HLN CONSULTING
Innovators in Health Informatics

Drinking from a Fire Hose:

Leveraging Artificial Intelligence to Visualize Complex Public Health Workflows

Emily T. Schneider, MPH; Gita Prabhakar; Tammy Seithel; Kate McMahon; Erin Taylor-Jackson; Michael J. Suralik; Cathy Sripoonpak

In collaboration with the NYC Department of Health and Mental Hygiene (DOHMH)

NYC Health

Background

- ENVision: a project of NYC's Healthy Homes program
- Aim: to combine the functionality of multiple applications and organizational silos into one integrated tool
- Synthesizing months of stakeholder input across teams created an overwhelming volume of qualitative requirements

Methods



Across all AI-enhanced work: Human Review

Phase I: Transcripts to Structured Knowledge

Automated Capture
Recorded transcripts across multi-stakeholder interviews.

Contextual Meeting Synthesis
Synthesized key functional requirements from hours of discussion.

Human Verification
Analysts audited notes to confirm accuracy.

HLN CONSULTING

Phase II: Workflow Generation via Lucid AI

Automated Diagram Drafting

Converted text directly into workflow charts.

Standardized Notation

Unified visual styling across workflows and business units.

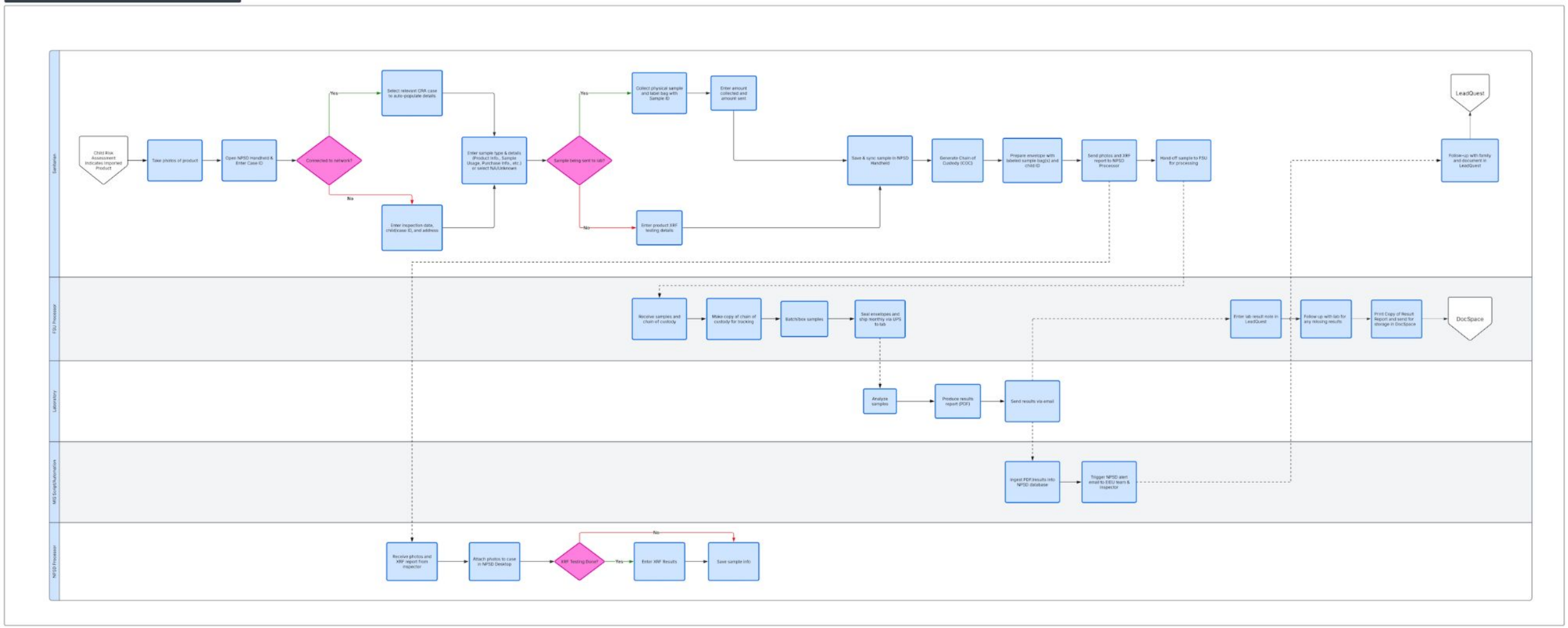
Analyst & NYC Team Review

Thorough review by analysts & stakeholders for accuracy.

Example Prompt: “Using the information from our meeting notes, create a basic business process flow diagram for an initial field visit inspection as described below.”

HLN CONSULTING

Sample Collection and Processing Workflow



Results

- Reduced manual effort required of analysts, allowing them to focus time on understanding current workflows and processes, rather than documentation
- Refinement of prompts was necessary to create consistent diagrams
- NYC partners appreciated the ability to view workflows and their intersections across business units
- Insights gained from the diagrams facilitated the development of functional requirements for the new application

HLN CONSULTING

Results

AI Strengths

Rapid synthesis across sources.

Instant diagram generation from text prompts.

Connections across siloed business units.

Human Governance

Verification of synthesized notes.

Iterative prompt refinement for consistency.

Translation into final software specifications.

HLN CONSULTING

Discussion

- AI shows promise in synthesizing and displaying information from complex systems
- Human refinement is required
- AI's ability to quickly draw connections across large data sets may accelerate analysis and allow public health agencies to more efficiently use limited resources.

Thank you!

Special thanks to all of our partners on the NYC Healthy Homes team

emily.schneider@hln.com

gita@hln.com