

Caroline Avery Thompson, PhD, MPH
San Diego State University Graduate School of Public Health
5500 Campanile Drive, San Diego, CA 92182-4162
caroline.thompson@sdsu.edu

RESEARCH INTERESTS

I am a cancer epidemiologist and epidemiology methodologist, and I obtained postdoctoral training in the area of health care delivery systems science. My research interests include ethnic and other disparities in cancer screening, pathways of cancer-related care in the health care delivery system, and patterns of cancer-related mortality understood through geographic and social contexts. To carry out my research, I primarily use “real world” health data such as the national death index, statewide cancer registries, and electronic health records (EHR) from large academic and community health care delivery systems. Tangentially, I also develop and evaluate quantitative methods to support statistical and causal inference from EHR and other “big” routine clinical data sources.

EDUCATION

2013 Ph.D. in Epidemiology, University of California, Los Angeles, CA
2010 Master of Public Health, University of California, Los Angeles, CA
1999 B.A. in Biology, University of North Carolina, Chapel Hill, NC

ACADEMIC APPOINTMENTS

2015 – Assistant Professor (TT), Graduate School of Public Health (GSPH), San Diego State University, CA
2014 – 2015 Assistant Research Epidemiologist, Palo Alto Medical Foundation Research Institute, Palo Alto, CA
2013 – 2014 Instructor, University of California Santa Cruz, Extension Program in Biosciences, Santa Clara, CA
2013 – 2014 Postdoctoral Fellow, Palo Alto Medical Foundation Research Institute, Palo Alto, CA

AFFILIATIONS & MEMBERSHIPS

2016 – Fellow, Clinical & Translational Research Institute, University of California, San Diego, CA
2016 – Associate Member, Moores Cancer Center, University of California, San Diego, CA
2015 – Member, Clinical & Translational Research Institute, University of California, San Diego, CA
2015 – Consulting Investigator, Palo Alto Medical Foundation Research Institute, Palo Alto, CA

ACTIVE RESEARCH FUNDING

2016 – 2019 NIH, National Cancer Institute (1R01CA204070-01)
Lung cancer in never smokers: incidence, risk factors and molecular characteristics in Asian American, Native Hawaiian, and Pacific Islander (AANHPI) Women
The goal of this project is to document incidence and risk factors for lung cancer by smoking status, among AANHPIs, focusing especially on female never smokers.
Role: **Subcontract PI**

2016 (5 mos) NIH, National Cancer Institute (Pilot study funds via 2U54CA132384-06A1)
Visualizing socioeconomic and racial disparities in the burden of screening detectable cancers
For this pilot project, we will develop a web-enabled mapping tool using GIS technology combined with California Cancer Registry data, US census and waves of the American Community Survey describing sub-regional areas by contextual factors and detailed metropolitan and regional geography.
Role: **Principal Investigator**

- 2016 – 2019 NIH, National Center for Advancing Translational Sciences (1KL2TR001444)
Using Electronic Health Records to Understand Pathways of Breast Cancer Screening and Care
 This project is designed to examine how appropriate use of informatics methods and in-depth knowledge of health care delivery can allow electronic health record data to expand our understanding of the pathway from screening to cancer diagnosis, and why patients choose certain treatments.
 Role: **Principal Investigator**
- 2015 – 2016 NIH, National Cancer Institute (HHSN261201300005I/HHSN26100009)
Evaluating Feasibility of and Potential Biases in Supplementing Cancer Registry Data Using External Sources
 This study will evaluate the feasibility of supplementing specific selected cancer registry variables (race/ethnicity, birthplace, treatment, tumor biomarkers) with data from 3 defined sources: 1) patient interview research studies, 2) POC, and 3) electronic health records (EHR) data
 Role: **Subcontract PI**

SELECTED PEER REVIEWED JOURNAL ARTICLES (27 TOTAL)

- In Press.** Thompson CA, Gomez SL, Hastings KG, Kappahn K, Yu P, Shariff-Marco S, Bhatt A, Wakelee H, Patel M, Cullen MR, Palaniappan LP. The burden of cancer among Asian Americans: a report of national mortality trends by Asian ethnicity. *Cancer Epidemiology, Biomarkers and Prevention*.
- 2016.** Afghahi A*, Mathur M*, **Thompson CA**, Mitani A, Rigdon J, Desai M, Yu PP, de Bruin MA, Seto T, Olson C, Kenkare P, Gomez SL, Das AK, Luft HS, Sledge G, Sing AP, Kurian AW. Use of Gene Expression Profiling and Chemotherapy in Early-Stage Breast Cancer: A Study of Linked Electronic Medical Record, Cancer Registry and Genomic Data across Two Health care Systems. *Journal of Oncology Practice*, Jun;12(6):e679-709.
- 2015.** Chan JK, Gardner AB, Taylor K, Blansit K, **Thompson CA**, Brooks R, Yu X, Kapp DS. The centralization of robotic surgery in high-volume centers for endometrial cancer patients--a study of 6560 cases in the U.S. *Gynecologic Oncology*, Jul;138(1):128-32.
- 2015.** **Thompson CA**, Kurian AW, Luft HS. Linking electronic health records to better understand breast cancer patient pathways within and between two health systems. *eGEMs*, Mar 4;3(1):1127.
- 2015.** Groene O, Arah OA, Klazinga NS, Wagner C, Bartels PD, Kristensen S, Saillour F, Thompson A, **Thompson CA**, Pfaff H, DerSarkissian M, Suñol R. Patient Experience Shows Little Relationship with Hospital Quality Management Strategies. *PLoS One*, Jul 7;10(7):e0131805.
- 2014.** **Thompson CA**, Gomez SL, Chan A, Chan JK, McClellan SR, Chung S, Olson C, Nimbale V, Palaniappan LP. Patient and provider characteristics associated with colorectal, breast, and cervical cancer screening among Asian Americans. *Cancer Epidemiology, Biomarkers and Prevention*, Nov;23(11):2208-17.
- 2014.** **Thompson CA**, Arah OA. Selection bias modeling using observed data augmented with imputed record-level probabilities. *Annals of Epidemiology*, Oct;24(10):747-53.
- 2013.** **Thompson CA**, Zhang ZF, Arah OA. Competing risk bias to explain the inverse relationship between smoking and malignant melanoma. *European Journal of Epidemiology*, Jul;28(7):557-67.
- 2012.** **Thompson CA**, Waldhör T, Schernhammer ES, Hackl M, Vutuc C, Haidinger G. Smoking and lung cancer: current trends in Austria. *Wiener klinische Wochenschrift*, Aug;124(15-16):493-9.
- 2011.** Schernhammer ES, **Thompson CA**. Light at night and health: the perils of rotating shift work. *Occupational and Environmental Medicine*, May;68(5):310-1.