AGS Geriatrics Healthcare Professionals
Leading Change. Improving Care for Older Adults.

THE AMERICAN GERIATRICS SOCIETY
40 FULTON STREET, SUITE 809
NEW YORK, NEW YORK 10038
212.308.1414 TEL
www.americangeriatrics.org

July 15, 2025

SUBMITTED ELECTRONICALLY VIA
ai-rfi@nih.gov

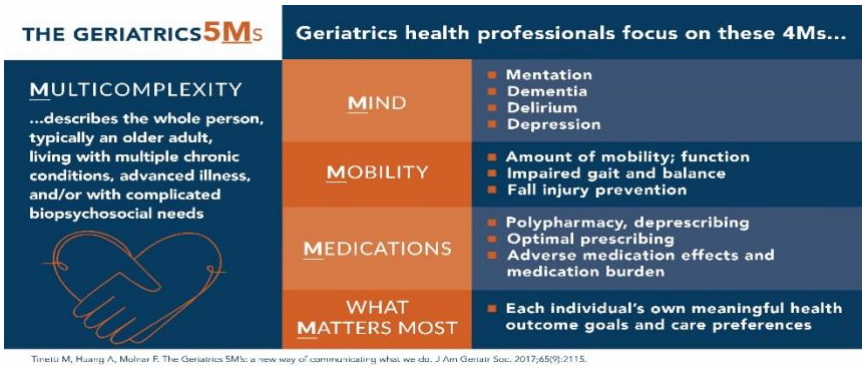
Re: Request for Information (RFI): Inviting Comments on the NIH Artificial Intelligence (AI) Strategy (NOT-OD-25-117)

The American Geriatrics Society (AGS) greatly appreciates the opportunity to submit our recommendations to the National Institutes of Health (NIH) for its institute-wide artificial intelligence (AI) strategy. AGS is a national non-profit organization comprised of 6,000+ geriatrics healthcare professionals and basic and clinical researchers dedicated to improving the health, independence, and quality of life of older Americans. AGS is an anti-discriminatory organization. We believe in a society where we all are supported by and able to contribute to our communities. The Society leads efforts to incorporate attention to older adults living with multiple chronic conditions into research[1,2] and clinical care[3,4] and is a champion for improving attention to the unique health care needs of older adults in workforce training.[5,6] We believe that understanding disease across the lifespan[7] is important to extending healthspan—the time someone lives in generally good health—for all of us as we age.

Our members are on the frontlines of caring for older Americans, many of whom are living with multiple chronic conditions, advanced illness, and/or with complicated biopsychosocial issues. An important framework for how geriatrics health professionals care for older adults is the Geriatrics 5Ms (see table below).[8] The Geriatrics 5Ms informed the development of the 4Ms of age-friendly care (What **M**atters,

[1] Advancing Geriatrics Research: AGS/NIA Conference Series. American Geriatrics Society. Accessed July 11, 2025. https://www.americangeriatrics.org/programs/advancing-geriatrics-research-agsnia-conference-series
[2] The AGS/AGING Learning Collaborative. AGS CoCare. Accessed July 11, 2025. https://mccresearch.agscocare.org/what_is_the_ags_aging_learning_collaborative
[3] American Geriatrics Society Expert Panel on the Care of Older Adults with Multimorbidity. Guiding principles for the care of older adults with multimorbidity: an approach for clinicians. *J Am Geriatr Soc*. 2012;60(10):e1-e25. doi:10.1111/j.1532-5415.2012.04188.x
[4] McNabney MK, Green AR, Burke M, et al. Complexities of care: common components of models of care in geriatrics. *J Am Geriatr Soc*. 2022;70(7):1960–72. doi:10.1111/jgs.17811
[5] American Geriatrics Society. Letters to House and Senate Appropriations Leadership on FY 2026 Funding for Geriatrics Workforce Training Programs. July 14, 2025. Accessed July 14, 2025. https://www.americangeriatrics.org/sites/default/files/Letters%20to%20House%20and%20Senate%20Appropriations%20Leadership%20on%20FY%202026%20Funding%20for%20Geriatrics%20Workforce%20Training%20Programs%20%287%2014%2025%29.pdf
[6] AGS Advancing Health Care in Surgical and Related Medical Specialties. Special Collection. *J Am Geriatr Soc*. Accessed July 11, 2025. https://agsjournals.onlinelibrary.wiley.com/hub/journal/15325415/agsadvancinggeriatrics
[7] Inclusion Across the Lifespan in Human Subjects Research. National Institutes of Health. Updated February 27, 2025. Accessed July 11, 2025. https://grants.nih.gov/policy-and-compliance/policy-topics/inclusion/lifespan
[8] Tinetti M, Huang A, Molnar F. The Geriatrics 5M's: A new way of communicating what we do. *J Am Geriatr Soc*. 2017;65(9):2115. doi:10.1111/jgs.14979

Medications, **M**entation, and **M**obility) of the Age-Friendly Health Systems (AFHS) movement which seeks to reimagine the 21st century health system so as to provide care that is age-friendly, respects the goals and preferences of older persons, and meaningfully and substantially includes family caregivers in the plan of care.[9]



AGS appreciates that NIH is taking steps to becoming a more unified Institute, building synergy across programs, improving transparency, and accelerating research and development in AI for the ultimate benefit of patients. Geriatricians and other geriatrics clinicians who care for older adults with complicated medical issues and social challenges support a holistic life stage approach to all research. This is vital to fully understanding the diverse effects of aging on the older adult population and effectively addressing the multifaceted issues related to aging. Accordingly, AGS respectfully submits the following recommendations that reflect the most relevant and appropriate considerations for older adults as you develop an NIH-wide strategy on AI.

TOPIC	RECOMMENDATION
Strategic Architecture • Foundational themes (e.g., Data Readiness, Trust, Translation, Workforce) and pillars that should anchor the plan. • Potential actions and milestones for transitioning from analytics to semi-autonomous agents and, ultimately, AI beings capable of hypothesis generation, reproducibility studies, and continuous learning.	<u>Data Readiness, Interoperability, and Data Integration</u> • Facilitate linkage and harmonization across electronic health records (EHRs), sensors, imaging, genomics, claims, and social determinants data. • Promote common data models and standards (e.g., Fast Healthcare Interoperability Resources, Observational Medical Outcomes Partnership) to support scalable and reusable AI tools. • Extend beyond quantity to include quality, representativeness, and temporal depth of aging data. • Invest in curated, longitudinal aging datasets with linked clinical and functional outcomes to enable training and validation of generalizable models. <u>Trust and Ethics</u> • Create aging-specific ethical frameworks addressing consent capacity, data sharing preferences, surveillance, and autonomy in AI-assisted decision-making, taking into account the critical importance of delivery of person-centered care that facilitates cross-study research and evaluating best practices.[10]

[9] Mate KS, Berman A, Laderman M, Kabcenell A, Fulmer T. Creating age-friendly health systems - a vision for better care of older adults. *Healthc*. 2018;6(1):4-6. doi:10.1016/j.hjdsi.2017.05.005

[10] The American Geriatrics Society Expert Panel on Person-Centered Care. Person-centered care: a definition and essential elements. *J Am Geriatr Soc*. 2016;64(1):15-18. doi:10.1111/jgs.13866

	• Establish guardrails for passive monitoring (e.g., smart home devices, wearables) and algorithm-driven recommendations for vulnerable populations.
	• Safeguard older adults' data privacy and confidentiality, advance health equity, address bias, and protect vulnerable participants.
	
	<u>Translation</u>
	• Support preclinical-to-clinical pipelines specific to aging interventions, including tools for assessing functional outcomes, quality of life, and caregiver burden as core AI endpoints.
	
	<u>Workforce</u>
	• Prepare a dual-capacity workforce with clinicians who can interpret and act on AI outputs and data scientists who understand geriatrics care principles (Geriatrics 5Ms).[8]
	• Ensure ability to implement whole-person-focused studies of age-related chronic diseases, such as diabetes, heart disease, and cancer that continue to afflict 80 percent of people who are 65 and older[11] by:
	  ○ Increasing efforts to recruit and support the next generation of aging researchers with a focus on supporting geriatrics health professionals and trainees to embark on careers in aging research; and
	  ○ Ensuring that all researchers have the training that is necessary for including complex older adults in research.[12]

Research & Innovation Actions • High-impact use-cases for AI in biomedical discovery, public-health protection, and clinical decision-support. • Mechanisms to enhance reproducibility, reporting, and benchmarking of AI models in biomedicine.	<u>High-Impact</u> • Standardize and share AI-ready aging datasets across NIH-funded projects. • Enable hypothesis-generating agents that identify new aging biomarkers, treatment response patterns, or gaps in care. • Advance lifelong learning agents that adapt to evolving patient data and generate aging-specific insights across datasets. <u>Enhancing Reproducibility, Reporting, Benchmarking</u> • Fund replication studies that independently validate AI models in different health systems and among diverse aging subpopulations such as those living in rural areas, who are cognitively impaired, or with limited function. • Create NIH-supported benchmark datasets for aging-related conditions (e.g., frailty, dementia, falls) with pre-defined tasks and metrics for fair comparison across models.

[11] National Prevention Council. Healthy Aging in Action: Advancing the National Prevention Strategy. Published November 2016. Accessed July 11, 2025. https://www.hhs.gov/sites/default/files/healthy-aging-in-action-final.pdf

[12] The AGS/AGING Learning Collaborative. Multiple Chronic Conditions Research: Core Curriculum. AGS CoCare. Accessed July 14, 2025. https://mccresearch.agscocare.org/products

	• Develop NIH-hosted model repositories (akin to Model Cards or NIH Bridge2AI) that include metadata on population characteristics, social determinants variables, bias assessments, and intended use. • Encourage use of data sheets for datasets and model cards for all AI tools proposed for aging research with emphasis on generalizability, limitations, and ethical considerations. • Leverage platforms like the AIM-AHEAD and the National Institute on Aging (NIA) IMbedded Pragmatic Alzheimer's disease (AD) and AD-Related Dementias (AD/ADRD) Clinical Trials (IMPACT) Collaboratory to test and deploy AI tools within real-world pragmatic trials.

Intramural–Extramural Synergy
• Ways NIH intramural AI tools, models, and datasets can seed extramural innovation and vice versa.
• Models for shared governance, licensing, and maintenance of jointly developed AI assets.
	<u>Shared Governance</u>
	• Establish aging-specific governance models that guide data access, model approval, and clinical integration.
	• Develop and pilot institutional governance toolkits for AI in aging.
	• Require governance plans for all NIH-funded AI research, including use cases, data flows, and accountability mechanisms.
	  ○ Intramural aging cohorts (e.g., Baltimore Longitudinal Study of Aging) can be integrated into Bridge2AI pipelines and annotated for extramural reuse.
	  ○ Intramural AI tools can be shared with AIM-AHEAD community partners for real-world applications and feedback loops.
	
	<u>Collaborative Synergy</u>
	• Advance AI readiness by launching a collaborative AI Data Harmonization Task Force across NIH intramural programs, Bridge2AI, and AIM-AHEAD to standardize data elements relevant to aging and geriatrics syndromes.
	• Embed AI evaluation by Pilot "AI plugins" to the existing NIA IMPACT Collaboratory and intramural or extramural observational studies to assess clinical utility, patient experience, and functional outcomes of AI interventions.
	• Fund intramural-extramural projects focused on clinician-in-the-loop AI for geriatrics decision-making support, involving both computer scientists and aging care professionals.

Operational Excellence
• Opportunities for AI to improve NIH "customer" experiences (e.g., grant submission, peer review, clinical-center workflows, stakeholder engagement).
• Metrics NIH should use to evaluate operational AI pilots.
	<u>Improving User Experience</u>
	• AI-driven portfolio analysis tools for principal investigators to understand gaps, overlaps, or synergy with existing NIH-funded projects.
	• Use summarization tools for:
	  ○ Automatically generating draft summary statements for Scientific Review Officers.
	  ○ AI-assisted patient matching to trials for structured and unstructured data (e.g., notes, labs, genomics).

	○ Natural Language Processing (NLP) for efficient documentation and extraction of patient-reported outcomes or consent comprehension. • Personalized digital dashboards for grantees or participants to track progress, deadlines, or data contributions. ○ AI Co-Pilot for grant applications, a real-time, generative AI assistant integrated into eRA Commons or the Application Submission System & Interface for Submission Tracking (ASSIST). ○ A reimagined Research Portfolio Online Reporting Tools Expenditures and Results (RePORTER) that uses large language models (LLMs) and vector embeddings to provide semantic rather than keyword-based grant/project search. • Generate plain-language summaries of NIH portfolios by disease, method, or population (e.g., "Show me R01s using NLP for frailty in rural populations"). • Optimize clinical trial portfolios using AI to predict under-enrollment or trial design inefficiencies based on historical and real-time data from ClinicalTrials.gov. Metrics for Evaluation • Error rate reduction • User satisfaction • Match accuracy • Scheduling efficiency • Reach and usability
Facilitating & Validating AI in Healthcare Delivery • Best-practice frameworks, testbeds, and regulatory-science collaborations (e.g., with FDA, VA) to evaluate safety, efficacy, and equity of clinical AI tools.	Best Practices • Develop an NIH-endorsed evaluation framework specific to AI in aging. • Require all AI-focused aging proposals to articulate evaluation plans using standardized criteria. • Use structured frameworks to evaluate readiness, impact, and sustainability such as: ○ Developmental and Exploratory Clinical Investigations of Decision support systems driven by Artificial Intelligence (DECIDE-AI)[13] ○ Standard Protocol Items: Recommendations for Interventional Trials-Artificial Intelligence (SPIRIT-AI)[14] ○ Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM)[15]

[13] Vasey B, Nagendran M, Campbell B, et al. Reporting guideline for the early stage clinical evaluation of decision support systems driven by artificial intelligence: DECIDE-AI. *BMJ.* 2022;377:e070904. doi:10.1136/bmj-2022-070904

[14] Rivera SC, Liu X, Chan A, et al. Guidelines for clinical trial protocols for interventions involving artificial intelligence: the SPIRIT-AI extension. *Nat Med.* 2020;26:1351-1363. doi:10.1038/s41591-020-1037-7

[15] Holtrop JS, Estabrooks PA, Gaglio B, et al. Understanding and applying the RE-AIM framework: clarifications and resources. *J Clin Transl Sci.* 2021;5(1):1-10. doi:10.1017/cts.2021.789

	• Use aging-centered constructs from the International Classification of Functioning, Disability, and Health (ICF) model, AFHS 4Ms,[9] or the World Health Organization's (WHO) intrinsic capacity framework to guide outcome evaluation.[16] • Create a "Model Lifecycle Registry" for NIH-funded AI tools, including versioning, retraining frequency, and flagging performance deterioration. • Coordinate with the Food and Drug Administration (FDA) Real-World Evidence Framework[17] to ensure post-deployment evidence generation is inclusive of older adults. <u>Collaborations</u> • Partner with the Centers for Medicare and Medicaid Services (CMS) to evaluate payment models for AI-assisted care interventions, particularly in home- and community-based services. • Support cross-institution human factors research in AI that emphasizes interface usability for aging clinicians and patients, shared decision-making integration, explanation clarity, and communication of uncertainty.
Reproducibility & Trust • Community-driven standards, audit trails, or other approaches that can facilitate reproducibility and enhance transparency as well as trust across the AI life cycle.	• Promote human-centered and accessible AI design, requiring geriatrics-informed user experience standards to ensure AI tools are usable by older adults and avoid misapplication and safety risks. ○ Engage older populations, including those with complex needs (e.g., multimorbidity, frailty, cognitive impairment) and care partners as co-creators, testers, and evaluators of AI tools. • Increase transparency about how AI models are built, used, and updated. • Address historical mistrust, especially among historically underrepresented populations. • Invest in continual learning algorithms that adapt to population shifts (e.g., post-COVID aging care patterns, new medications) while maintaining clinical safety. • Promote hybrid AI-human systems where decision-making is transparent and guided by clinician and patient values and preferences. • Fund and support participatory design methods that align AI tools with users' goals, abilities, and values, as well as studies that address barriers to uptake, including workflow integration, clinician burden, and reimbursement models.

[16] World Health Organization. *Integrated Care for Older People: Guidelines on Community-Level Interventions to Manage Declines in Intrinsic Capacity*. World Health Organization; 2017. Accessed July 11, 2025. https://iris.who.int/handle/10665/258981

[17] US Food and Drug Administration. Framework for FDA's Real-World Evidence Program. December 2018. Accessed July 11, 2025. https://www.fda.gov/media/120060/download?attachment

	• Fund projects focused on clinician-in-the-loop AI for geriatrics decision support, involving both computer scientists and geriatrics health professionals.
Partnerships & Ecosystem Building • Preferred modalities for NIH to collaborate with other federal agencies, state/local partners, international bodies, patient organizations, industry, and/or philanthropic entities. • Governance approaches that balance open science, privacy, national security/competitiveness, and intellectual-property considerations.	<u>Preferred Modalities</u> • Create partnerships and data- and model-sharing consortia via co-funded interagency initiatives or collaborations with the Department of Veterans Affairs (VA), CMS, FDA, and other aging research networks as well as philanthropic organizations and state-level aging agencies to pilot AI on regulatory science, reimbursement pathways, and care delivery pilots across settings (e.g., home-based care, Program of All-Inclusive Care for the Elderly (PACE), skilled nursing facilities) where older adults receive the bulk of their care. • Create geriatrics-specific AI testbeds, "living labs" for aging AI, real-world environments (e.g., older adult housing, PACE programs, home health agencies) where models can be safely deployed and iteratively refined. • Pilot dual-licensing strategies for AI tools and datasets that is open for non-commercial and academic use to support reproducibility. <u>Governance Approaches</u> • Provisions for commercial use to support public benefit, such as reinvestment into communities or low-resource settings. ○ To govern this complex ecosystem, NIH could adopt a tiered governance model, supporting open science by default while allowing more restrictive licensing or data use when justified by privacy, national security, or competitiveness concerns. • Develop standardized frameworks for Intellectual Property (IP)-sharing, privacy-preserving analytics, and responsible model stewardship (e.g., model cards, usage audits) that would further support innovation without compromising trust or transparency.
Additional Considerations	• <u>Build Regulatory Frameworks for Age-Related Bias and Equity</u>: Establish standards to identify and mitigate age-related algorithmic bias and promote equitable AI performance across diverse older populations. • <u>Support AI for Care Coordination and Caregiver Engagement:</u> Encourage development and evaluation of tools that assist with transitions of care, caregiver support, and advance care planning in older adults.

Thank you for your consideration of our feedback and recommendations. If you have comments or questions, please contact Anna Kim, Senior Manager of Public Affairs & Advocacy, at 212-308-1414 or akim@americangeriatrics.org.