



US Deprescribing Research Network

ANNUAL REPORT 2023



Network Co-Principal Investigators: Michael Steinman, MD and Cynthia Boyd, MD, MPH

www.deprescribingresearch.org

Welcome

The US Deprescribing Research Network (USDeN) is a national research network devoted to supporting high-quality, high-impact research on deprescribing for older adults. Funded by the US National Institute on Aging since 2019, our work is organized around four key pillars:

- We support Investigator Development by providing opportunities for learning, collaboration, and community.
- We facilitate Stakeholder Engagement so that deprescribing research is responsive to the needs and perspectives of older adults and those who care for them.
- We provide Pilot and Grant Planning Awards to catalyze novel research and junior investigator career advancement related to deprescribing.
- We develop high-value Research Resources and Guidance to promote cutting-edge research and advance the field.



We welcome you to learn more and join our community! Please visit us at **deprescribingresearch.org** to learn more and sign up for our listserv to keep abreast of upcoming events and resources. We are excited about activities in the coming year and beyond – we have applied to NIH to renew funding for the network for another 5 years, and envision great opportunities in the years to come.

Cynthia Boyd and Michael Steinman, Co-Principal Investigators, USDeN



What is Deprescribing?

Deprescribing refers to the thoughtful and systematic process of identifying problematic medications and reducing the dose or stopping these medications in a manner that is safe, effective, and helps people maximize their wellness and goals of care.

Deprescribing is not easy. Little is known about: how to best identify which medications are prime for deprescribing, how to safely and effectively stop them, and how to engage patients and families, clinicians, and the health system in this process in a seamless and patient-centered manner. These are the challenges our network seeks to address.

Why is Deprescribing Important?

In the US, 67% of older adults take 5 or more medications.¹



9%

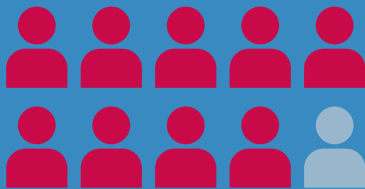


Adverse drug reactions account for 1 of every 11 hospital admissions among older adults.¹



In the US, more than 1 in 7 older adults are using medications with potential for major drug-drug interactions.

15%



More than 9 in 10 would be willing to stop taking one or more of their medicines if their physician said it was possible.²



2 out of every 3 older adults want to reduce the number of medications they are taking.²

67%



In the US, more than 2/3 of older adults use at least one potentially problematic medication.³

¹ Qato et al, <https://pubmed.ncbi.nlm.nih.gov/26998708/>

² Reeve et al, <https://pubmed.ncbi.nlm.nih.gov/30326004/>

³ Deardorff et al, <https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.18463>

Investigator Development



Led by **Drs. Kenneth Boockvar** and **Jennifer Tjia**, our Investigator Development Core is focused on building a community of learning, collaboration, and support for investigators interested in deprescribing.

WEBINARS

In our fourth year, we organized or co-hosted 9 webinars with over 300 participants. Topics ranged from stakeholder-driven research to multi-site deprescribing trials. More than 90% of attendees rated the sessions as very good or excellent. Visit our website to learn more and view archived sessions.

JUNIOR INVESTIGATOR INTENSIVE PROGRAM

Fifteen early-career physician-, pharmacist-, and PhD-scientist investigators comprise our year-4 current Junior Investigator Intensive (JII) cohort. The JII program provides an interdisciplinary community of learning with virtual works-in-progress conferences, core curriculum, office hours, and special webinars designed to help participants advance their research and research careers.

Junior Investigator Intensive Dinner

All four cohorts of the Junior Investigator Intensive (JII) program gathered for an evening event following the 2023 Annual Network Meeting on the evening of May 3rd in Long Beach, California. This event was an opportunity for cohort members to connect and collaborate on potential deprescribing-related projects. Discussion topics included reducing burden of medication administration in individuals with dementia, incentivizing deprescribing across system levels, exploring a novel benzodiazepine deprescribing quality measure from the National Committee for Quality Assurance, and pharmacoepidemiologic studies of deprescribing. As a result of discussions during the 2022 JII evening event, 8 junior investigators published a paper in Journal of the American Geriatrics Society titled, "Value assessment of deprescribing interventions: Suggestions for Improvement".

ANNUAL MEETING

The capstone of our investigator development activities is our annual meeting. This meeting was a great success, with 172 registrants and an invigorating lineup of speakers, panels, and other activities, including keynote speaker Sarah Hilmer, MBBS(Hons), FRACP, PhD, who spoke compellingly of the need for scholarship in deprescribing across the entire translational research continuum. We also had strong engagement with our poster session, with over 70 posters presented and a very high level of enthusiasm. Program evaluations showed that 97% rated the overall meeting quality as very good or excellent, and we were especially pleased with new collaborations and relationships that emerged from the time attendees spent together. Visit our website to view archived sessions and plans for our next annual meeting.



Research in Dementia

The network has received supplemental funding from the National Institute on Aging to conduct dedicated research on Alzheimer's Disease and related dementias. This year we supported ongoing work on a supplement award granted last year, and successfully applied for a new supplement award:



Aanand Naik, MD
Holly Holmes, MD, MS, AGSF

McGovern School of Medicine, UT Health Houston

Priorities Aligned Deprescribing for Persons Living with Dementia and their Caregivers
(funded mid-2022)



Persons living with dementia (PlwD) have a significant burden from multiple chronic conditions and over-medication and may benefit from deprescribing to reduce polypharmacy. Patient Priorities Care (PPC) is an evidence-based approach to identify outcome goals and care preferences (health priorities) and align care to meet those priorities. Less is known about how PPC

works in the context of persons living with dementia (PlwD) and their caregivers and clinicians. Aligning the priorities of each person in this triad is crucial for safe, priorities-guided deprescribing in the setting of dementia. Drs. Naik and Holmes are conducting a pilot-controlled trial in which they will randomize 50 caregiver and community-dwelling PlwD dyads to PPC versus usual care. Enrollment is ongoing, and results pending.



Jennifer Kim, DNP, MSN

Vanderbilt University of Medicine

Implementation of a Deprescribing Intervention among Persons Living with Dementia
(funded mid-2023)

This pilot intervention study aims to implement and assess a patient-centered deprescribing intervention tailored for people living with dementia (PlwD) within a memory care facility. The study addresses the significant challenge of polypharmacy and unnecessary medication use in PlwD, a population prone to medication-related complications. By adapting a proven deprescribing approach, the research seeks to reduce unnecessary medications, potentially

inappropriate medications (PIMs), and the burden of anticholinergic and sedative drugs. The study also aims to evaluate the impact of deprescribing on psychological and behavioral symptoms of dementia (BPSD), as well as to explore barriers and facilitators of deprescribing among surrogate decision-makers. Dr. Kim is conducting single-arm pilot trial in which 40 participants will be randomly divided into smaller cohorts. Enrollment is ongoing, and results pending.



Pilot and Grant Planning Awards



Led by **Drs. Sandra Simmons** and **Amanda Mixon**, our Pilot Core provides several varieties

of grants. Pilot Awards are 1-year awards designed for junior investigators to conduct small-scale or pilot projects that can lead to future, larger research opportunities. Grant Planning Awards are 1-year awards designed for more experienced investigators to support planning activities for large-scale grants. In addition, in summer 2022 we were awarded a \$900,000 administrative supplement from the National Center for Complementary and Integrative Health to expand

our pilot program to support large pilot studies on the use of complementary and integrative health modalities to support benzodiazepine deprescribing in older adults. Our call for applications yielded 12 full applications, from which 4 were selected for funding and are presently getting underway. Finally, we fund small Collaboration Grants to facilitate discrete activities that will enhance new collaborations between and among investigators and stakeholder groups; this past year we funded novel proposals on a deprescribing intervention for black adults in faith-based communities, led by DeLon Canterbury, PharmD and a study on missed opportunities to reduce inappropriate aspirin use among older adults in the emergency department, led by Martin Casey, MD, MPH.

Our Pilot Core works closely with the Stakeholder Engagement Core and meets regularly with funded investigators to help them advance their work, troubleshoot problems, and identify best practices for partnering with stakeholders.

YEAR 4 AWARDEES

(now completing their work)

Anna Hung, PharmD, PhD, MS

Duke University

Impact of Medication Therapy Management for Potentially Inappropriate Medications

Lauren Hunt, PhD, RN, FNP-BC

University of California, San Francisco

Deprescribing of Antidementia Drugs for People with Dementia Enrolled in Hospice

Timothy Anderson, MD, MAS

University of Pittsburgh

Perspectives of Older Adults with Chronic Pain and Primary Care Providers on Opioid Deprescribing

Hyunjin Noh, PhD, MSW

University of Alabama

Understanding Attitudes toward Deprescribing and Non-Pharmacological Pain Management among Older Adults with Multiple Chronic Conditions

Wade Thompson, PharmD, MSc, PhD and

Carina Lundby, MScPharm, PhD

University of British Columbia & Odense U. Hospital

Measuring Quality of Life in Deprescribing Trials



PROFILE

Hyunjin Noh, PhD
Pilot Grant Awardee

Dr. Hyunjin Noh is an associate professor at the University of Alabama School of Social Work. She is a gerontological social work researcher with expertise in palliative care and pain management among older adults in community settings. In her USDeN pilot study, she aims to understand attitudes towards deprescribing as well as knowledge and views of non-pharmacological pain management among community-dwelling older adults with multiple chronic health conditions and pain. Additionally, she seeks to explore potential differences in these attitudes, knowledge, and views based on demographic, socioeconomic, and health factors.

Utilizing the approach of community-based participatory research (CBPR), Dr. Noh and her team collaborated closely with community liaisons throughout the research process. The recruitment efforts encompassed both rural and urban areas of

YEAR 5 PILOT AWARDEES

Sion Scott, MPharm, PhD

University of Leicester

Validation of the Patient Experience of Deprescribing Questionnaire (PED-Q)

Parag Goyal, MD, MSc

Weill Cornell Medicine

N-of-1 Trials to Promote Deprescribing in Older Adults with Transthyretin Cardiac Amyloidosis

Lisa LaRowe, PhD

Massachusetts General Hospital

Evaluating Substance Use-Related Outcomes in Opioid Deprescribing among Older Adults with Chronic Pain: A Mixed Methods Study

Malinee Neelamegam, PhD

University of North Texas Health Science Center

Understanding barriers and facilitators of deprescribing to aid the development of a shared decision-making aid for deprescribing for older Latinx adults with multimorbidity.

BENZODIAZEPINE PILOT STUDIES

Special Administrative Supplement Awardees

Ryan Bradley, ND, MPH

National University of Natural Medicine

Remotely delivered Yoga Nidra for Decreasing Use of BZRAs for Insomnia and Anxiety in Older Adults

Elizabeth Addington, PhD

Northwestern University Feinberg School of Medicine

Positive emotion regulation intervention for benzodiazepine receptor agonist deprescribing in older adults: Anxiety Lowering and Deprescribing through Emotion Regulation (ALDER)

Timothy Anderson, MD, MAS

Beth Israel Deaconess Medical Center

Pilot of a Brief Cognitive Behavioral Therapy Intervention to Enhance Benzodiazepine Deprescribing

Gurjeet Birdee, MD, MPH

Vanderbilt University Medical Center

Augmenting BRZA Deprescribing with Acupuncture and Yoga Among Older Adults .

Alabama, and the majority of participants were Black and female. All participants completed phone surveys on their attitudes, knowledge, and views. Selected participants, stratified by geographic location (urban vs. rural), race, and gender, were then invited to engage in in-depth interviews, providing insights into their personal experiences with pain management and thoughts on deprescribing and non-pharmacological pain management.

Drawing from the findings of her study, Dr. Noh plans to develop an educational intervention to promote deprescribing and non-pharmacological pain management among community-dwelling older adults with multiple comorbidities and chronic pain.

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The USDeN Pilot program provided me with a truly nurturing environment so that I could grow as a researcher in the field of deprescribing research. Regular meetings with program directors, who are esteemed national experts on deprescribing research, offered invaluable guidance and support that proved pivotal to the success of my project. They were always so thoughtful in providing me with creative solutions and alternative perspectives for the challenges I encountered. Furthermore, I was introduced to new resources and opportunities to further my deprescribing research. I eagerly look forward to developing my next deprescribing research project based on what I learned in this enriching program.”

HYUNJIN NOH, PHD

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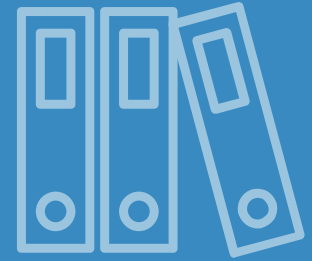
Data and Resources and Working Groups



Led by **Drs. Elizabeth Bayliss** and **Sascha Dublin**, the Data and Resources Core offers a variety of resources and expert guidance to support deprescribing research, with additional resources currently under development. In addition, the network has convened a series of Working Groups to develop high-value resources and best-practice guidance to advance the field.

IRB AND DATA SAFETY MONITORING RESOURCES

Deprescribing research poses special challenges for regulatory review and data safety monitoring. For example, if a medication is stopped and study subject experiences a clinical event that could be prevented by that medication, does that count as a safety event? We have compiled a compendium of successful IRB applications and data safety monitoring plans that demonstrate how experienced investigators have navigated these challenges.



MEASUREMENT IN DEPRESCRIBING RESEARCH

This Working Group, led by Dr. Elizabeth Bayliss, conducted a literature review and expert Delphi process to identify what outcome measures are most important to measure in studies of deprescribing, and then define the current state of science about these high-priority measures. Results from this effort, published in the Journal of the American Geriatrics Society, are guiding efforts to harmonize outcome measurement across studies of deprescribing interventions and helping to stimulate new areas of measure development and consensus.

COMMUNICATION WORKING GROUP

This Working Group, led by Dr. Terri Fried, is synthesizing knowledge about deprescribing communication and developing a communication template based on best practices that clinicians can use when discussing deprescribing. The project team will conduct a systematic review of literature on communication in deprescribing and related areas of decision-making. Results from the literature review will be synthesized to develop a “state of the art” review describing the scope, characteristics, and best practices of communication around deprescribing, including the conduct and measurement of successful communication, with an emphasis on shared decision-making. Following this will be development of a communication aid template that clinicians can use to provide a structure for conversations about deprescribing. This will be developed using an iterative process of development and feedback with an advisory panel, and the template will undergo initial feasibility and acceptability testing in a clinical setting. This project is currently ongoing.

LITERATURE SEARCH STRATEGY GUIDANCE

The field of deprescribing has evolved over the past thirty years, and investigators conducting deprescribing research need to know what other studies are in their area to gain insights, facilitate collaborations, harmonize measures across studies, and avoid duplication of efforts. To further support these efforts, we have developed a literature search strategy guidance tool that can use broad and narrow search parameters tailored to an investigator's purpose for the literature search.

HIGH-VALUE TARGETS FOR DEPRESCRIBING

This Working Group, led by Dr. Shelly Gray, developed a systematic review and meta-analysis of deprescribing studies to identify what types of interventions, medications, and care settings yield the greatest impact for deprescribing and associated clinical outcomes. This manuscript, currently under journal review., will help inform priority areas for future research and implementation.



CONSULTATION SERVICES

Investigators can request a free, one-hour consultation with a subject matter expert to provide guidance on a specific issue in their research. This service is open to all. In addition, we strongly encourage Pilot and Grant Planning Award awardees and Junior Investigator Intensive awardees to make use of this resource.

DATA HARMONIZATION WORKING GROUP

This Working Group, led by Dr. Sascha Dublin, has developed and refined methods around creating, operationalizing, and implementing measures relevant to deprescribing studies across 5 institutions with different data systems, including Kaiser Washington, Duke, University of Pennsylvania, Kaiser Colorado, and the Durham VA Health Care System. This work is developing infrastructure for multi-site research including preparing study sites for future deprescribing trials and informing the creation of a “user’s guide” for using electronic health data for deprescribing research. The use of diverse sites and the user’s guide will lay a roadmap for other sites to participate in a single- and/or multi-site research efforts in deprescribing that use electronic health data. This group also presented “Measuring Key Deprescribing Variables from Electronic Health Records: Challenges and Recommendations” at the USDeN 2023 Annual Meeting, which can be viewed on our website, and a manuscript describing the findings and making recommendations is under journal review.

Stakeholder Engagement



Engaging with the users of deprescribing research – including patients and caregivers, clinicians, and health system and policy leaders – is a key principle that underlies the work of the network. Led by **Drs. Nicole Brandt** and **Catherine Sarkisian** and **Ms. Carmen Reyes**, the Stakeholder Engagement Core supports a number

of initiatives that amplify this theme. Stakeholder representatives and core leaders participate in the development and review of pilot and grant planning awards, meet with network awardees, participate in pilot and grant planning awards, engage with Junior Investigator Intensive awardees, contribute to educational programs, and more.

STAKEHOLDER ENGAGEMENT COUNCIL

The Stakeholder Engagement Council comprises older adults and their caregivers as well as health care professionals and health systems representatives. The Council provides input on network activities, helps select network awardees, and serves as a conduit for disseminating network-sponsored research to communities of interest.



G. CHENG BRAUN



D. BROOKS



S. CHOI



P. D'ANTONIO



E. JIMENEZ



K. MASLOW



P. STANBACK MILLER



D. PRICE



R. QUINTANILLA



S. RODRIGUEZ-SHAPIRO



D. WALES

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Being a part of the USDeN Stakeholder Engagement Council is a wonderful opportunity to engage with professionals involved in this important research. As a Gerontologist and community advocate, I appreciate providing input from the perspective of diverse community members. As I expressed as a panelist during the USDeN annual meeting in Long Beach, the research on deprescribing will have a significant impact on older adults and their care providers, so their perspective is very important.”

Susi Rodriguez Shapiro

Community Action Board Member, UCLA

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In Our Fourth Year:

9 pilot and grant planning awards awarded



15 participants in the Junior Investigator Intensive program

173 papers published by network-supported investigators



Multiple research grants awarded to network-supported investigators including: NIA Beeson K76, NIA K01, NIH K12, NHLBI K23, IMPACT Collaboratory, Pepper Center, Swiss National Foundation, Michigan Institute for Clinical & Health Research, Society for Academic Emergency Foundation ARMED Pilot Grant, and University of North Carolina Translational and Clinical Sciences Institute awards.

23,000 website impressions; 2,428 Twitter followers



944 network members

Collaborations with: the AGING Initiative, NIDUS (Network for Investigation of Delirium: Unifying Scientists), American Geriatrics Society, Research Centers Collaborative Network, and more.



94% of network members somewhat or extremely satisfied by the work of the network



*The US Deprescribing Research Network is funded by
the National Institute on Aging, Grant No. R24AG064025.*

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