Lab Journal Excerpts

Year 2 Study – Agentic AI-Powered CliniKiosk: Expanding Healthcare Access with Explainable and Empathetic AI

May 2025 – February 2026

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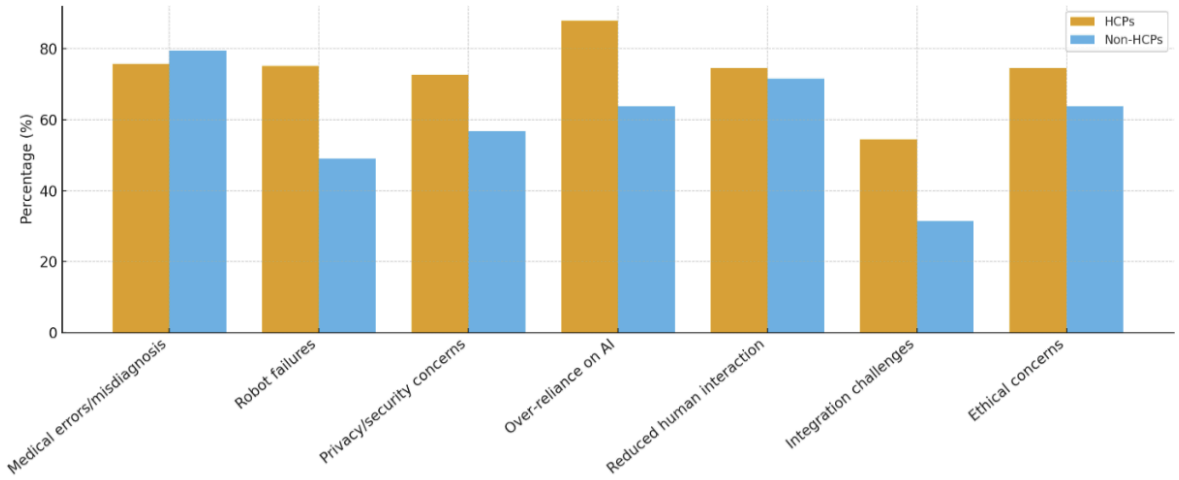
Survey Phase:

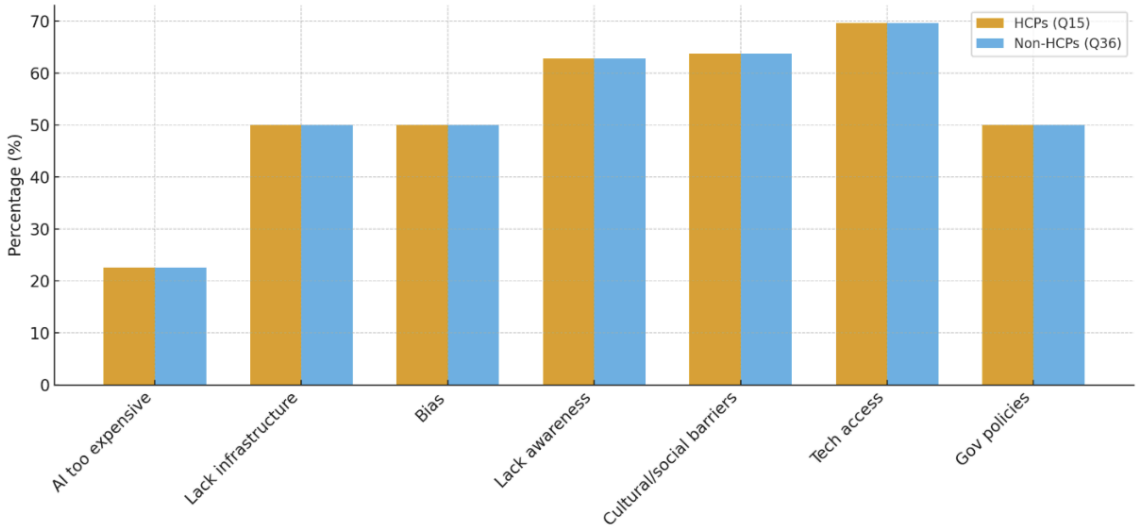
05/12/2025 – 10/01/2025:

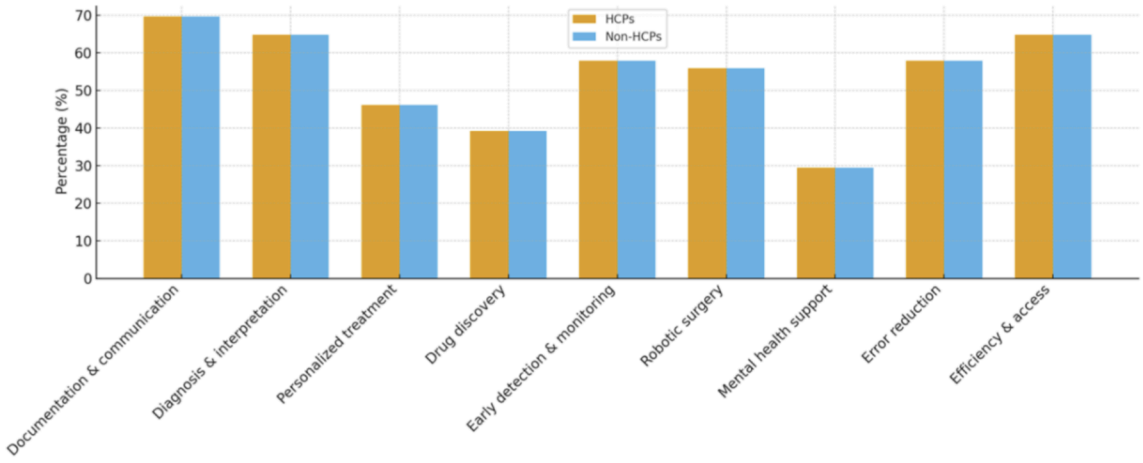
- Collected 300 responses to AI in Healthcare: Assessing Impacts, Equity, and Ethical Implications Survey
- Next entry: Collect Survey Results

10/09/2025:

- Download Survey results file







- Next entry: Analyze Survey Results

10/21/2025:

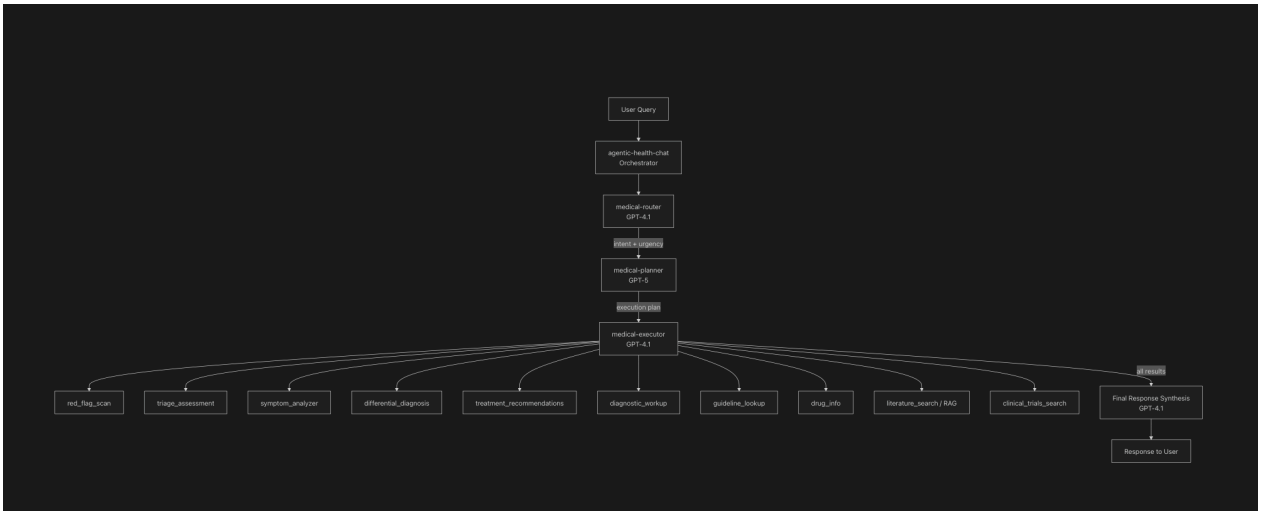
- Survey Results Analyzation:
  - The cross-sectional survey study included 297 respondents (63.6 % HCPs, 36.4 % non‑HCPs).
  - The largest age groups were 25–34 years (26.9 %) and 18–24 years (21.2 %); smaller proportions were 55–64 years (12.8 %) and ≥65 years (5.7 %). Gender distribution was balanced (50.2 % female, 47.5 % male, 1.7 % non‑binary/other).
  - Both HCPs and non-HCPs reported broadly positive perceptions of AI in healthcare. The majority of HCPs (64%) rated AI positively or strongly positively, compared with 50% of non-HCPs. Negative perceptions were uncommon in both groups (9% among HCPs vs. 13% among non-HCPs). Both groups agreed that AI improves efficiency, access, early detection, and diagnostic support, but HCPs selected significantly more benefit areas overall than non-HCPs ($p < 0.001$).
  - Both HCPs and non-HCPs identified several major risks associated with AI in healthcare, with the highest endorsements for misdiagnosis and reduced human interaction.
  - Both groups expressed generally positive views about AI's potential to improve healthcare access, though the strength of agreement differed slightly. Among HCPs, approximately 47% reported moderate-to-high agreement (agree or strongly agree). In comparison, non-HCPs showed a more optimistic pattern, with about 65% reporting moderate-to-high agreement.
  - Among HCPs, approximately 65% reported low trust (no trust or slight trust) in AI's ability to make fair and ethical healthcare decisions. Non-HCPs showed a similar pattern, with nearly 60% expressing low trust. The difference between groups was not statistically meaningful ($p \approx 0.68$ for overall distribution; $p \approx 0.49$

for directional differences), indicating that both clinicians and the public share similarly low confidence in AI's ethical reliability.

- Next entry: Build agentic AI and RAG capabilities

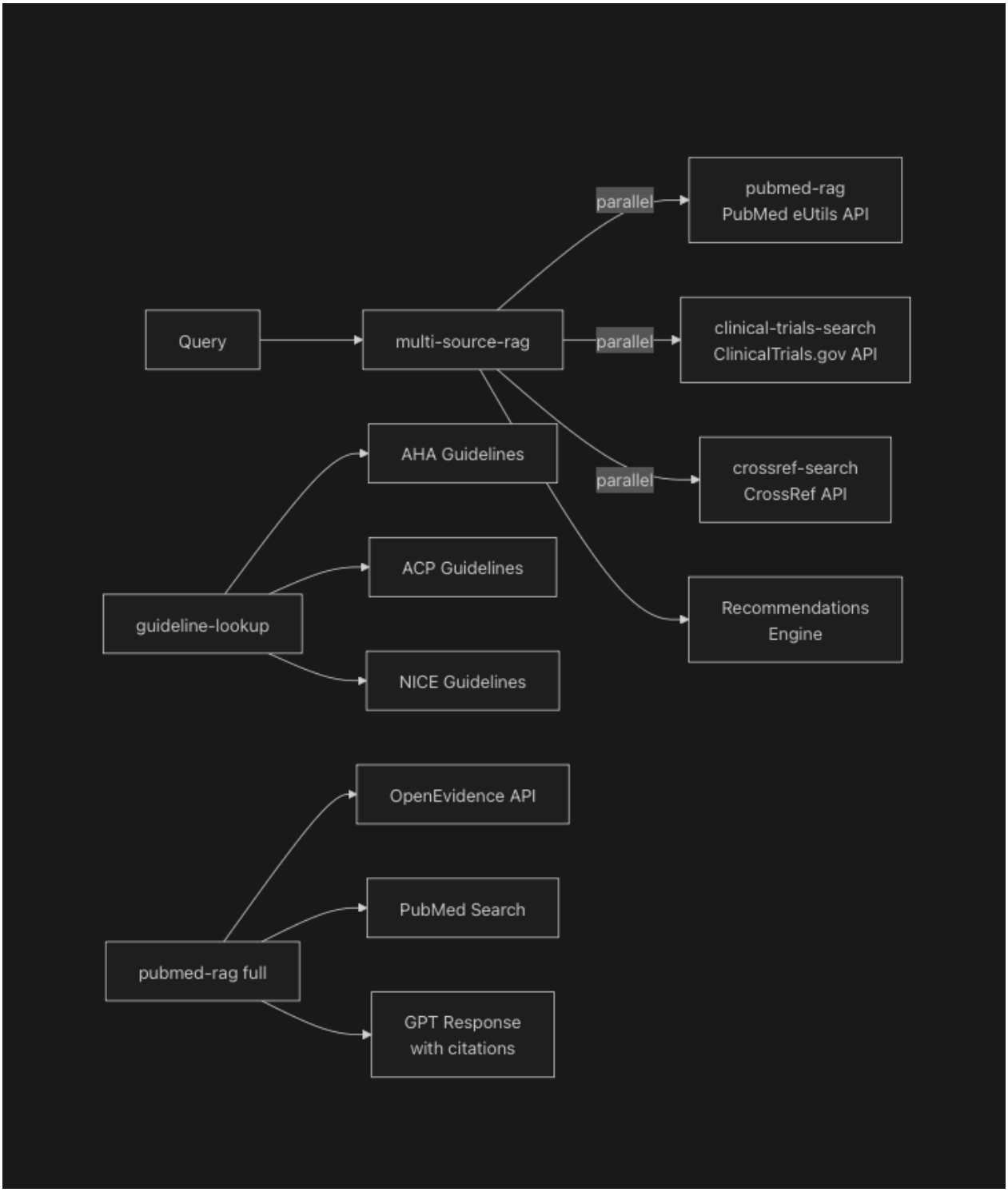
11/3/2025:

- Incorporated Medical Router, Planner, Executor, and Manager Agentic AI Pipeline
- Next entry: Add RAG functionality



11/12/2025:

- Added in RAG functionality, pulling from PubMed, CrossRef, AHA, NICE, ClinicalTrials.gov, and ACP



- Next entry: Test CliniKiosk against other models

12/18/2025:

- Finished testing CliniKiosk against GPT-4o, Claude 3 Opus, Mixtral 8x7B, and Gemma 3 12B