# **BIOGRAPHICAL SKETCH**

### NAME: Mroz, Tracy Mitchell

### eRA COMMONS USER NAME (credential, e.g., agency login): TMROZ1

### POSITION TITLE: Associate Professor

### EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Princeton University, Princeton, NJ	BA	06/1999	Classics
Boston University, Boston, MA	MS	05/2005	Occupational Therapy
Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD	PhD	05/2013	Health Services Research and Policy
Group Health Research Institute, Seattle WA	Postdoctoral Fellowship	08/2014	Delivery System Science

## A. Personal Statement

I am an Associate Professor in the Department of Rehabilitation Medicine at the University of Washington (UW) and an affiliate in the Health of People and Populations Core of the UW Center for Studies in Demography and Ecology (CSDE) who will be serving as a Multi-PI for the proposed project, *"Leveraging data to measure risk factors affecting post-acute care access and outcomes among patients within and outside of care networks"* along with Multi-PIs Rachel Prusynski, DPT, PhD, and Thuan Ong, MD. The proposed project will establish proof-of-concept for integration of Medicare administrative data with UW Medicine electronic health records in order to acquire comprehensive data on clinical, social, behavioral, environmental, and community factors that may influence access to post-acute care and subsequent patient outcomes for patients discharging from acute care hospitals. My research expertise and clinical background make me well-suited to contribute to this project as a Multi-PI.

I am an occupational therapist and a health services researcher with methodological expertise in analysis of large administrative data sets and strong content knowledge regarding post-acute care services and policy. It was my clinical experience working within the fragmented healthcare system and witnessing the barriers patients face in accessing high quality, patient-centered care that motivated me to become a health services researcher. My research, funded by HRSA, NIH, AHRQ, and NIDILRR, focuses on the impact of health policy and delivery systems on access to and quality of post-acute care services for older adults and adults with disabilities with an emphasis care provided in rural communities. My primary research approach is secondary analysis of large linked data sets, including beneficiary-level claims and assessment data and publicly available provider-level data (e.g., Medicare Care Compare, Post-Acute Care Public Use File, Provider of Services File, Payroll-Based Journal). I am currently co-leading an NIA R01 on the impact of payment policy changes and the COVID-19 pandemic on access to post-acute care, including skilled nursing facilities and home health agencies, which is highly relevant to the proposed project. My clinical background as an occupational therapist with experience working in both acute care and skilled nursing facility-level care also allows me to provide a clinical perspective regarding the discharge planning process to post-acute care.

Ongoing and recently completed projects that I would like to highlight include:

R01 AG065371 Leland, Mroz (Multiple PI) 01/15/2021 – 12/31/2024 The impact of post acute care payment changes on access and outcomes

U81HP27844

Frogner (PI), Role: Co-Investigator 09/01/2017-08/31/2027 Cooperative Agreement for a Regional Center for Health Workforce Studies – Allied Health Professions

U1CRH03712 Patterson (PI); Role: Co-Investigator 09/01/2020-08/31/2024 Cooperative Agreement for a Regional Center on Rural Health - WWAMI Rural Health Research Center

Citations:

- 1. **Mroz TM**, Patterson DG, Frogner BK. (2020). The impact of Medicare's rural add-on payments on supply of home health agencies serving rural counties. *Health Aff (Millwood)*. 39(6):949-957. doi: 10.1377/hlthaff.2019.00952.
- Mroz TM, Dahal A, Prusynski R, Skillman SM, Frogner BK. (2021). Variation in employment of therapy assistants in skilled nursing facilities based on organizational factors. *Med Care Res Rev.* 78(1S):40S-46S. doi: 10.1177.1077558720952570.
- Prusynski RA, Humbert A, Leland NE, Frogner BK, Saliba D, Mroz TM. (2022). Dual impacts of Medicare payment reform and the COVID-19 pandemic on therapy staffing in skilled nursing facilities. J Am Geriatr Soc. 2023 Feb;71(2):609-619. doi: 10.1111/jgs.18208.
- 4. Prusynski RA, Humbert A, **Mroz TM**. Skilled nursing facility changes in ownership and short-stay Medicare patient outcomes. *JAMA Network Open*. 2023;6(9):e2334551. doi:10.1001/jamanetworkopen.2023.34551

# B. Positions, Scientific Appointment, and Honors

# Positions and Scientific Appointments

2023-present Adjunct Associate Professor, Department of Health Systems & Population Health, School of Public Health, University of Washington

- 2020-present Associate Professor, Division of Occupational Therapy, Department of Rehabilitation Medicine, University of Washington
- 2018-present Research Affiliate- Health of People and Populations Core, Center for Studies of Demography and Ecology, University of Washington
- 2017-present Steering Committee, Post-Acute Care Transformation, UW Medicine
- 2015-2020 Advisory Committee, Long-term Services and Supports Interest Group, AcademyHealth (2017-2018: Fundraising Chair, 2018-2019: Vice Chair/Chair Elect, 2019-2020: Chair)
- 2015-present Special Advisor on Quality, American Occupational Therapy Association
- 2014-present Affiliate Investigator, Kaiser Permanente Washington Health Research Institute (formerly Group Health Research Institute)
- 2014-2015 Visiting Scholar, Center for Rehabilitation Research Using Large Datasets, University of Texas Medical Branch
- 2014-2020 Assistant Professor, Division of Occupational Therapy, Department of Rehabilitation Medicine, University of Washington
- 2013-2014 Postdoctoral Fellow, Group Health Research Institute
- 2010-2013 Sr Data Analyst/Project Mgr, Lipitz Center for Integrated Health Care, Johns Hopkins University
- 2009-2012 Research Assistant, Center for Injury Research and Policy, Johns Hopkins University
- 2007-2008 Occupational Therapist, St. Luke's University Health Network, Bethlehem and Allentown Campuses, PA
- 2006-2007 Health Management Coach, Wellness Coaches USA, Blue Bell, PA
- 2005-2008 Occupational Therapist, Lehigh Valley Hospital and Health System, Allentown, PA

# Honors and Awards

- 2023 Roster of Fellows Award, American Occupational Therapy Association
- 2022 Excellence in Mentoring Women Faculty Award, University of Washington School of Medicine
- 2018 Roster of Merit Award, Washington Occupational Therapy Association
- 2015-2022 American Occupational Therapy Association Service Commendation, Quality Advisor

- 2014 AcademyHealth Long-Term Services and Supports Abstract Award
- 2011 Marilyn Bergner Award in Health Services Research, Johns Hopkins University
- 2010 Pearl and Jeremiah German Scholarship in Gerontology, Johns Hopkins University
- 2009 Honors Pass, Departmental Qualifying Exam, Johns Hopkins University
- 1998Stanley J. Seeger Fellowship, Princeton University

## **Board Certification and Licensure**

- 2013-present State of Washington, Occupational Therapist License #OT60436195
- 2005-2013 Commonwealth of Pennsylvania, Occupational Therapist License #OC009819 (inactive in good standing)
- 2005-present National Board for Certification in Occupational Therapy, Occupational Therapist Registered, Certification #1075717

# **C.** Contributions to Science

- 1. <u>Skilled Nursing Facility Workforce, Organizational Characteristics, Service Provision, and Outcomes</u>: I have led and participated in multiple studies related to the workforce in skilled nursing facilities, service provision and quality outcomes for patients. I led a HRSA-funded study on employment of physical and occupational therapy assistants versus physical and occupational therapists in skilled nursing facilities and mentored a pre-doctoral trainee on a related study on the relationship between therapy assistant staffing and patient quality outcomes. I also served as senior author on a study examining the association between skilled nursing facility organizational characteristics and financially motivated therapy related to payment system thresholds and a study analyzing the relationship between organizational characteristics and changes in ownership in skilled nursing facilities and whether those changes impacted quality outcomes for short-stay Medicare beneficiaries. Related publications include:
  - a. **Mroz TM**, Dahal A, Prusynski R, Skillman SM, Frogner BK. (2021). Variation in employment of therapy assistants in skilled nursing facilities based on organizational factors. *Med Care Res Rev.* 78(1\_suppl), 40S–46S. doi: 10.1177/1077558720952570
  - b. Prusynski RA, Frogner BK, Skillman SM, Dahal A, Mroz TM. (2022). Therapy assistant staffing and patient quality outcomes in skilled nursing facilities. *J Appl Gerontol.* 41(2), 352–362. doi: 10.1177/07334648211033417
  - c. Prusynski RA, Frogner BK, Dahal AD, Skillman SM, **Mroz TM**. (2020). Skilled nursing facility characteristics associated with financially motivated therapy and relation to quality. *JAMDA*. 21(12), 1944–1950.e3. doi: 10.1016/j.jamda.2020.04.008
  - d. Prusynski RA, Humbert A, Mroz TM. Skilled nursing facility changes in ownership and short-stay Medicare patient outcomes. JAMA Network Open. 2023;6(9):e2334551. doi:10.1001/jamanetworkopen.2023.34551
- 2. <u>Impact of Payment Policy on Post-Acute Care</u>: I have led and participated in multiple studies examining the relationship between payment policy changes and post-acute care providers. I led an AHRQ-funded R03 on the impact of varying rural add-on payment for home health agencies for serving rural beneficiaries on the supply of home health agencies serving rural communities and contributed to an AHRQ-funded dissertation grant in this area as a mentor. I am currently co-leading an NIA-funded R01 in which we have published an analysis of public data on staffing changes in skilled nursing facilities following the implementation of the Patient Driven Payment Model in 2019. I have also mentored a NIDILRR-funded postdoctoral fellow on a research project examining the initial effects of the implementation of the home health value-based purchasing demonstration on quality of care and patient experience star ratings for home health agencies in participating states versus non-participating states. Related publications include:
  - a. **Mroz TM**, Patterson DG, Frogner BK. (2020). The impact of Medicare's rural add-on payments on supply of home health agencies serving rural counties. *Health Aff (Millwood)*. 39(6):949-957. doi: 10.1377/hlthaff.2019.00952.
  - b. Loomer L, Rahman M, **Mroz TM**, Gozalo PL, Mor V. (2020). Do higher payments increase access to post-acute home health care for rural Medicare beneficiaries? *J Am Geriatr Soc*. 68(3):663-664. doi: 10.1111/jgs.16332.

- c. Prusynski RA, Leland N, Frogner B, Leibbrand C, **Mroz T** (2021). Therapy staffing declined in skilled nursing facilities after implementation of the Patient Driven Payment Model. *JAMDA*. 22(10):2201-2206. doi: 10.1016/j.jamda.2021.04.005
- d. Teshale SM, Schwartz ML, Thomas KS, Mroz TM. (2020). Early effects of home health valuebased purchasing on quality star ratings. *Med Care Res Rev.* 78(6):747-757. doi: 10.1177/1077558720952298.
- 3. <u>Quality Outcomes for Medicare Beneficiaries Receiving Home Health and Rehabilitation Services</u>: I have used Medicare administrative data and the National Health and Aging Trends Survey (NHATS) to increase the evidence base on provider factors (e.g., profit status, therapy staffing model, volume) related to provision of rehabilitation services, client factors (e.g., sociodemographic, diagnostic/clinical, functional, cognitive, living situation, caregiver availability) associated with rehabilitation services utilization, and the relationship between rehabilitation services utilization and patient outcomes (e.g., community discharge, readmissions, change in functional status, patient-reported goal attainment). I assisted in mentorship of a pre-doctoral trainee on a study examining differences in publicly-reported quality of care and patient experience star ratings for home health agencies. I have also contributed to study on differences in quality of home health agencies serving Medicare fee-for-service versus Medicare Advantage beneficiaries. Related publications include:
  - a. **Mroz TM**, Meadow A, Colantuoni E, Leff B, Wolff JL. (2018). Home health agency characteristics and quality outcomes for Medicare beneficiaries with rehabilitation-sensitive conditions. *Archives Phys Med Rehabil*, 99(6):1090-1098. doi: 10.1016/j.apmr.2017.08.483.
  - b. Gell NM, **Mroz TM**, Patel KV. (2017). Rehabilitation services use and patient reported outcomes among older adults in the United States. *Arch Phys Med Rehabil*, 98(1):2221-2227. doi: 10.1016/j.apmr.2017.02.027.
  - c. Schwartz ML, Kosar CM, **Mroz TM**, Kumar A, Rahman M. (2019). Quality of home health agencies serving traditional Medicare versus Medicare Advantage beneficiaries. *JAMA Network Open*, 2(9):e1910622. doi: 10.1001/jamanetworkopen.2019.10622.
  - d. Schartz ML, **Mroz TM**, Thomas KS. (2021). Are patient experience and outcomes for home health agencies related? *Med Care Res Rev.* 78(6):798-805. doi: 10.1177/1077558720968365.
- 4. <u>Home Health Care for Marginalized Populations</u>: As a co-investigator at the HRSA-funded WWAMI Rural Health Research Center at the University of Washington, I am leading several studies on access to and quality of home health care for rural Medicare beneficiaries. Findings suggest home health agencies serving rural communities face multiple challenges to providing care; region is a stronger driver of variation in home health care service provision as compared to level of rurality and other community factors; beneficiaries who are admitted to home health following an acute hospitalization have significantly different sociodemographic and clinical profiles compared to beneficiaries who are admitted to home health form the community; and there are differences in patient experience star ratings for rural-serving urban home health agencies. Related publications include:
  - a. **Mroz TM**, Garberson LA, Wong JL, Andrilla CHA, Skillman SM, Patterson DG, Larson EH. *Variation in the Use of Home Health Care among Fee-for-Service Medicare Beneficiaries by Rural-Urban Status and Geographic Region: Assessing the Potential for Unmet Need.* Policy Brief. WWAMI Rural Health Research Center, University of Washington, Feb 2020.
  - b. **Mroz TM**, Andrilla CHA, Garberson LA, Škillman SM, Patterson DG, Larson EH. (2018). Service provision and quality outcomes for high-risk rural Medicare beneficiaries receiving home health care. *Home Health Care Serv Q*, 37(3):141-157. doi: 10.1080/01621424.2018.1486766.
  - c. **Mroz TM**, Garberson LA, Andrilla CHA, Patterson DG. *Quality of Home Health Agencies Serving Rural Medicare Beneficiaries*. Policy Brief. WWAMI Rural Health Research Center, University of Washington, Jan 2022.
  - Burgdorf JG, Mroz TM, Wolff JL. (2020). Social vulnerability and medical complexity among Medicare beneficiaries receiving home health without prior hospitalization. *Innov Aging*. 4(6):igaa049. doi: 10.1093/geroni/igaa049.

- 5. <u>Care Delivery and Outcomes for Individuals with Complex Health Needs</u>: I have mentored doctoral students and postdoctoral fellows on studies using survey data to examine healthcare needs, access, and outcomes for individuals living with long-term physical disabilities and communication disorders. I have contributed to a policy analysis of the potential for occupational therapy to show value in the healthcare of individuals with multiple chronic conditions in the rapidly changing reimbursement environment. I worked as a senior data analyst for the AHRQ-funded (R03HS18256) evaluation of the longer-term outcomes of the cluster-RCT trial of Guided Care, a model of chronic care designed to improve quality of life for older adults with complex health care needs and increase efficiency of care delivery. Related publications include:
  - a. Wong JL, Alschuler KN, **Mroz TM**, Hreha KP, Molton I. (2019). Identification of targets for improving access to care in persons with long-term physical disabilities. *Disabil Health J*, 12(3):366-374. doi: 10.1016/j.dhjo.2019.01.002.
  - Baylor C, Brown C, Mroz TM, Burns M. (2022). Understanding how older adults with communication difficulties access health services: What we can learn from the National Health and Aging Trends Study (NHATS). Semin Speech Lang, 43(3):176-197. doi: 10.1055/s-0042-1749618. Epub 2022 Jul 20. PMID: 35858604.
  - c. Leland NE, Fogelberg D, Halle AD, **Mroz TM**. (2017). Health policy perspectives—Occupational therapy and management of multiple chronic conditions in the context of health care reform. *Am J Occup Ther*, 71(1):1-6. doi: 10.5014/ajot.2017.711001.
  - d. Boult C, Reider L, Leff B, Frick K, Boyd CM, Wolff JL, Frey K, Karm L, Wegener ST, Mroz T, Scharfstein DO. (2011). The Effect of Guided Care Teams on the Use of Health Services: Results from a Cluster-Randomized Controlled Trial. Arch Intern Med, 171(5), 460-6. doi: 10.1001/archinternmed.2010.540.

## Complete List of Published Work in MyBibliography:

http://www.ncbi.nlm.nih.gov/sites/myncbi/1nqgy8fbD3GQi/bibliography/45772727/public/

### **BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.** 

NAME: Prusynski, Rachel Ann

#### eRA COMMONS USER NAME (credential, e.g., agency login): rachelp1

#### POSITION TITLE: Assistant Professor

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Start Date MM/YYYY	Completion Date MM/YYYY	FIELD OF STUDY
University of Portland, Portland OR	B.S.	08/2005	05/2009	Life Science
University of Portland, Portland OR	B.A.	08/2005	05/2009	Spanish
University of Puget Sound, Tacoma WA	DPT	08/2009	05/2012	Physical Therapy
University of Washington, Seattle WA	PhD	09/2018	06/2022	Rehabilitation Science

#### A. Personal Statement

I am an Assistant Professor in the Department of Rehabilitation Medicine at the University of Washington (UW) and an affiliate of the UW Center for Studies in Demography and Ecology (CSDE). As a physical therapist with clinical experience in acute care and post-acute settings and a health services researcher with expertise in studying the impacts of policy and practice on care delivery and outcomes in post-acute care. I am well-suited to contribute to this Population Health Initiative Tier 2 proposal which will establish proof-of-concept for integrating Medicare administrative data with UW Medicine hospital medical records to more comprehensively examine differences in patients served by the UW Post-Acute Care (PAC) Network, with the ultimate goal of evaluating how the PAC Network impacts patient outcomes.

As a physical therapist with over twelve years of clinical experience across the care continuum in acute inpatient hospital, skilled nursing facilities (SNFs), and community programs, I have experienced firsthand the myriad systemic challenges impacting access to care, including discharges from hospitals to post-acute providers. Encountering these systemic barriers led to my interest in becoming a health services researcher to better understand complex relationships that lead to fragmented or low-quality care and negatively impact patient outcomes.

My PhD training emphasized Medicare policy impacting SNF operations and my didactic coursework emphasized epidemiologic and biostatistical methods for analyzing large Medicare datasets. I currently serve as co-investigator on an NIA R01 [R01 AG065371] examining the impacts of Medicare payment policy changes on post-acute care access, care delivery, and outcomes. Through this grant, I have experience cleaning and managing Medicare administrative data that is stored in the UW Data Collaborative, run by CSDE.

I have published multiple studies examining SNF staffing practices that impact access to care and patient outcomes. I have also leveraged my large data management and quantitative biostatistics skills to publish multiple manuscripts focusing on financially motivated therapy and SNF changes in ownership, therapy volume, and therapy staffing and patient outcomes in SNFs. My research has been supported by the Foundation for Physical Therapy Research, the American Physical Therapy Association, the UW Institute for Translational Health Science, the UW CLEAR Center for Musculoskeletal Disorders, the Learning Health Systems Rehabilitation Research Network, The Health Resources and Services Administration through the UW Center for Health Workforce Studies, and the State of Washington Long Term Care Workforce Board.

Ongoing and recently completed projects that I would like to highlight include:

U81HP27844 Frogner (PI), Role: Project Lead

01/03/2023 - 12/31/2024

Cooperative Agreement for a Regional Center for Health Workforce Studies – Allied Health Professions Projects: Staffing of allied health professionals in skilled nursing facilities, Impact of skilled nursing facility change of ownership on staffing.

R01 AG065371 Multiple PIs: Leland, Mroz, Role: Co-Investigator (current), Graduate Research Assistant (prior) 01/15/2021 - 12/31/2024 The impact of post-acute care payment changes on access and outcomes

Learning Health Systems Rehabilitation Research Network (LeaRRn): Learning Health Systems Scholar: No Award Number Prusynski (PI) 01/01/2023 - 12/31/2023 Differences in home health services and outcomes between Traditional Medicare and Medicare Advantage

American Physical Therapy Association (APTA) Health Policy & Administration Research Grant: No Award Number Prusynski (PI) 05/01/2021 - 04/30/2023 Physical therapy processes and outcomes in skilled nursing facilities in the context of shifting policy

Citations:

- 1. **Prusynski RA.** Medicare Payment Policy in Skilled Nursing Facilities: Lessons from a History of Mixed Success. (2021). *The Journal of the American Geriatrics Society.* DOI: 10.1111/jgs.17490
- Prusynski RA, Gustavson AM, Shrivastav SR, Mroz TM. Rehabilitation Intensity and Patient Outcomes in Skilled Nursing Facilities in the United States: A Systematic Review. *PTJ: Journal of Physical Therapy & Rehabilitation*. 2021 Mar 3;101(3):pzaa230. doi: 10.1093/ptj/pzaa230. PMID: 33388761.
- 3. **Prusynski RA**, Humbert A, Mroz TM. Skilled Nursing Facility Changes in Ownership and Short-Stay Medicare Patient Outcomes. *JAMA Network Open.* 2023;6(9):e2334551. doi:10.1001/jamanetworkopen.2023.34551
- 4. **Prusynski RA,** Humbert, A Leland N, Frogner B, Saliba D, Mroz T (2022). Dual impacts of Medicare payment reform and the COVID-19 pandemic on therapy staffing in Skilled Nursing Facilities. *The Journal of the American Geriatrics Society.* DOI: 10.1111/jgs.18208.

# **B.** Positions, Scientific Appointments and Honors

# **Employment & Scientific Appointments**

2023-Present	Adjunct Assistant Professor, University of Washington Department of Health Systems & Population Health
2023-Present	Research Affiliate, University of Washington Center for Studies in Demography & Ecology
2023-Present	Faculty Affiliate, University of Washington Center for Health Workforce Studies
2022-Present	Assistant Professor, University of Washington Department of Rehabilitation Medicine
2021-2022	TL1 Trainee, University of Washington Institute for Translational Health Science
2021-2022	Adjunct Assistant Professor, Developing Doctor of Physical Therapy Program, Pacific
	Northwest University
2019-2021	Teaching Associate, University of Washington Department of Rehabilitation Medicine
2018-2022	Research Associate, University of Washington Department of Rehabilitation Medicine,
2018	Adjunct Faculty, University of Puget Sound Doctor of Physical Therapy Program
2018-2019	Physical Therapist, Infinity Rehabilitation (Skilled Nursing), Seattle WA
2017-2022	Physical Therapist, Providence Elderplace, Seattle WA
2012-2017	Physical Therapist & Internship Coordinator, Virginia Mason Hospital, Seattle WA
2012	Physical Therapist, Kindred Hospital, Seattle WA

# Volunteer and Elected Positions

2023 2023-2026 2022-2025 2021-2024 2020-Present 2018-Present 2019-2021 2018-2022 2014-2017	Value of Physical Therapy Taskforce, American Physical Therapy Association Associate Editor for Social Media, <i>PTJ: Physical Therapy &amp; Rehabilitation Journal</i> American Physical Therapy Association National Media Relations Corps Member Research Committee, APTA Academy of Leadership and Innovation Peer Manuscript Reviewer: Medical Care, JAMA, HealthAffairs, PT Journal Washington Delegate, American Physical Therapy Association House of Delegates Neurologic Specialization Academy of Content Experts, American Board of Physical Therapy Specialties Vice Chair & Nominating Committee, Academy of Neurologic Physical Therapy Stroke Special Interest Group Regent, University of Portland Board of Regents
2012-2018	Physical Therapy Instructor, St. Luke & St. Damien Hospitals, Tabarre Haiti
Certifications a 2023-Present 2021-Present 2017-Present 2015-Present 2014-2016 2012-Present 2009-Present	nd Professional Memberships Member, American Congress of Rehabilitation Medicine Member, AcademyHealth Board-Certified Specialist in Neurologic Physical Therapy (NCS) American Physical Therapy Association Certified Clinical Instructor National Stroke Association Certified Stroke Rehabilitation Specialist Physical Therapist License #60278046, Washington State Member, American Physical Therapy Association (APTA)
Honors 2022 2021 2021 2020 2018 2018 2018 2014 2009-2012 2009 2009 2009 2009 2009 2008 2005-2009	American Physical Therapy Association Dorothy Briggs Memorial Scientific Inquiry Award Foundation for Physical Therapy Research Promotion of Doctoral Studies Scholarship AcademyHealth Annual Research Meeting Best Poster Nominee Academy of Neurologic Physical Therapy Research Award for Best Abstract University of Washington Graduate School Top Scholar Award Seattle Met Magazine Extraordinary Board Member Award for NPH USA University of Portland Contemporary Alumni Service Award Physical Therapy Academic Fellowship, University of Puget Sound Valedictorian, University of Portland class of 2009 Blondel-Carlton Award for Excellence in Biology, University of Portland Manuel Macías Certificate in Excellent in Spanish, University of Portland M.J. Murdock Charitable Trust Undergraduate Research Fellowship Archbishop Christie Undergraduate Scholarship, University of Portland

# C. Contributions to Science

1. <u>Therapy Practices and Patient Outcomes in Skilled Nursing Facilities (SNFs):</u> The 2019 Medicare Patient Driven Payment Model (PDPM) removes incentives for higher intensity individual physical and occupational therapy in SNFs in response to historic financially motivated therapy overprovision. However, PDPM does not take quality or patient outcomes into account, and patients may be at risk for declines in necessary therapy services. To improve the body of evidence on intensive therapy in SNFs, I led a systematic review of therapy intensity and patient outcomes in SNFs in the years prior to PDPM. We found moderate level evidence that higher intensity therapy leads to shorter SNF lengths of stay and higher rates of community discharge. We also published a manuscript that found positive associations between financially motivated thresholding (i.e., 10 or fewer additional weekly minutes of therapy over payment thresholds) and patient outcomes. This work provides further justification of ongoing monitoring of therapy intensity and patient outcomes after PDPM.

PDPM also led to sharp increases in multiparticipant therapy (2-6 patients per therapist per therapy session) in SNFs, compared to individualized one-on-one therapy. We published work that found small positive associations between receiving a small proportion of total therapy time in multiparticipant therapy sessions and better functional improvement and community discharge outcomes. However, the positive relationships disappeared once multiparticipant therapy as a proportion of total therapy exceeded the 25% limit imposed by PDPM. Results indicate that lower levels of multiparticipant therapy may be both efficient

and cost-effective as well as positive for patient outcomes, however, most therapy sessions should continue to be provided as individualized therapy.

- a. **Prusynski RA,** Gustavson A, Shrivastav S, Mroz T. (2021). Rehabilitation intensity and patient outcomes in Skilled Nursing Facilities in the United States: A systematic review. *PTJ: Physical Therapy and Rehabilitation Journal*. March 3;101(3) DOI:10.1093/ptj/pzaa230
- b. **Prusynski RA,** Frogner B, Rundell S, Pradhan S, Mroz T. Is more always better? Financially motivated therapy and patient outcomes in Skilled Nursing Facilities. *Archives of Physical Medicine and Rehabilitation.* 2023, Aug 2. DOI: 10.1016/j.apmr.2023.07.014
- c. **Prusynski RA,** Rundell S, Pradhan S, Mroz T (2022). Some but not too much: Multiparticipant therapy and positive patient outcomes in Skilled Nursing Facilities. *The Journal of Geriatric Physical Therapy*. DOI: 10.1519/JPT.00000000000363
- 2. <u>Staffing in SNFs:</u> Overall therapy staffing in SNFs is considered in Medicare quality measures, however, optimal therapy staffing for efficiency and quality of care is unknown, as is the ideal mix of lower-paid therapy assistants and skilled therapists. I led an analysis examining whether therapy assistant staffing is associated with quality outcomes. We found that staffing up to 75% occupational therapy assistants and 25-75% physical therapy assistants compared to therapists were associated with higher rates of patient community discharges. Thus, skilled nursing facilities seeking to maximize profit while maintaining quality may choose to employ a balance of assistants to therapists. I then led an interrupted time series study demonstrating a nearly 15% decline in physical and occupational therapy staffing in the first six months after PDPM implementation. Assistants experienced larger staffing declines than skilled therapists. This early policy evaluation publication confirmed stakeholder concerns that shifting incentives under PDPM would lead to declines in therapy staffing. Finally, I expanded my work on staffing outside of therapy disciplines to examine trends in all non-nursing occupations across all U.S. SNFs during Medicare payment reform and the COVID-19 pandemic.
  - a. **Prusynski RA,** Frogner B, Skillman S, Dahal A, Mroz T (2021). Therapy assistant staffing and quality outcomes in Skilled Nursing Facilities. *Journal of Applied Gerontology*. DOI: 10.1177/07334648211033417.
  - b. Prusynski RA, Leland N, Frogner B, Leibbrand C, Mroz T (2021). Therapy Staffing Declined in Skilled Nursing Facilities after Implementation of the Patient Driven Payment Model. *The Journal of The American Medical Directors Association*. DOI: 10.1016/j.jamda.2021.04.005; PubMed Central PMCID: PMC8478699.
  - c. **Prusynski RA,** Frogner B, Mroz TM. Staffing trends for non-nursing occupations in skilled nursing facilities in the United States between 2018-2022. *Center for Health Workforce Studies, University of Washington,* November 2023.
- 3. <u>Variability in Practice and Outcomes based on SNF Organizational Characteristics:</u> Variation in quality or response to payment policy in the fragmented SNF industry can often be predicted based on SNF organizational characteristics, however, quality monitoring gives little attention to these organizational factors. I published a Special Article examining historical response to Medicare payment policy that reinforced patterns of organizational characteristics associated with profit-maximizing responses to policy. Another publication found that SNFs employing all contract therapy staff and for-profit facilities had higher rates of financially motivated therapy billing behavior, however, there was minimal impact on patient outcomes.

To help predict variability in the precipitous rise in multiparticipant therapy immediately after PDPM, I published a manuscript examining whether patient-level or facility-level factors influenced multiparticipant therapy provision in SNFs prior to policy change. This analysis found that facility factors had generally larger effects compared to patient clinical factors, suggesting that multiparticipant therapy provision prior to PDPM was not necessarily motivated by patient need. Very high provision of multiparticipant therapy was seen more frequently in low-quality SNFs.

Finally, we published an interrupted time series analysis examining relationships between SNF organizational characteristics and SNF ownership changes, as well as whether ownership changes impacted short-stay outcomes. We found similar patterns of higher ownership changes in for-profit SNFs with lower staffing ratings, but no relationship between ownership change and hospital readmission or community discharge outcomes. Ownership changes were associated with a very small (0.32-percentage

point) increase in emergency department visits after SNF discharge. Results suggest that ownership change is a symptom – rather than a cause – of lower quality in SNFs.

- a. **Prusynski RA.** Medicare Payment Policy in Skilled Nursing Facilities: Lessons from a History of Mixed Success. (2021). *The Journal of the American Geriatrics Society.* DOI: 10.1111/jgs.17490
- b. Prusynski RA, Frogner B, Dahal A, Skillman S, Mroz T. (2020). Skilled Nursing Facility Characteristics Associated with Financially Motivated Therapy and Relation to Quality. *Journal of the American Medical Directors Association*. DOI: 10.1016/j.jamda.2020.04.008
- c. **Prusynski RA**, Pradhan S, Mroz T. Skilled Nursing Facility organizational characteristics are more strongly associated with multiparticipant therapy provision than patient characteristics. (2021) *PTJ: Physical Therapy and Rehabilitation Journal.*
- d. **Prusynski RA**, Humbert A, Mroz TM. Skilled Nursing Facility Changes in Ownership and Short-Stay Medicare Patient Outcomes. *JAMA Network Open.* 2023;6(9):e2334551. doi:10.1001/jamanetworkopen.2023.34551
- 4. <u>Health Disparities in Rehabilitation:</u> My work considers outcomes of post-acute rehabilitation for historically marginalized groups as well as disparities based on payer status. I recently co-led a scoping review of racial disparities in physical therapy outcomes for a special issue of *PTJ: Physical Therapy and Rehabilitation Journal*. We found that the rehabilitation literature primarily examines outcome disparities for patients with neurologic diagnoses in inpatient settings, and worse outcomes were reported for all marginalized racial and ethnic groups compared to white patients. This manuscript has been accepted with minor revisions as of October 2023.

Our work on therapy staffing during PDPM and the COVID-19 pandemic examined identified SNFs with larger staffing declines but did not find consistent differences in staffing based on percentages of racial/ethnic minority patients in SNFs. This publication found that larger relative staffing declines occurred in for-profit facilities, as well as SNFs, (a) with more rural and Medicare patients, (b) employing more therapy assistants at baseline, and (c) providing more intensive therapy prior to policy change. The COVID-19 pandemic led to further staffing declines in rural SNFs, which is concerning for disparities in rural access to care. Finally, I recently led a manuscript looking at differences in home health services and outcomes for patients based on payer status, which found disparities in access to care and functional improvement outcomes for patients with Medicare Advantage compared to Traditional Medicare.

- a. **Prusynski RA,** Humbert, A Leland N, Frogner B, Saliba D, Mroz T. Dual impacts of Medicare payment reform and the COVID-19 pandemic on therapy staffing in Skilled Nursing Facilities. *The Journal of the American Geriatrics Society* DOI: 10.1111/jgs.18208.
- b. **Prusynski RA,** D'Alonzo A, Johnson M, Mroz T, Leland N. Differences in home health services and outcomes between Traditional Medicare and Medicare Advantage. *JAMA Health Forum [In Press]*

### Complete list of Published Work in MyBibliography:

https://www.ncbi.nlm.nih.gov/myncbi/rachel.prusynski.1/bibliography/public/

### **BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.** 

NAME: Thuan Ong, MD, MPH

#### eRA COMMONS USER NAME (credential, e.g., agency login): THUANONG

#### POSITION TITLE: Associate Professor

#### EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of California, Los Angeles, CA	BS	06/1988	Biology
University of California, Los Angeles, CA	MPH	06/2000	Environmental Science
Saint Louis University, St. Louis, MO	MD	05/2004	Medicine
University of California, Davis, Sacramento, CA	Residency	06/2007	Internal Medicine
University of Washington, Seattle, WA	Fellowship	06/2010	Geriatric Medicine

#### A. Personal Statement

I am a faculty member in Division of Gerontology and Geriatric Medicine, Department of Medicine at the University of Washington (UW). My scholarly work reflects a commitment to improving care delivery to older adults and passion for teaching geriatric medicine to interprofessional clinicians. I have practiced and provided clinical leadership in the many different nursing home environments, and practiced inpatient medicine and outpatient medicine at Harborview Medical Center, a Level I trauma center, since 2008. I have developed intimate knowledge of these three practice environments and worked collaboratively with interdisciplinary members of healthcare to meet the needs of geriatric patient populations in each of these environments. As the Medical Director of the UW Post-Acute Care and Director of the PAC Clinical Service, I have a broad background in leading development and implementation of policies and procedures to improve the clinical care received by patients discharging to nursing homes. As a result of my experiences in the nursing homes and inpatient medicine. I recognize the importance of value-based care and alternative payment models has had with accessing post-acute care and its utilization. The goal of the proposed research is to establish proof-of-concept for integrating Medicare administrative data and UW Medicine electronic health records to acquire more comprehensive information on clinical, social, behavioral, environmental, and community factors that may influence access to post-acute care and subsequent care outcomes for patients. I look forward to working with Drs. Prusynski and Mroz and the rest of the study team on this project.

#### Selected relevant publications:

Austin EJ, Neukirch J, **Ong TD**, Simpson L, Berger GN, Keller CS, Flum DR, Giusti E, Azen J, Davidson GH. Development and Implementation of a Complex Health System Intervention Targeting Transitions of Care from Hospital to Post-acute Care. J Gen Intern Med. 2021, 36(2):358-365. PMCID: PMC7878619.

Ongoing and recently completed projects include:

Agency for Healthcare Research and Quality (AHRQ) R01HS027805-01 Davidson (PI) 9/30/20- 7/31/25 Preventing Medication-Related Problems in Care Transitions to Skilled Nursing Facilities

Health Resources and Services Administration U1QHP28742

Phelan (PI) 07/01/19-06/30/2024 Geriatric Workforce Enhancement Program

National Institute of Health on Aging U19AG010483 Feldman (PI) 04/01/2017-05/18/2022 Prazosin for Disruptive Agitation in Alzheimer's Disease (PEACE-AD)

## B. Positions, Scientific Appointments and Honors

Positions and Scientific Appointments

2018-Present	Associate Professor, UW Division of Gerontology and Geriatric Medicine	
2017-Present	Member, Society for Post-Acute and Long-Term Care Medicine	
2017-2018	Chair, American Geriatric Society Annual Program Committee	
2016-Present	Associate Medical Director, UW Medicine Post-Acute Care	
2012-2018	Assistant Professor, UW Division of Gerontology and Geriatric Medicine	
2012-2018	Committee Member, American Geriatric Society Annual Program Committee	
2010-2012	Acting Instructor, University of Washington, Seattle, WA	
2009-2019	Associate Medical Director, Providence Hospice of Seattle	
2009-2010	University of Washington Teaching Scholars Program	
2008-Present	Member, American College of Physicians	
2008-Present	Member, American Geriatric Society	
2007-2008	Chief Medical Resident, UC Davis, Sacramento, CA	

**Clinical Licensures and Specialty Board Certifications** 

2009-Present	American Board of Internal Medicine, Geriatric Medicine
2008-Present	Washington State Medical License
2007-Present	American Board of Internal Medicine, Internal Medicine

<u>Honors</u>

2004-2007	Professionalism Award, Dept. of Internal Medicine, UC Davis
2000-2004	Saint Louis University, Doctor of Medicine, Cum Laude
1999-2000	UCLA Environmental Health Science Fellowship

# C. Contributions to Science

1. **Geriatric health services**: Geriatric populations have highly nuanced needs, and health services research plays a crucial role in understanding how to deliver care that addresses the needs of geriatric patient populations. As part of my research, I have investigated several questions around designing appropriate and patient-centered geriatric care in diverse clinical scenarios.

- a. Alvarez-Nebreda M, Bentov N, Urman R, Setia S, Huang J, Pfiefer K, Bennett K, Ong T, Richman D, Gollapudi D, Rooke A, & Javedan H. Recommendations for preoperative management of frailty from the Society for Perioperative Assessment and Quality Improvement (SPAQI). J Clin Anesth. 2018, (47):33-42. PMID: 29550619.
- b. Johnston BJ, Ong TD, McVeigh U, Holleran A, Ames E. Hip Fracture in the Setting of Limited Life Expectancy: The Importance of Considering Goals of Care and Prognosis. J Palliat Med. 2018, 21(8):1069-1073. PMID: 29792735.
- c. Meier C, & **Ong T**. "To feed or not to feed? A case report and ethical analysis of withholding food and drink in a patient with advanced dementia," J Pain Symptom Manage. 2015, 50(6):887–890. PMID: 26300024.
- d. Alvarez-Nebreda ML, Bentov N, Urman RD, Setia S, Huang JC, Pfeifer K, Bennett K, Ong TD, Richman D, Gollapudi D, Alec Rooke G, Javedan H. Recommendations for Preoperative Management of Frailty from the Society for Perioperative Assessment and Quality Improvement (SPAQI). J Clin Anesth. 2018, 47:33-42. PMID: 29550619.

2. **Novel approaches to improving post-acute care delivery:** Eliciting the perspective of both hospital and post-acute care teams is a critical component of improving health care service delivery across care settings. My research has had a strong focus on understanding stakeholder perspectives on challenges and barriers to effective care delivery during the acute to post-acute continuum. I have assisted in the development and implementation of new models of care delivery and financing for highly vulnerable patient populations, and guided the development of multiple process improvement initiatives to ensure they meet the needs of PAC clinical teams and health systems at large.

- a. Davidson GH, Austin E, Thornblade L, Simpson L, Ong T, Pan H, Flum D. Improving transitions of care across the spectrum of healthcare delivery: A multidisciplinary approach to understanding variability in outcomes across hospitals and skilled nursing facilities. Am J Surg. 2017, 213(5): 910-914. PMCID: PMC5842800.
- b. Austin E, Neukirch J, Lavallee D, Simpson L, Ong T, Hawken-Dennis E, Pan H, Flum D, & Davidson G. Engaging Cross-setting stakeholders to improve the quality of post-acute care transitions: Results of the Transfer Alerts and Communication (TAC) transition tool. Poster at 2018 Academy Health Annual Research Meeting, June 2018. Seattle, WA.
- c. Austin EJ, Neukirch J, **Ong TD**, Simpson L, Berger GN, Keller CS, Flum DR, Giusti E, Azen J, Davidson GH. Development and Implementation of a Complex Health System Intervention Targeting Transitions of Care from Hospital to Post-acute Care. J Gen Intern Med. 2021, 36(2):358-365. PMCID: PMC7878619.
- d. Kim G, Wang M, Pan H, Davidson GH, Roxby AC, Neukirch J, Lei D, Hawken-Dennis E, Simpson L, Ong TD. A Health System Response to COVID-19 in Long Term Care and Post-Acute Care: A Three-Phase Approach. J Am Geriatr Soc. 2020; 68(6):1155-1161. doi: 10.1111/jgs.16513.
- e. **Ong TD**, Bann MD. Sponsoring Patient's Access to Temporary Care at Home (sPATCH). Poster at VITAL, America's Essential Hospitals, Annual Meeting, June 2022. Boston, MA.

3. Advancing the geriatric training of health professionals. More than one-third of all hospitalized individuals in the United States are aged 65 and older. Despite the Accreditation Council for Graduate Medical Education (ACGME) requirement for a geriatric medicine curriculum for all internal medicine and family medicine residency programs, there is still concern that graduating residents will not be adequately trained to care for the growing number of older patients. My research has focused on measuring internal medicine and family medicine residents' understanding and use of geriatric competencies established by the American Geriatrics Society (AGS) when caring for older hospitalized adults, including postoperative considerations such as palliative care, neurocognitive complications, and the hospital discharge. I have subsequently published peer-reviewed and academic tools to support health professional's understanding of effective care for geriatric populations during acute and post-acute stages of care.

- a. Bennett KA, Ong T, Verral AM, Vitiello MV, Phelan EA. Project ECHO—Geriatrics: Training the Pacific Northwest's Future Primary Care Providers to Meet the Needs of Older Adults. J Grad Med Educ. 2018, 10(3):311-315. PMCID: PMC6008038.
- b. Bynum DL, Wilson LA, Ong T, Callahan KE, Dalton T, Ohuabunwa U. Meeting American Geriatrics Society Competencies: Are residents meeting expectations for quality care of older adults? J Am Geriatr Soc. 2015, 63(9):1918-23.
- c. **Ong TD**, Huang JC, Crawford CA, Bennett KA. "The Geriatrician's Perspective on Surgery in the Geriatric" in *Geriatric Anesthesiology, 3rd ed*. Barnett SR, McSwain J, Reves JG, Rooke A, eds. New York, NY: Springer Publishing, June 2017.