

# DAVID L. CHIN

## CURRICULUM VITAE

March 29, 2021

### **CONTACT INFORMATION**

ADDRESS: Arnold House 331  
University of Massachusetts Amherst  
715 N. Pleasant Street  
Amherst, MA 01003

EMAIL: [dchin@umass.edu](mailto:dchin@umass.edu)

PHONE: (413) 545-4415

### **EDUCATION**

2013 Ph.D., Epidemiology | Health Services Research and Health Economics  
University of California Davis, CA

2000 B.S., Biochemistry and Molecular Biology  
University of California Santa Cruz, CA

### **MAJOR RESEARCH INTERESTS**

- Healthcare quality measurement.
- Quantifying the impact of social determinants on health outcomes.
- Developing applied machine learning methods to learn from textual health care data.

### **CURRENT APPOINTMENTS**

2017-present Assistant Professor, Department of Health Promotion and Policy  
School of Public Health and Health Sciences  
University of Massachusetts Amherst, MA

2019-present Adjunct Fellow, Institute for Healthcare Delivery and Population Science  
Baystate Health, Springfield, MA

2017-present Faculty Affiliate, Computational Social Science Institute  
University of Massachusetts Amherst, MA

## **PUBLICATIONS**

(\*\* author/coauthor is a mentee)

### **PEER-REVIEWED MANUSCRIPTS**

<https://bit.ly/3fmiLfh>

1. **Chin DL**, Wilson MH, Trask AS, Johnson VT, Neaves BI, Gojova A, Hogarth MA, Bang H, Romano PS. Repurposing Clinical Decision Support System Data to Measure Dosing Errors and Clinician-Level Quality of Care. *J Med Syst.* 2020 Sep 8;44(10):185. doi: 10.1007/s10916-020-01603-9. PMID: 32897483.
2. Gundlapalli AV, Redd AM, Suo Y, Pettey WBP, Brignone E, **Chin DL**, Walker LE, Poltavskiy EA, Janak JC, Howard JT, Sosnov JA, Stewart IJ. Predicting and Planning for Musculoskeletal Service-Connected Disabilities in VA Using Disability for Active Duty OEF/OIF Military Service Members. *Mil Med.* 2020 Jan 7;185(Suppl 1):413-419. doi: 10.1093/milmed/usz223. PMID: 32074349.
3. Redd AM, Gundlapalli AV, Suo Y, Pettey WBP, Brignone E, **Chin DL**, Walker LE, Poltavskiy EA, Janak JC, Howard JT, Sosnov JA, Stewart IJ. Exploring Disparities in Awarding VA Service-Connected Disability for Post-Traumatic Stress Disorder for Active Duty Military Service Members from Recent Conflicts in Iraq and Afghanistan. *Mil Med.* 2020 Jan 7;185(Suppl 1):296-302. doi: 10.1093/milmed/usz208. PMID: 32074380.
4. **Chin DL**, Zeber JE. Mental Health Outcomes Among Military Service Members After Severe Injury in Combat and TBI. *Mil Med.* 2020 Jun 8;185(5-6):e711-e718. doi: 10.1093/milmed/usz440. PMID: 31889174.
5. Clark JM, Cooke DT, **Chin DL**, Utter GH, Brown LM, Nuño M. Does one size fit all? An evaluation of the 2018 Leapfrog Group minimal hospital and surgeon volume thresholds for lung surgery. *J Thorac Cardiovasc Surg.* 2020 May;159(5):2071-2079.e2. doi: 10.1016/j.jtcvs.2019.09.082. Epub 2019 Oct 1. PMID: 31740117.
6. Clark JM, Cooke DT, Hashimi H\*\*, **Chin D**, Utter GH, Brown LM, Nuño M. Do the 2018 Leapfrog Group Minimal Hospital and Surgeon Volume Thresholds for Esophagectomy Favor Specific Patient Demographics? *Ann Surg.* 2019 Aug 13. doi: 10.1097/SLA.0000000000003553. Epub ahead of print. PMID: 31425294.
7. Shetty VA\*\*, Balzer LB, Geissler KH, **Chin DL**. Association Between Specialist Office Visits and Health Expenditures in Accountable Care Organizations. *JAMA Netw Open.* 2019 Jul 3;2(7):e196796. doi: 10.1001/jamanetworkopen.2019.6796. PMID: [31290989](https://pubmed.ncbi.nlm.nih.gov/31290989/)
8. **Chin DL**, Bang H, Manickam RN\*\*, Romano PS. Rethinking Thirty-Day Hospital Readmissions: Shorter Intervals Might Be Better Indicators Of Quality Of Care. *Health Affairs.* 2016;35(10):1867-1875. PMID: [27702961](https://pubmed.ncbi.nlm.nih.gov/27702961/).

9. Polage CR, Gyorke C, Kennedy M, Leslie J, **Chin DL**, Wang S, Nguyen H, Huang B, Tang YW, Lee L, Kim K, Taylor S, Romano PS, Panacek E, Goodell P, Solnick JV, Cohen SH. Overdiagnosis of *Clostridium difficile* Infection in the Molecular Era, JAMA Intern Med. Sep 8, 2015;1-10. PMID: [26348734](#).
10. **Chin DL**, Wilson MH, Bang H, Romano PS. Comparing Patient Outcomes of Academician-Preceptors, Hospitalist-Preceptors, and Hospitalists on Internal Medicine Services in an Academic Medical Center. Journal of General Internal Medicine. Aug 12, 2014. PMID: [25112461](#).
11. Polage CR, **Chin DL**, Leslie JL, Tang J, Cohen SH, Solnick JV. Outcomes in patients tested for *Clostridium difficile* toxins. Diagnostic Microbiology and Infectious Disease. Dec 2012;74(4): 369-373. PMID: [23009731](#).
12. Armstrong AW, Lin SW, Chambers CJ\*\*, Sockolov ME, **Chin DL**. Psoriasis and hypertension severity: results from a case-control study. PloS One. 2011;6(3): e18227. PMID: [21479272](#).
13. Katsumata Y, Ridgway WM, Oriss T, Gu X, **Chin D**, Wu Y, Fertig N, Oury T, Vandersteen D, Clemens P, Camacho CJ, Weinberg A, Ascherman DP. Species-specific immune responses generated by histidyl-tRNA synthetase immunization are associated with muscle and lung inflammation. Journal of Autoimmunity. Sep-Nov 2007;29(2-3): 174-186. PMID: [17826948](#).
14. Advani R, Lum BL, Fisher GA, Halsey J, **Chin DL**, Jacobs CD, Sikic BI. A phase I trial of liposomal doxorubicin, paclitaxel and valspodar (PSC-833), an inhibitor of multidrug resistance. Annals of Oncology: official journal of the European Society for Medical Oncology / ESMO. Dec 2005;16(12): 1968-1973. PMID: [16126736](#).
15. Greenberg PL, Lee SJ, Advani R, Tallman MS, Sikic BI, Letendre L, Dugan K, Lum B, **Chin DL**, Dewald G, Paietta E, Bennett JM, Rowe JM. Mitoxantrone, etoposide, and cytarabine with or without valspodar in patients with relapsed or refractory acute myeloid leukemia and high-risk myelodysplastic syndrome: a phase III trial (E2995). Journal of Clinical Oncology Mar 15 2004;22(6): 1078-1086. PMID: [15020609](#).
16. **Chin DL**, Lum BL, Sikic BI. Rapid determination of PEGylated liposomal doxorubicin and its major metabolite in human plasma by ultraviolet-visible high-performance liquid chromatography. Journal of Chromatography. B, Analytical technologies in the biomedical and life sciences. Nov 5 2002;779(2): 259-269. PMID: [12361740](#).

#### MANUSCRIPTS IN PREPARATION

1. **Chin DL**, Shetty VA\*\*, Blodgett SL, O'Connor BT, Natural Language Processing Methods to Learn about Living Circumstance from Electronic Health Records, a health informatics journal.

2. **Chin DL**, Shetty VA \*\*, Habiyaremye T \*\*, Martinez AD, Kern MS, Wright EA, A Conceptual Model for Social Determinants of Health Representations in Electronic Health Records, a medical sociology journal.
3. **Chin DL**, Parmar J \*\*, Henderson MP, Applied Quantum Computation for Health Care to Predict Hospital Performance, a general medical journal.
4. **Chin DL**, Lee, CH, Beck E \*\*, Sandrock CE. The Effects of Early Administration of Botulism Antitoxin in Black Tar Heroin-Using Patients. an infectious diseases journal.
5. **Chin DL**, Johnson VT, Trask AS, Wilson MH, Neaves BI, Bang H, Romano PS. The Association Between ACGME Duty Hour Rules and Prescribing Errors in the Hospital. a general medical journal.

### PEER-REVIEWED ABSTRACTS

1. **Chin DL**, Shetty VA \*\*, Blodgett SL, O'Connor BT, Natural Language Processing Methods to Learn about Social Determinants of Health from Electronic Health Records, Poster Presentation at AcademyHealth Annual Meeting, June 2, 2019, Washington DC.
2. **Chin DL**, Walker L, Janak JC, Howard JT, Sosnov JA, Stewart IJ; Mental Health Outcomes associated with Traumatic Brain Injury among military Service Members, after severe Combat injury; Podium Presentation at the Military Health System Research Symposium, Aug 30, 2017, Kissimmee FL. <http://bit.ly/1XBDsIM>
3. **Chin DL**, Bang H, Manickam RN \*\*, Romano PS. When Does the Hospital-Attributable Quality Signal Fade?—Empirical Evidence for a Seven-Day Readmission Interval. Podium Presentation, Agency for Healthcare Quality and Research Meeting; Oct 5, 2015, Crystal City, VA. <http://bit.ly/2eU3GmE>
4. **Chin DL**, Bang H, Manickam RN \*\*, Romano PS. When Does the Hospital-Attributable Quality Signal Fade?—Empirical Evidence for a Seven-Day Readmission Interval. Podium Presentation, 21<sup>st</sup> Annual National Research Services Award Conference; June 13, 2015, Minneapolis, MN. <http://bit.ly/2e99wit>
5. **Chin DL**, Trask AS, Johnson VT, Wilson MH, Neaves BI, Gojova A, Bang H, Romano PS. Repurposing Decision Support Data to Detect Prescribing Errors—An Application for Quality Measurement. Podium Presentation, 20<sup>th</sup> Annual National Research Services Award Conference, and Poster Presentation, Electronic Data Methods Stakeholder Symposium-Academy Health Annual Research Meeting; Jun 7, 2014, San Diego, CA. <http://bit.ly/2f3G23h>

6. **Chin DL**, Gojova A, Trask AS, Hill ML, Romano PS. Repurposed Data to Measure Physician Quality of Care—Can Prescribing Errors Be Detected from Decision Support Systems Data? Poster Presentation at the Electronic Data Methods Stakeholder Symposium-Academy Health Annual Research Meeting; Jun 22, 2013, Baltimore, MD.  
<http://bit.ly/2fhSmSu>
7. Polage C, Gyorke C, Kennedy M, Leslie J, **Chin D**, Wang S, Nguyen H, Huang B, Tang Y, Panacek E, Goodell P\*\*, Solnick J, Cohen, S. Outcomes in *Clostridium difficile* Patients with Negative Toxin Immunoassay Results. Podium Presentation, IDWeek; Oct 05, 2013, San Francisco, CA.
8. Polage C, **Chin D**, Leslie J, Tang J, Cohen S, Solnick J. Outcomes in *Clostridium difficile* Toxin Negative/DNA Positive Diarrhea. Podium Presentation, Association for Clinical and Translational Science Annual Meeting; April 27-29, 2011, Washington DC.
9. Davies S, **Chin DL**. Emergency Preparedness: Can We Achieve Valid Measurement? Podium Presentation, Agency for Healthcare Research and Quality Annual Conference; Sept 28, 2010, Bethesda, MD.
10. **Chin DL**, Sandrock CE. The Effect of Early vs. Late Antitoxin and Antibiotic Administration in Patients with Black Tar Heroin-Associated Wound Botulism. Podium Presentation, Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC); Sept 12, 2010, Boston, MA.
11. Armstrong AW, Lin S, Chambers CJ, Sockolov M, **Chin D**. Independent and Significant Association between Psoriasis and Severity of Hypertension. Proceedings of the Journal of Investigative Dermatology, 2010: 130 (S1), pp S60. Podium Presentation, Annual Meeting of the Society for Investigative Dermatology; May 8, 2010, Atlanta, Georgia.
12. **Chin DL**, Paterniti DA, Sandrock CE, Natale JE, Romano PS. A New Perspective: Institutional Barriers in Preventing Hospital Acquired Infections. Poster Presentation at the Clinical and Translational Science Awards; May 4, 2010, Washington University, St. Louis MO.
13. Lacayo NJ, **Chin DL**, Lum BL, Bernstein M, Weinstein HJ, Arceci RJ, Sikic BI, Dahl GV. Pharmacokinetics of Mitoxantrone in a Phase I Trial of PSC-833 (Valspodar) as an MDR1/Pg-p Modulator in Acute Myeloid Leukemia (AML) from the Children's Oncology Group (COG). Poster Presentation, American Society of Clinical Oncology Annual Meeting; May 18-21, 2002, Orlando, FL.
14. Lum BL, **Chin DL**, Fisher GA, Kalafsky G, Smith HT, Halsey J, Hausdorff J, Sikic BI. A Pharmacokinetic (PK) and Pharmacodynamic (PD) of Multiple Dose Oral Valspodar (PSC 833), a P-Glycoprotein Antagonist, Poster Presentation, 93rd Annual Meeting of the American Association for Cancer Research, April 6-10, 2002, San Francisco, CA.

15. Lum BL, **Chin DL**, Cho CD, Advani R, Fisher GA, Halsey J, Yuen A, Sikic BI. The Effect of Oral Valspodar (PSC 833), a Modulator of Multidrug Resistance, on the Pharmacokinetics (PK) of Liposomal Doxorubicin, Poster Presentation, The American Society of Clinical Oncology, May 2001, San Francisco, CA.
16. **Chin DL**, Lum BL, Duran GE, Sikic BI. A Rapid and Sensitive HPLC Assay Method for PEGylated (Polyethylene Glycol) Liposomal Doxorubicin by UV Detection, Poster Presentation at The American Association of Cancer Research Annual Meeting, April 2001, New Orleans, LA.

### **EDITORIALS AND LETTERS**

1. **Chin DL**, Bang H, Romano PS. To the editor (response to “Rethinking Thirty-Day Hospital Readmissions: Shorter Intervals Might Be Better Indicators Of Quality Of Care”). *Health Affairs*, February 2017.
2. **Chin DL**, Romano PS. Time to Rethink Our Approach on Hospital Readmissions, CQ Roll Call, October 4, 2016. <http://bit.ly/2eZ9KYJ>

### **LIMITED DISTRIBUTION**

1. **Chin DL**, Weyrich MS, Manickam RN, Cox G, Hill BC, Romano PS. Final Report: An Analysis of Adverse Events Underreporting in Acute Care Hospitals in California, 2016. Report to the California Department of Public Health, Licensing and Certification. url pending.

### **PREVIOUS EMPLOYMENT**

2013-2017      Postdoctoral Scholar; Center for Healthcare Policy and Research  
University of California | Davis | Sacramento CA

### **FUNDING**

#### **RESEARCH GRANTS**

- 2018-2019      Developing Tools to Measure Quality and Equity Across the Health Service Continuum (\$24,405); Department of Health Promotion and Policy, Intramural Faculty Seed Grant | PI: Chin.
- 2012-2013      Electronic Health Records Research Pilot Award (\$20,000)  
Clinical and Translational Science Center (CTSC), UC Davis.  
NIH/NCATS: UL1 TR000002 and linked award TL1 TR000133 | PI: Berglund.

### **FELLOWSHIPS**

- 2013-2015 Postdoctoral Training Fellowship (T32); Quality, Safety, Comparative Effectiveness Training Program (QSCERT)  
Center for Healthcare Policy and Research, UC Davis  
AHRQ Grant: T32 HS022236 | PI: Melnikow.
- 2009-2010 Predoctoral Training Fellowship (T32); Pre-doctoral Clinical Research Training Program (PCRTP), Clinical Translational Science Center  
NIH Grant: TL1 RR024145 | PI: Berglund.

### **HONORS AND AWARDS**

- 2016 Finalist, The National Institute for Health Care Management (NIHCM) Foundation, NIHCM Foundation Research Award; Quantifying Post-Acute Care and Community Factors as Drivers of Hospital Readmission.
- 2016 Clinical Research Forum; Top 10 Clinical Research Achievement Awards; Overdiagnosis of *Clostridium difficile* Infection in the Molecular Test Era.

### **TEACHING**

#### **UMASS SCHOOL OF PUBLIC HEALTH AND HEALTH SCIENCES**

- Data Science Applications for Healthcare Policy & Management Fall 2017  
(HPP 690A | Instructor of Record)
- Comparative Health Care System Spring 2018 – Spring 2020  
(HPP 450 | Instructor of Record)
- Introduction to the US Health Care System Fall 2018 - present  
(HPP 620 | Instructor of Record)

#### **UC DAVIS EXTENSION**

- Applied Healthcare Statistics Fall 2014, Summer 2015  
(HCA 202 | Instructor of Record)

#### **UC DAVIS SCHOOL OF MEDICINE OR PUBLIC HEALTH SCIENCES**

- Doctoring II, Epidemiology Literature Review Summer 2015  
(Discussion section leader)
- Clinical Epidemiology and Study Design Summer 2014  
(Discussion section co-leader)
- Injury Epidemiology Winter 2009, Winter 2010

(Teaching assistant)

### **INVITED LECTURES**

1. Collaborative Research Using EHR to Advance Quality and Outcomes, Veterans Affairs Northern California Healthcare System, Travis Conference Center, Fairfield, CA, Jun 2012.
2. Adverse Event Reporting in California Hospitals, Institute for Healthcare Delivery and Population Science, Springfield, MA, Jan 2018.

### **MENTORING**

#### **GRADUATE AND PROFESSIONAL**

Vishal A Shetty	2017-present   Doctoral advisee, UMass Amherst. Current Position: Doctoral Student and Dean's Fellow, School of Public Health and Health Sciences.
Matthew Gilbert	2020-present   MPH advisee, UMass Amherst Current Position: Masters in Public Health student.
Tess Jurgensen	2020-present   MPH advisee, UMass Amherst. Current Position: Masters in Public Health and Public Policy student.
Irtika Kumari	2018-2020   MPH advisee, UMass Amherst. Current Position: Team lead; Case Investigator, Partners in Health
Olivia Mariano	2018-2020   MPH advisee, UMass Amherst.
Eugene Garland	2017-2018   Doctoral advisee, UMass Amherst. Current Position: Doctoral Student, Health Policy and Promotion.
Alea Moscone	2017- 2019   MPH advisee, UMass Amherst. Current Position: Project Coordinator - Department of Medicine Quality Program at Brigham and Women's Hospital
Sachin Thigale	2017-2018   MPH advisee, UMass Amherst. Current Position: Doctoral Student, Pharmaceutical Science, Northeastern University, Boston.
Raj N Manickam	2014-2017   Masters of Science advisee. UC Davis. Current Position: Analyst, Kaiser Permanente, Oakland.
Habiba Hashimi	2015-2016 (co-mentee w/ David Cooke)   Medical Student Fellowship, UC Davis. Current Position: Surgical Resident, UCSF Fresno.



## **UNDERGRADUATE**

Kate Pecora	2019-present   Undergraduate honors advisee. UMass Amherst. Current Position: Correspondent, Patients Rising.
Jupinder Parmar	2017-present   Undergraduate advisee. Applied Quantum Computing for Healthcare. Current Position: Undergraduate Mathematics, Stanford University.
Rachel Haley	2018-2019   (co-advisee w/ Melody Slashinski) Undergraduate advisee Current Position: Masters in Public Health student, University of Colorado, Boulder.
Kristiana Tadeo	2017-2019   Undergraduate advisee. Current Position: Network manager, Aetna
Samuel Calvert	2017   Edmondson Fellow   Applied Quantum Computing for Healthcare Current Position: Analyst, NULIA.
Parker Goodell	2010   Undergraduate Research Coordinator. Current Position: Orthopedic Surgery Resident, UCSF Fresno

## **PROFESSIONAL AND SOCIETY MEMBERSHIPS**

2013-present      AcademyHealth | Member

## **SERVICE**

### **EDITORIAL (AD-HOC REFEREE)**

2014-present	Medical Care
2015-present	Health Services Research
2016-present	British Medical Journal
2017-present	Journal of the American Medical Association (JAMA)
2019-present	JAMA Network (JAMAOpen)

### **UNIVERSITY SERVICE**

2017-present	Ad Hoc Reviewer, Public Service Endowment Grant   UMass   Amherst MA.
2017-present	Ad Hoc Reviewer, Faculty Research Grant   UMass   Amherst MA.

### **DEPARTMENT SERVICE**

- 2018-present Scholarships and Awards Committee | Dept. of Health Policy and Promotion, UMass Amherst.
- 2018-present Doctoral Admissions Committee | Health Policy and Management | Health Policy and Promotion, UMass Amherst.
- 2018-2019 MPH Practicum Committee | Health Policy and Management | Health Policy and Promotion, UMass Amherst.
- 2017-2018 Faculty Search Committee | Health Policy and Management | Health Policy and Promotion, UMass Amherst.

**PRIOR SUPPORT**

- 2016-2017 Long-term Outcomes After Combat Trauma (PI: Stewart)  
U.S. Air Force School of Aerospace Medicine; Oak Ridge Institute for Science and Education.
- 2016-present The National Impact of Public Reporting of CABG Outcomes, California Coronary Artery Bypass Graft Outcomes Reporting Program (PI: Sadeghi)  
Office of Statewide Health Planning and Development.
- 2015-2016 Center for Health Quality and Innovation (PI: Romano)  
UC Office of the President
- 2015-2016 Medical Failure to Rescue, R01 HS023560 (PI: Silber)  
Agency for Healthcare Quality and Research
- 2011-2015 Adverse Events Reporting, Agreement 10-10251 (PI: Romano)  
California Department of Public Health
- 2010-2014 Athena Breast Health Network (PI: Esserman; UCD PI: Borowski)  
Safeway Foundation Award and UC Office of the President
- 2013 Dean's Office Jumpstart Fund (PI: Nuovo)  
Intramural Award from Family and Community Medicine
- 2011-2012 AB 131 Nurse-to-Patient Ratios, Agreement 09-11543 (PI: Romano)  
California Department of Public Health