

Accelerating digital and cloud-native platforms to address health equity challenges of U.S. veterans

HCLTech helped develop a bespoke health management platform to improve healthcare outcomes for millions of U.S. Veterans

An emerging U.S.-based digital healthcare system provider sought to reimagine its digital engagement platform to support medical practitioners and other healthcare providers in addressing the long-term healthcare outcomes of veterans and their families. The new platform was envisioned to provide high-quality education, credentialing, community outreach and market relationship support.

The company chose HCLTech as an advisor and transformation partner due to its comprehensive understanding of and experience in the American healthcare ecosystem, in addition to its proven technology expertise in digital, cloud, analytics and compliance. By integrating its efforts with the client's operational goals, HCLTech the digital engagement platform and delivered tangible benefits across the client's entire solution pipeline.

The Challenge:

Serving the unaddressed healthcare needs of American veterans

The veteran community comprises about 75 million Americans, nearly a quarter of the U.S. population. They suffer a disproportionate predisposition to chronic health conditions and have a unique cultural identity. This group represents approximately \$300 billion in health insurance costs every year and receives most of the healthcare in civilian facilities. However, civilian providers are uniformly unaware of, untrained in and unprepared to deliver the equitable standard of care veterans require. As a result, veterans suffer poor diagnostic outcomes and a high rate of medical readmissions, which costs facilities and payers millions of dollars every year while depriving millions of American veterans of the high-quality healthcare they deserve.

To resolve this injustice, the client was determined to co-create a revolutionary digital engagement platform that supports the healthcare system in improving health

outcomes for veterans. The client's approach required a detailed focus on the sociocultural determinants of health for veterans, so it could equip all stakeholder groups – hospitals, medical personnel and non-medical staff – with the skills and information necessary to improve long-term health outcomes when treating veterans and their families.

The client was struggling to achieve this goal due to challenges in defining an appropriate technology architecture to support its business, scalability and compliance requirements. A crucial part of the challenge was the inherent difficulty of managing a complex data analytics lifecycle, especially one reliant on multiple governments and commercial data sources.

Furthermore, the platform required features such as front-end UI/UX, report generation, data dashboards, monitoring tools, health tracking, decision-making insights and data compliance.

The Objective:

Build a health management platform to connect and coordinate care across healthcare providers

The client wanted to create a digital health management platform that would empower managers with data and analytics, allow managers to create multiple population cohorts, support appropriate care pathways and engage relevant provider communities to improve health outcomes. To do so, the platform had to enable the mapping of veteran communities based on health access parameters such as zip code, county, state, demographic data and more.

The platform also had to include a learning management system (LMS) that delivers Continuing Medical Education/Continuing Education (CME/CE) accredited education and training directly at the point of care. This

convergence of the platform with an LMS would help commercial health systems and providers establish themselves as trusted healthcare partners for the veteran community. Beyond helping veterans this new platform would also; it would also help commercial health providers expand their market share in the veteran healthcare industry.

To benchmark and track the quality of care, the new platform needed to support reporting and dashboarding by offering out-of-the-box and ad hoc insights.

Finally, to succeed, the platform had to win buy-in and strong engagement from commercial health providers and induce them to participate in the learning certification program.



The Solution:

End-to-end consulting, advisory and technology transformation

The client understood that HCLTech, with its healthcare domain expertise and proven capabilities in digital, cloud, analytics and healthcare compliance, was the right technology partner for this platform transformation.

HCLTech began by deploying business consulting and technical teams to help the client's team convert complex business requirements into a simplified transformation roadmap for a robust and scalable digital architecture. HCLTech's consulting team and UX experts navigated the business requirements using design thinking, rapid prototyping and visual design wire-framing to re-engineer the platform to provide a modern UX that engages care managers, healthcare providers and program administrators.

HCLTech's business analyst team investigated and restructured incoming data sources to understand their formats, frequency, data quality, field taxonomy, interdependencies and data treatment based on prevailing compliance requirements in a comprehensive data architecture.

HCLTech helped the client prioritize application features and functionalities, while adopting a fully integrated solution suite that combined sophisticated data and decision science, CME/CE accredited education and training and robust outreach tools.

With a well-defined technology roadmap, HCLTech delivered a scalable, adaptable and easily implemented solutions stack.

To help the client scale on demand, HCLTech leveraged the solution innovation from HCLCloudSmart and its Microsoft cloud expertise to build components on Azure-native PaaS platform services. Custom-built automation tools ensured seamless data sharing. Azure Data Factory (ADF) pipelines were leveraged in gathering five years of veterans' healthcare data. By using Microsoft Azure FHIR and API services, the team created a robust integration and interoperability layer capable of scaling to millions of daily transactions and interfacing with hundreds of outside data sources.



The Impact:

Improved clinical outcomes for millions of American veterans

HCLTech quickly became an essential business and technical partner who could be counted on to supercharge the client's business objectives with a sound digital strategy, responsive service support, accelerated outcomes and tangible business benefits.

With HCLTech, the client:

Deployed a highly scalable Azure-based digital health management and engagement platform that supports millions of American veteran

Launched a platform that is instrumental in educating a large number of healthcare providers via its comprehensive CME/CE accredited e-learning program

Provides in-depth insights to identify geographical gaps in services where veterans experience a severe lack of healthcare access

Ensures real-time monitoring and engagement of commercial healthcare providers to improve the quality of care

Delivers rapid resolution to veterans' problems with a targeted approach for onboarding healthcare providers on a priority basis

Ultimately, HCLTech helped the client achieve its core objective of a bespoke data management platform that improves healthcare outcomes for millions of veterans. In the process, it helped the client optimize healthcare training and certification programs and enabled healthcare providers to expand their market share.