

July 15, 2025

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

Submitted Via Email to ai-rfi@nih.gov

RE: Response to NIH RFI (Notice Number: NOT-OD-25-117): Inviting Comments on the NIH Artificial Intelligence Strategy

On behalf of the Long-Term Post-Acute Care Health Information Technology (LTPAC Health IT) Collaborative we appreciate the opportunity to respond to the National Institute of Health's Request for Information (RFI) on the NIH Artificial Intelligence (AI) Strategy. Our collaborative represents providers serving millions of Medicare beneficiaries across skilled nursing facilities, home health agencies, inpatient rehabilitation facilities, and other long-term/post-acute care (LTPAC) settings.

The Long-Term Post-Acute Care (LTPAC) Health IT Collaborative appreciates the opportunity to provide input on the NIH Artificial Intelligence (AI) Strategy. As a coalition representing providers who care for millions of older adults and individuals with complex, chronic needs across skilled nursing facilities, home health agencies, and other LTPAC settings, we are committed to advancing the safe, effective, and equitable use of AI in healthcare. We look forward to collaborating with NIH to ensure that AI-driven innovation benefits all segments of the healthcare ecosystem, particularly those who have historically been underrepresented in research and technology initiatives.

The Collaborative submits the following comments to inform the NIH AI strategy and highlight our concerns regarding population bias in research—risks that could be amplified as AI technologies evolve. In the United States, adults aged 65 and older constitute the fastest-growing segment of the population, with those over 85 expanding at the most rapid pace. The LTPAC Health IT Collaborative urges NIH to prioritize research and funding that address the unique needs of aging, geriatric, and LTPAC populations. This commitment should encompass advancing interoperability, ensuring data inclusivity, and fostering innovation in care delivery models and AI-driven solutions. Such efforts are essential to achieving equitable, personcentered, and effective healthcare for older adults across all care settings.

1. Strategic Architecture

Foundational Themes and Pillars

• Data Readiness: Prioritize age-stratified, multimodal, and representative datasets, especially for aging, geriatric, and LTPAC populations. Ensure interoperability using HL7 FHIR standards and include functional, cognitive, and social determinants data.



- Trust: Embed algorithmic transparency, bias mitigation, and explainability, particularly
 for AI tools impacting vulnerable populations. Require validation of AI models in
 diverse, real-world cohorts, including older adults and those with multiple chronic
 conditions.
- Translation: Foster pathways for rapid, evidence-based translation of AI innovations into clinical and public health practice, with a focus on LTPAC settings and person-centered care.
- Workforce: Invest in interdisciplinary training that includes geriatric informatics, ethics, and regulatory science, ensuring the workforce can develop, implement, and monitor AI across all care settings.

Actions & Milestones

- Develop milestones for moving from analytics to semi-autonomous agents, including:
 - Establishing benchmarks for AI model performance on geriatric and LTPAC data.
 - Piloting AI agents for hypothesis generation and reproducibility studies using real-world LTPAC datasets.
 - Deploying continuous learning systems in clinical and public health environments, with robust audit trails and feedback loops for ongoing improvement.

2. Research & Innovation Actions

High-Impact Use-Cases

- Biomedical Discovery: Use AI to identify multimorbidity patterns, predict adverse events (e.g., falls, hospitalizations), and advance precision aging research.
- Public Health Protection: Deploy AI for syndromic surveillance in nursing homes, outbreak detection, and resource allocation in under-resourced communities.
- Clinical Decision-Support: Integrate AI-driven CDS tools that account for polypharmacy, functional status, and social determinants, tailored for LTPAC and geriatric populations.

Enhancing Reproducibility, Reporting, and Benchmarking

- Require standardized reporting (e.g., model cards, datasheets) and benchmarking on agediverse datasets.
- Mandate open-source code, synthetic data, and testbeds for reproducibility studies.
- Establish external validation sites, including LTPAC settings, for independent benchmarking of AI models.

3. Intramural-Extramural Synergy

Seeding Innovation

• NIH intramural programs should release AI tools, annotated datasets, and pre-trained models relevant to aging and LTPAC populations for extramural use.



• Encourage extramural partners to contribute back improvements, new use-cases, and real-world validation data.

Shared Governance Models

- Develop joint governance boards with representation from LTPAC, patient, and technical communities.
- Utilize open-source licensing where feasible, with clear attribution and maintenance responsibilities.
- Support federated learning and data-sharing frameworks that respect privacy and regulatory requirements.

4. Operational Excellence

AI for NIH "Customer" Experience

- Deploy AI-powered assistants for grant navigation, submission, and compliance checks.
- Use AI to streamline peer review, flagging conflicts of interest and improving reviewer diversity.
- Implement intelligent scheduling and workflow optimization in NIH clinical centers.

Evaluation Metrics

- User satisfaction and efficiency gains (e.g., reduced grant processing times).
- Equity in access and outcomes (e.g., support for under-resourced applicants).
- Transparency and auditability of AI-driven decisions.

5. Facilitating & Validating AI in Healthcare Delivery

Best-Practice Frameworks and Testbeds

- Collaborate with FDA, VA, and CMS to establish regulatory-science testbeds for AI validation, focusing on safety, efficacy, and equity.
- Require real-world evidence from diverse care settings, including LTPAC, for regulatory approval.
- Support pilot programs for AI-driven remote patient monitoring, ambient AI, and robotics in home and facility-based care.

6. Reproducibility & Trust

Community Standards and Audit Trails

- Support development of community-driven standards for data provenance, model documentation, and audit trails.
- Require transparent reporting of data sources, model training, and validation processes.
- Implement independent "AI Red Teaming" to stress-test models for bias, reliability, and security.

7. Partnerships & Ecosystem Building



Collaboration Modalities

- Establish public-private partnerships with federal, state, and local agencies, as well as international bodies and patient organizations, to co-develop and validate AI tools.
- Create multi-stakeholder advisory boards to guide priorities, monitor progress, and ensure community engagement.

Governance Approaches

- Balance open science and data sharing with robust privacy safeguards, leveraging deidentification and federated learning.
- Address national security and competitiveness through controlled access and export policies.
- Clarify intellectual property rights for jointly developed AI assets, ensuring equitable benefit-sharing and sustainability.

These recommendations reflect the unique needs of aging, geriatric, and LTPAC populations, emphasizing inclusivity, interoperability, transparency, and real-world validation to ensure AI advances benefit all segments of the healthcare ecosystem. The LTPAC Health IT Collaborative offers ongoing collaboration with the NIH to inform its AI strategy. Contact Michelle Dougherty, LTPAC Health IT Collaborative Convener at leaders@ltpachit.org for further dialogue.

Sincerely,

The LTPAC Health IT Collaborative

For a list of LTPAC Health IT Collaborative members, please visit us at www.LTPACHIT.org