# Building a Strong Foundation for AI and ML in Healthcare

## Dispelling Myths and Embracing Active Management

There are several myths surrounding AI in healthcare. Some believe that AI can effortlessly extract insights from unstructured data or that simply dumping data into a lake is enough for AI to work its magic. Others assume that preparing data for one AI project means it's ready for all, or that having an AI partner eliminates the need for active data management. The reality is that AI requires ongoing attention. There are constant updates to lab codes, variations in data entry, and a continuous churn of systems that both create and ingests data. Continuous adaptation and mapping of these changes is vital. Having the ability to leverage focused data sets on sub populations of interest can also significantly reduce the overall platform and compute costs related to running AI models. A robust platform for building cohorts and data sets focused on specific, predictive data signals can also accelerate overall project timelines and time to value.

A truly effective AI and ML strategy in healthcare is equally about the algorithms and the data they consume. Before diving into AI projects, healthcare organizations must invest in the "picks and shovels" to effectively mine their data for the gold within. By doing so, they pave the way for AI and ML to transform healthcare with the promise of enhancing patient outcomes and operational efficiency.

The promise of artificial intelligence and machine learning in healthcare is tremendous, offering possibilities ranging from administrative process optimization and associated cost reduction to personalized treatment plans. Yet, for all the energy invested into these technologies, their success hinges on a foundational element that is often overlooked: the data. In healthcare, the 'iceberg effect' of data is profound—much of it lies beneath the surface, unseen yet critical. To leverage AI and ML effectively, a robust and clean data foundation is not just helpful; it's essential.

AI and ML are often seen as technological powerhouses ready to solve complex problems with ease. However, in the healthcare sector, where data is as complex as it is vast, these tools can only function optimally with a well-laid data foundation. Before healthcare systems can "bolt on" ML and AI solutions or run pilots with AI companies, they must ensure their data is unified and cleansed across both administrative and clinical datasets.

Applying AI and ML to health system data requires a unified approach that spans the chasm between different data types. This means bringing together multiple teams to manage and harmonize datasets, a process that sets the stage for all subsequent AI-driven initiatives. Without this step, AI projects—no matter how sophisticated—might progress at a snail's pace, hindered by fragmented and inconsistent data.

**On a recent episode of Data Pioneers (https://www.youtube.com/watch?v=180KXPJxaE8), Kristyn Vermeesch and Dr. Robert Jarve talked about how analytics will make or break an organization in their transition to value-based care, but a trusted data foundation is where it all starts. This will enable organizations to effectively invest in more advanced capabilities including AI/ML.**

Just as a car cannot run without gas, AI cannot operate without data. But not just any data will do. It needs to be processed, code-value mapped, and intelligently grouped. In healthcare, this entails connecting disparate pieces of information—from claims to clinical notes—and transforming them into a consistent and interpretable format. This foundational work ensures that AI tools and teams can focus on creating value, rather than being bogged down by data preparation.

Once the data is prepared, a consistent and uniform access layer is crucial. This allows for the necessary data elements to be readily available to both internal teams and external AI partners. An effective data strategy ensures that AI professionals spend their time deriving insights and building models, flipping the traditional paradigm where 80% of the time is spent on data cleansing and joining.

## ABOUT RICH WALLER

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Rich is a technology executive and entrepreneur dedicated to serving teams that are passionate about creating information architectures that drive brilliant, multi-channel user experiences. He believes that growth strategy is a team sport, and only comes by putting the client in the center of the experience.