

Artificial Intelligence (AI) & Real-World Data (RWD) from Behavioral and Social Science Research Perspectives at NIH

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Statistics and Trustworthy AI for Cross (X)-Domain Acceleration & Joint Statistical Meetings; 2026 August 01-02

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Agenda

1. What are the NIH's priorities?
2. What are highlighted topics (HTs)?
3. What are examples of HTs that apply AI and RWD?
4. How do statisticians and data scientists have a role in these priorities?

What NIH Priorities Can Statisticians and Data Scientists Consider?

In August 2025, Dr. Bhattacharya announced The NIH's Mission Through a Unified Strategy that includes t are not limited to a **Real-World Data (RWD) Platform** and **Artificial Intelligence**.

“Establish a robust and secure national infrastructure consistent with a deep respect for individual privacy rights. This new RWD Platform will provide advanced computational analysis resources for investigators across numerous research areas.”

“The NIH developed an AI Strategic Plan to enhance transparency in AI models, develop replication standards for AI use in research, and expedite the research, development, and translation of AI discoveries to benefit patients.”

Example of Highlighted Topics of RWD & AI at NIH



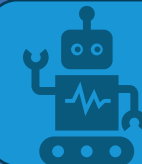
Data Science and AI Approaches for Biomedical, Biobehavioral, and Social Science Research



Behavioral and Cognitive Signals of Aging in Real-World Contexts



Enhancing Data Usage and Utility to Advance Biomedical Research



Research on Chatbots and their Usage



BRAIN Initiative: Data Knowledgebase Ecosystem and NeuroAI Integration



Digital Health and AI Tools for Biomedical and Behavioral Research: Validity and Utility

How do statisticians and data scientists have a role?

The NIH has written its Strategic Plan for Data Science for 2025-2030.
Bottom line, there's plenty for statisticians' and data scientists' contributions.

Goal 1: Improve Capabilities to Sustain the NIH Policy for Data Management and Sharing



Goal 2: Develop Programs to Enhance Human Derived Data for Research



Goal 4: Support a Federated Biomedical Research Data Infrastructure



Goal 3: Provide New Opportunities in Software, Computational Methods, & AI



Goal 5: Strengthen a Broad Community in Data Science



The background is a solid blue color. In the center, the letters "NIA" are written in a large, white, sans-serif font. Below "NIA", the text "The Leader in Aging Research" is written in a smaller, white, sans-serif font. Surrounding the text are several circular images. There are 12 circular portraits of diverse elderly people of various ethnicities and ages. There are also 8 circular images showing medical or biological concepts: a human ear, a brain scan, a couple, a woman in a headscarf, a woman in a visor, a man with a mustache, a couple, a man with a turban, a couple, a knee X-ray, a couple, and a couple. The background is decorated with faint, light blue geometric shapes, including circles and lines connecting them, resembling a network or molecular structure.

NIA

The Leader in Aging Research

Thank you