BIOGRAPHICAL SKETCH

NAME: Thompson, Caroline Avery

EDUCATION/TRAINING

| INSTITUTION AND LOCATION | DEGREE  (if applicable) | Completion Date  MM/YYYY | FIELD OF STUDY |
| --- | --- | --- | --- |
| University of North Carolina, Chapel Hill, NC | B.A. | 1995-1999 | Biology |
| University of California, Los Angeles, CA | M.P.H. | 2008-2010 | Public Health |
| University of California, Los Angeles, CA | Ph.D. | 2010-2013 | Epidemiology |
| Palo Alto Medical Foundation Research Institute  Palo Alto, CA | Fellowship | 2013-2014 | Delivery System Science |

# A. Personal Statement

I am Assistant Research Epidemiologist at Palo Alto Medical Foundation Research Institute (PAMFRI) transitioning to a faculty position (Assistant Professor of Epidemiology, tenure line) at San Diego State University (SDSU) in the Fall of 2015. My role with PAMFRI will continue as Consulting Investigator, an affiliation which will allow me continued ability to write proposals and serve as Principal Investigator on PAMFRI studies. I have dual training as a cancer epidemiologist and epidemiology methodologist and I completed a post-doctoral fellowship in healthcare delivery system science. My primary area of interest is the development and application of methods for the use of routine clinical data (e.g., electronic health records) linked with contextual data and other research resources to enhance the understanding of population health, with an emphasis on rigorous study design and bias analysis to use the available data appropriately to answer specific questions. I have carried out the majority of this work to date in the areas of cancer epidemiology, health disparities, and hospital quality systems. Thanks to a diverse background that includes a long career as a clinical data manager, a PhD focusing on both cancer epidemiology and advanced epidemiology methodology, and a fellowship in healthcare delivery system science, I have a unique set of data- and methods-oriented quantitative skills including previous experience with data pooling and harmonization, experience analyzing EHR data for cancer outcomes, and training in the development and application of methods for addressing unmeasured confounding, a critical problem when conducting research in the “big data” EHR environment. Use of quantitative bias analysis in EHR research is not yet common, but as these data begin to be used more extensively for research, such undertakings will be critical to producing defensible results for peer review and reporting to the larger academic and medical communities.

# B. Positions and Honors

## Positions and Employment

2000-2001 Clinical Data Assistant, Quintiles Transnational, Research Triangle Park, NC

2001-2002 Clinical Data Manager, PAREXEL, Research Triangle Park, NC

2002-2004 Clinical Data Manager, Chugai Pharma USA, San Diego, CA

2004-2006 Clinical Data Manager, Pfizer, San Diego CA

2006-2008 Consultant in Clinical Data Management, San Francisco Bay Area, CA

2009-2010 Graduate Student Researcher in Epidemiology, UC Los Angeles, CA

2010 (2 mos) Research Intern in Cancer Epidemiology, Medical University of Vienna, Vienna, Austria

2010-2013 Pre-doctoral Fellow (NCI T32) in Cancer Epidemiology, UC Los Angeles, CA

2013-2014 AcademyHealth Delivery System Science Postdoctoral Fellow, PAMFRI, Palo Alto, CA

2014-*8/2015* Lecturer in Clinical Statistics, Extension program in Biosciences, UC Santa Cruz, CA

2014-*8/2015* Assistant Research Epidemiologist, PAMFRI, Palo Alto, CA

*8/2015-* Consulting Investigator, PAMFRI, Palo Alto, CA

*8/2015-* Assistant Professor of Epidemiology, San Diego State University, San Diego, CA

## Honors

2013 Dean’s Outstanding Graduating Student Award, UCLA Fielding School of Public Health

2013 Delta Omega Honorary Society in Public Health, Iota Chapter

2013 Delivery System Science Fellowship, AcademyHealth

# C. Selected Publications (10 of 20 total)

1. **Thompson CA**, Waldhör T, Schenhammer ES, Hackl M, Vutuc C, Haidinger G. Smoking and lung cancer: current trends in Austria. *Wiener klinische Wochenschrift*, 124(15-16): 493-499, 2012.
2. **Thompson CA**, Zhang ZF, Arah OA. Competing risk bias to explain the inverse relationship between smoking and malignant melanoma. *European Journal of Epidemiology*; 28(7): 557-567, 2013.
3. Hammer A, Arah OA, DerSarkissian M, **Thompson CA**, Mannion R, Wagner C, Ommen O, Sunol R, Pfaff H. The relationship between social capital and quality management systems in European hospitals: a quantitative study. *PLoS ONE*, 8(12); e85662, 2013.
4. Groene O, Kristensen S, Arah OA, **Thompson CA,** Bartels P, Sunol R, Klazinga NS. Feasibility of using routine data to compare hospital performance in the EU. International Journal for Quality in Health Care. *International Journal for Quality in Health Care*, 26(Suppl. 1):108-115, 2014.
5. **Thompson CA,** Arah OA. Selection bias adjustment using observed data augmented and weighted with imputed record-level selection probability. *Annals of Epidemiology*, 24(747-753), 2014.
6. **Thompson CA,** Gomez S, Chan JK, Chan A, Chung, S, McClellan S, Olson C, Nimbal V, Palaniappan LP. Routine cancer screening compliance in a diverse Asian American Population. *Cancer Epidemiology Biomarkers and Prevention*, 11(2208-17), 2014.
7. **Thompson CA**, Kurian AW, Luft HS. Linking Electronic Health Records to Better Understand Breast Cancer Patient Pathways Within and Between Two Health Systems. *eGEMs (Generating Evidence & Methods to improve patient outcomes)*: Vol. 3: Iss. 1, Article 5, 2015.
8. Hastings KG, Jose PO, Frank AT, Kapphahn K, Goldstein BA, **Thompson CA**, Eggleston K, Cullen, M, Palaniappan L. Leading causes of death among Asian American subgroups (2003-2011). (In press, PLoS One)
9. 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 6,560 cases in the US. (In press, Gynecologic Oncology).
10. Groene O, Arah OA, Klazinga N, Wagner W, Bartels P, Kristensen S, Saillour F, Thompson A, **Thompson CA,** Pfaff H, DerSarkissian M, Sunol M. Patient experience shows little relationship with hospital quality management strategies. (In press, PLoS One)

## Complete List of Published Work in MyBibliography: <http://www.ncbi.nlm.nih.gov/sites/myncbi/collections/bibliography/43513963/>

# D. Research Support

## Ongoing Research Support

2012 – 2016 Funding: Richard & Susan Levy Family Trust

Title: Oncohsare: Improving Outcomes for Breast Cancer Patients: A PAMF-Stanford Research Collaboration

Role: Co-Investigator (PIs: Harold S. Luft, PAMFRI; Allison Kurian, Stanford)

2012 – 2016 Funding: NIH, National Institute on Minority Health and Health Disparities, 5R01MD007012

Title: CAUSES: Causes of Asian American mortality Understood by Socio-Economic Status

Role: Consultant (Mark Cullen, MD; Latha Palaniappan, MD, Stanford University):

## Completed Research Support

2009 – 2013 Funding: European Commission 7th Framework Program (EU CORDIS FP7)

Title: Deepening Our Understanding of Quality Improvement in European Hospitals (DUQuE)

Role: Research Fellow/Trainee (PI: Onyebuchi A. Arah, UCLA)

**Submitted Research Support**

2016 – 2019 Funding: PCORI (Methods grant)

Title: Getting the Best out of Patient-Reported Experience Measures

Role: Co-Investigator (PI: Sukyung Chung, PAMFRI)

2016 – 2019 Funding: NIH, National Cancer Institute (R01)

Title: Lung cancer in never smokers: incidence, risk factors and molecular characteristics in Asian American, Native Hawaiian, and Pacific Islander Women

Role: Co-Investigator (PIs: Scarlett Gomez; Iona Cheng, Cancer Prevention Institute of California)