediatric Association Young Investigator Award
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Memberships in Professional Societies

2007-present	American Academy of Pediatrics
2010-present	AcademyHealth
2014-present	Academic Pediatric Association
2015-present	Society for Pediatric Research, Junior Section

Editorial Positions, Boards, and Peer-Review Services

Journal Reviewer

2014-present	<i>Milbank Quarterly</i>
2014-present	<i>Journal of Adolescent Health</i>
2015-present	<i>Health Services Research</i>
2015-present	<i>The Journal of Pediatrics</i>
2016-present	<i>Medical Care</i>
2017-present	<i>Public Health Reports</i>
2017-present	<i>American Journal of Public Health</i>
2018-present	<i>Medical Care Research and Review</i>
2018-present	<i>Academic Pediatrics</i>
2018-present	<i>Pediatrics</i>
2018-present	<i>Journal of Addictive Diseases</i>
2018-present	<i>JAMA Network Open</i>

Editorial Board

2019-present *Medical Care Research and Review*

Teaching Activity

Institutional

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

Mentoring

University of Chicago, Department of Public Health Sciences 2015-2017

Thesis advisor for Masters of Science for Clinical Professionals program:

- Elizabeth Tung, M.D., General Internal Medicine Fellow, Section of General Internal Medicine, Department of Medicine, University of Chicago
- Olga Kantor, M.D., General Surgery Resident, University of Chicago
- Joyce Hsu, M.D., Pediatrics Resident, Comer Children's Hospital, University of Chicago
- Anna Volerman-Beaser, M.D., Assistant Professor of Medicine and Pediatrics, University of Chicago

Committee and Administrative Services

Committee Services

Institutional

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 Center for Study of Drugs, Alcohol, Smoking and Health, University of Michigan, Faculty Affiliate

2018-present Institute for Research on Women and Gender, University of Michigan, Faculty Affiliate

Visiting Professorships, Seminars, and Extramural Invited Presentations

Extramural invited presentations

1. 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. Prevalence and predictors of substitutable ED visits by children. Platform presentation, Pediatric Academic Societies 2016 Annual Meeting, Boston, MA, May 2016.
3. Defining and measuring overuse in pediatrics. Dartmouth University Department of Pediatrics Grand Rounds, Hanover, NH, October 2017.
4. Why should we care about low-value pediatric care? University of Chicago Advancing Pediatric Quality Symposium, Chicago, IL, November 2018.
5. Doctor and pharmacy shopping among the family members of children prescribed opioids. Platform presentation, Pediatric Academic Societies 2019 Annual Meeting, Baltimore, MD, April 2019.
6. 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.
7. Orphan drug spending on orphan indications among the commercially insured. Platform presentation, AcademyHealth Annual Research Meeting, Washington, DC, June 2019

Seminars

1. Why should we care about low-value pediatric care? University of Michigan Department of Pediatrics and Communicable Diseases Grand Rounds, Ann Arbor, MI, April 2018.

Publications

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 RS. 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 RS. Effect of FDA investigation on opioid prescribing to children after tonsillectomy/adenoidectomy. *Pediatrics*. 2017;140(6): e20171765. PMID: 29146621
13. **Chua KP**, Conti RS. 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 RC, 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.

Viewpoints

1. **Chua KP**, Conti RS, Freed GA. Appropriately framing child health care spending – a pre-requisite for value improvement. *JAMA* 2018; 319(11):1087-1088. PMID: 29482195
2. **Chua KP**, Brummett CM, Waljee JF. Opioid prescribing limits for acute pain: potential problems with design and implementation. *JAMA*. 2019; 321(7):643-644. PMID: 30703214