



# Leveraging MMIS for HIE



## Highlights

- Connects to National Health Information Network (NHIN)
- Allows for early wins and successes
- Utilizes existing infrastructure where possible
- Facilitates data sharing under "meaningful use"
- Utilizes open source adapters and connectors
- Extends the data model to represent the Health Level Seven (HL7) Reference Information Model (RIM)
- Coherent client record with a 360 degree view
- Supports standard and non-standard data exchange formats

## Overview

Today's Medicaid agency is responsible for much more than just providing for medical services for the disabled and disadvantaged. With newfound responsibilities - under the American Recovery and Reinvestment Act (ARRA) and the Patient Protection and Affordable Care Act (PPACA) - the states are now responsible for facilitating data exchange amongst Health Information Organizations (HIO) and providers. This facilitation is necessary in order for providers to meet the data capture and sharing requirements of "meaningful use" of "certified Electronic Health Record (EHR) technology," as mandated by the healthcare reform deadlines.

In trying to keep up with the necessary data sharing in today's health environment, providers and payers are beginning to explore ways of sharing health data across regions, providers, payers, public health agencies and other stakeholders in the healthcare continuum.

Specifically, state Medicaid agencies must look at ways to leverage their existing systems and infrastructure in order to meet these new responsibilities and initiatives.

Our approach to this challenge is to work from the "inside out." By modernizing an existing Medicaid Management Information System (MMIS) to create a robust foundation and platform for Health Information Exchange (HIE), an agency can take the first step to creating the data sharing environment required to move forward with these new responsibilities and initiatives.

As a first step to transitioning to an HIE platform, we recommend upgrading the existing MMIS to utilize an Enterprise Service Bus (ESB) backbone. Once this platform is created, the agency will have to monitor standards and best practices as they evolve, and iteratively absorb them into the platform. This ESB can then be utilized to act as an exchange infrastructure within the state's healthcare agencies. The Medicaid Information Technology Architecture (MITA) provides some guiding principles on how this should be accomplished.

By taking data from other agencies within the state, the agency can integrate this data with their current recipient information and use this early implementation as a unit of analysis to determine the efficacy of the implementation.



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## CNSI Solution Features and Benefits

CNSI's solution begins with a service registry and logical isolated space. This service registry utilizes a rich portfolio of open source connectors such as those written for Sun Microsystems's Identity Management and contains services such as longitudinal records and a client locator service. The service registry also extends the data model to represent the HL7 RIM model.

CNSI's solution also creates a coherent client record with a 360 degree view which evolves as additional data sources are added. This holistic view allows service subscribers to gain a complete understanding of the client before services are rendered, thus decreasing duplicative services and waste. For instance, the record can store and publish current and past prescriptions in chronological order through a connector to pharmacy systems. Should a physician access this service, they could prevent cross-prescribing and drug-to-drug interactions at the prescriber point of service (POS) rather than at the pharmacy POS. Some other examples include case worker treatment plans, assessments and other relevant progress notes collected at different delivery points. By combining all of this information with patient centered clinical data, you can see that a complete record is built for an individual's interactions with the health care continuum.

When subscribing to these services, we have the capability to publish the data in a multitude of ways. For instance, many providers may want an XML-enabled word processing document so that the data is viewable in a readable format in their own systems. However, if the subscriber has a complex system that will parse the data for its own consumption, CNSI has the capabilities of making the data available in an HL7 Clinical Document Architecture (CDA)-compliant document.

### HIE Inside-Out Approach

