PERSPECTIVE

Building the Future of Health and Human Services Technology

Infosys
Public Services
Health and Human Services (HHS) organizations are running full throttle. Having navigated the complexities of compliance with the Affordable Care Act (ACA), they now need to address increasing citizen demand for health and social programs at lower costs. Insights and innovation can help address these imperatives quickly and cost-effectively, but HHS organizations’ existing technology foundation doesn’t offer the adequate support.

Effective management and administration of more than 80 social programs, including Medicaid, using disparate legacy systems that are over 25 years old, is not easy. The federal government has finalized 90/10 funding for Integrated Eligibility Systems (IES), and extended the Office of Management and Budget (OMB) A-87 cost allocation exception. This, along with funding for Medicaid Management Information Systems (MMIS), provides the resources needed to modernize Health and Human Services’ systems. This funding and effort can be leveraged to create a Health and Human Services technology foundation of the future, enabling new capability to be extended as time, money, and organizational change capacity allows.

Re-thinking IT to build the future of Health and Human Services technology

Medicaid Information Technology Architecture (MiTA) capabilities and modern technologies can be used beyond the Medicaid enterprise. Master data, meta-technologies, data federation, and Service Oriented Architecture can be used to integrate today’s systems, ease improvements or replacements in the future, and provide a longitudinal view of the citizen data. Different approaches to building this infrastructure exist, and the needs of states differ.

MITA and National Human Services Interoperability Architecture (NHSIA) provide guidance on foundational needs for HHS architecture, including business-driven, service-oriented, and componentized frameworks. These frameworks need to be assessed in light of existing technologies, and the IT strategy of both, the Human Services enterprise and the state’s technology plan. While it is true that the technology built for HHS can be leveraged for multiple programs (such as Cash, Food, Medical Assistance, Child Welfare), it can also be leveraged at the state enterprise level. For example, Master Data Management (MDM) is a solution that can build identity resolution and data quality beyond the Health and Human Services realm. A solution implemented to meet a particular project need, can become an enterprise platform over time. Decisions made for specific projects and programs can have a state-wide implication.
Key technology imperatives to build the future of Health and Human Services technology

Each state is operating at a different level of technological sophistication, and is working to address local and nation-wide technology trends. These trends are partially due to outside influences, such as the growth of cloud services and social media, and lifecycles of state systems, such as an aging, legacy-system infrastructure. HHS organizations need to adopt these trends/technology imperatives, synthesize them with their existing systems, and continue to evolve their technology landscape to be able to deliver improved care and outcomes. The key trends that HHS organizations need to embrace in 2015 and beyond, to create the future of Health and Human Services technology include:

- **Modernization**: HHS organizations need to replace legacy (generally mainframe) systems. This involves transforming computing systems largely reliant on paper processes, to fully automated solutions incorporating electronic applications and externalized rules-based processing. This effort seeks to transform the HHS enterprise towards level-5 Medicaid Information Technology Architecture (MiTA) compliance.

- **Extending Integration**: This generally starts for human services programs (beyond Medical, Food, and Cash Assistance to areas such as Homeless Assistance). The goal is to reduce process friction between systems; to facilitate the replacement of worker-centric and paper-based processes, with automated, digital processes; to reduce cost, time, and effort, as well as increase citizen satisfaction.

- **Building Data Integration**: Data analytics capabilities and data warehousing supports operational analytics, and the prevention of fraud, waste, and abuse. Today’s lack of consolidated data results in data duplication, and erroneous conclusions, that lead to regulatory non-compliance and extra cost. Data integration capabilities and data warehouse implementations speed the path to digital transformation, by providing the data needed to manage the increasing number and size of data sources in the transforming human services IT environment. A unified view of a citizens’ program participation and data profile helps provide the best services to the citizen while uncovering any fraud, waste, or abuse.

- **Medicaid Management Information Systems (MMIS)**: As states move through the benefit lifecycle from application, eligibility determination, and program management, the next step is the day-to-day operation of Medicaid claims payment. Building on MiTA-compliant foundations, MMIS can be updated and streamlined to gain efficiencies, increasing worker productivity and reducing the cost to operate the Medicaid program. Modular architecture allows incremental growth on an existing foundation, enables use of shared services, and eliminates duplication between programs.

- **Increased Use of Meta-Data**: HHS organization need to enable integration between programs and agencies through the use of Master Data Indexes, Master Data Dictionaries, Master Citizen Indexes, etc. Digital transformation is accelerated when systems of different capabilities and data needs, all participate to the extent possible – some as data providers, some as data consumers, and some as both. Use of meta-data avoids costly point-to-point integrations and centrally driven integration strategies, speeding adoption by allowing systems to integrate at their pace, while not forcing integration upon them. An example of this is the use of Master Data Indexes to enable federated reporting across disparate systems, without having to consolidate data in a single data warehouse.
Conclusion

Each state brings a unique environment and capability set, to enable its modernization of the Medicaid enterprise. Continued funding, and alignment with key technology trends, helps assure a cost-efficient path to achieve efficiencies today, and build a foundation for the future. Having navigated the complexities of compliance with the Affordable Care Act (ACA), the time is right for HHS organizations to rethink the way they adopt and leverage IT to deliver improved care, outcomes, and costs.