
Part I – BUSINESS ARCHITECTURE

Appendix A – CONCEPT OF OPERATIONS DETAILS



Introduction

The MITA Framework provides guidance to the State Medicaid Agency (SMA) as they seek to improve their business operations and supporting Information Technology (IT). Because of the range and complexities of business conducted by the SMA, models and diagrams show the transformation from the As-Is operations to the To-Be environment at a high level, and examples that show more detail in specific business processes.

States should develop a Concept of Operations (COO) and business workflows for the different business functions of the state to advance the alignment of the state's capability maturity with the MITA Maturity Model (MMM). The COO and business workflows should align to those provided by the Centers for Medicare & Medicaid Services (CMS) in support of Medicaid and Exchange business operations and requirements. States should work to streamline and standardize these operational approaches and business workflows to minimize customization demands on technology solutions and optimize business outcomes.

The objective of this section is to describe the Medicaid Enterprise from a business perspective, identify the primary external entities (e.g., providers, beneficiaries, other payers), their roles, and the information they exchange, and depict the primary business processes (e.g., Member Management, Provider Management) performed by the Medicaid Enterprise in support of its interactions with external entities.

There are two (2) views presented: the As-Is operations of the Medicaid Enterprise, and the To-Be environment of the Medicaid Enterprise. Two (2) types of diagrams support these descriptions:

- ❖ A **Context Diagram** showing the major external entities and the information they exchange with the Medicaid Enterprise in the As-Is operations and the To-Be environment.
- ❖ A **COO Diagram** that expands on the Context Diagram. It describes the business operations and stakeholders of the Medicaid Enterprise. There are As-Is operations and To-Be environment views.

Together, the Context Diagram and the COO Diagram show the transformation of the Medicaid Enterprise. The COO also describes the primary drivers that enable the transformation. These first descriptions are high level. Next, examples of selected business processes illustrate details of the transformation.

The following storyboard describes the flow of the COO with the Medicaid Enterprise as a subset of a national health information infrastructure.

- ❖ Current Medicaid operations include a number of business processes that support the SMA responsibilities and interface with its primary business partners (beneficiaries, providers, and other stakeholders). There are many deficiencies in the current operations:
 - Administrative burden
 - Time lags
 - Labor intensive processes
 - Lack of standardized, consistent, and complete data

- Redundant services and data collection
- Lack of clinical information
- Limited collaboration among the many entities that serve the population (e.g., Medicaid, Medicare, substance abuse, mental health, public health, and others)
- ❖ Future operations benefit from the vision of improvements attainable in the national health care delivery system supported by the advances of technology, the enforcement of standards, and the use of the Electronic Health Record (EHR).
- ❖ The Context Diagram illustrates the As-Is operations. The SMA exchanges primary information with its major partners, e.g., eligibility sources send eligibility information, providers submit claims, checks are “in the mail”, and the SMA produces reports on a schedule “whether you want it or not”.
- ❖ A companion To-Be Context Diagram shows a different future view. In the near future, notifications of new information, automatically sent to the appropriate receiver and triggered by entries into the patient’s EHR, replace transactions (e.g., claims and eligibility requests).
- ❖ To illustrate the differences between the As-Is operations and the To-Be environment, tables show how the definition and the role of the primary entities (e.g., the SMA, provider, beneficiary, etc.) will change in response to the changes in the way the SMA will exchange information as well as the content of the communication.
- ❖ The MITA team examines today’s COO, which includes stakeholders, IT support, policies and procedures, and traditional activities the SMA conducts.
- ❖ A narrative highlights the changes in the Medicaid Program with the Seven Standards and Conditions, which align with the MITA Missions and Goals. These principles provide the target of operations in the near future.
- ❖ To show the future transformation, the COO provides some examples of business improvements in operational scenarios. Several examples illustrate how to move from the As-Is operations to the To-Be environment.

As-Is – High Level Narrative

Currently, the Medicaid Enterprise contains several primary entities whose relationships and information exchanges have evolved since Medicaid’s inception in 1965 through the Title XIX of the Social Security Act. Major participants in the Medicaid Enterprise are: CMS, the SMA, sources of eligibility determination, providers, managed care organizations, beneficiaries, other agencies, and other payers. Title XIX of the Social Security Act created the national Medicaid Program to bring health care benefits to individuals meeting financial, age, and disability requirements. Federal funding matches state expenditures for approved benefits and administrative services. Each state, territory, and the District of Columbia (hereinafter referred to as the States) designate a single state agency to administer the program. The SMA pays providers, managed care organizations, benefit managers, and others to deliver a package of mandated and optional benefits to the covered population.

The primary influences on the Medicaid Enterprise are:

- ❖ Federal, state, and local legislation
- ❖ Federal and state health care initiatives
- ❖ Provider and consumer advocate demands
- ❖ Court orders
- ❖ Influence of the American health care delivery environment
- ❖ Funding
- ❖ Vendor solutions

The Medicaid Enterprise is part of a loosely structured local and national health care infrastructure with which it shares providers, consumers, treatment protocols, data standards, health improvement objectives, public health reporting, and information.

Health care represents a significant percentage of the Gross Domestic Product (GDP) in the United States; yet this business sector lags behind all other leading economic cost centers in the adoption of technology to improve its outcomes and manage its expenditures.

To-Be – High Level Narrative

The MITA Framework defines a future in which health care stakeholders (e.g., policy makers, tax payers, consumers, providers, public health and oversight agencies, and health plans) participate in achieving the objectives of improving health outcomes of the population served by providing the right services at the right time at the right cost in a timely and accountable way. Stakeholders are able to apply for health assistance and receive an eligibility determination in real-time. Stakeholders benefit from improvements in information sharing and exchange that enable caregivers, payers, and patients to view appropriate clinical information without delay and use this information to make appropriate health care decisions. Providers and payers are able to focus on their primary functions of care giving, benefit plan monitoring, and evaluation as most of the administrative burden of information capture, processing, and reporting are obsolete with the usage of direct messaging between data exchange partners.

Realizing these benefits requires an underlying infrastructure that can support the use of patient-focused electronic health information, and information that goes beyond the limitations of a specific provider, health plan or delivery system. It also includes the process of sharing health-related information in a secure manner, protecting the confidentiality of the information. The building blocks associated with this infrastructure are the Electronic Medical Record (EMR) and EHR for health care professionals, Personal Health Record (PHR) for individuals, and Health Information Exchange (HIE) used to tie the infrastructure together. A Regional Health Information Organization (RHIO) organizes all of these components into a local infrastructure.

Aggressive federal initiatives to improve the quality of care as well as streamline the administration of health services are influencing the Health Care and Health Insurance industries. Relevant federal regulations such as Health Insurance Portability & Accountability Act (HIPAA) of 1996, American Recovery and Reinvestment Act (ARRA) of 2009, Health Information Technology for Economic and Clinical Health (HITECH) of 2009, Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009, and the

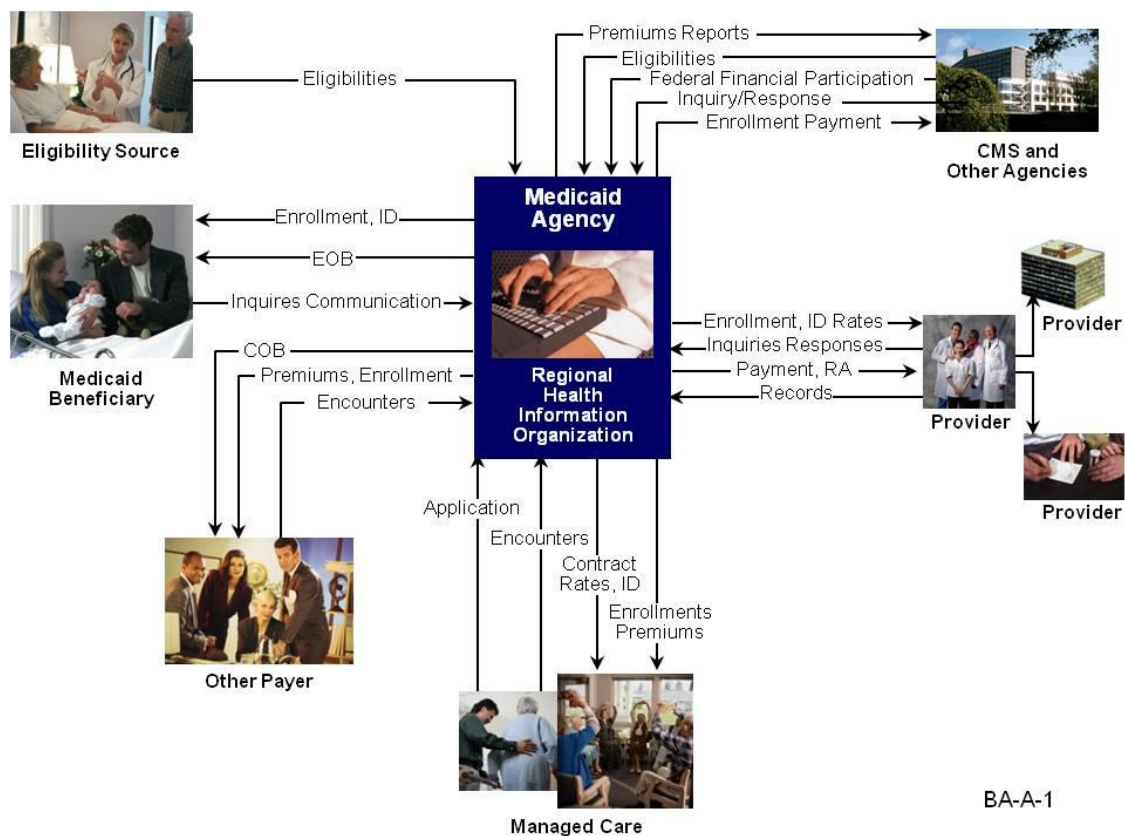
Affordable Care Act of 2010, (among others) are changing the administration of health care and insurance. It is vital that the MITA Framework supports the changes in securing information, sharing resources and enhancing the stakeholder's experience.

Context Diagram Medicaid Operations

The Medicaid Enterprise Context Diagram presents a conceptual view of the external entities with which the SMA interacts. External entities are conceptual groupings of individuals or organizations based on the role the entities have with the Medicaid Enterprise. The Context Diagram shows only entities with significant and unique roles that interact with the enterprise. The Context Diagram tightly links to the Business Process Model (BPM) as the diagram depicts the primary actors and activities, which a Medicaid Enterprise includes. The diagram associates exchange (i.e., input and output) of information with external entities to one or more processes within the BPM.

As-Is Context Diagram

The Medicaid Enterprise As-Is diagram, **Figure A-1**, illustrates the primary entities (e.g., providers, beneficiaries, CMS, and other payers) and gives a high-level view of the information they exchange. It depicts the SMA and its primary data sharing partners in their current roles.



BA-A-1

Figure A-1. Medicaid Enterprise As-Is Context Diagram

As-Is Context Diagram Description

The Medicaid Enterprise As-Is Context Diagram depicts activity for the SMA that:

- ❖ Enrolls providers and contracts with Managed Care Organizations (MCO) and reimburses for services based on fees and rates.
- ❖ Receives eligibility information from sources of eligibility determination and CMS.
- ❖ Sends Medicaid benefit and service information and identification numbers to the beneficiary.
- ❖ Enrolls beneficiaries with MCO and Primary Care Physicians (PCP).
- ❖ Sends premiums payments to MCO, other payers, and CMS.
- ❖ Receives funds from CMS.
- ❖ Recovers payments from other payers and providers.
- ❖ Receives and pays claims.
- ❖ Receives encounter data from MCO.
- ❖ Responds to inquiries from providers, beneficiaries, other agencies, and CMS.

The As-Is Concept Diagram displays only the primary entities and the information they exchange (e.g., provider, beneficiary). In particular, it does not include business associates (e.g., fiscal agent, clearinghouse, enrollment broker, third party recovery contractor). Other interactions that occur between providers, beneficiaries, and other agencies external to the SMA may also impact the Medicaid Enterprise, e.g., one provider refers the beneficiary to another provider, or another agency administers a program that serves the Medicaid beneficiary.

In the As-Is operations, the most automated of the information exchanges are electronic claims and eligibility inquiries. Most of the other communications are still manual (paper posted to the United States Postal Service (USPS), facsimiles, telephone calls, and voice response). Some claims submissions, eligibility inquiries, and enrollment information exchanges now use Internet services. The retail pharmacy component of the health care delivery system is the exception. It has streamlined its operations through early adoption of electronic data interchange standards that include eligibility inquiry, service authorization, benefit coverage, and claim adjudication in a single, real-time session.

Health care delivery in the U.S. is a complex and loose structure composed of different providers, benefit plans, and payment mechanisms. It depends on timely and accurate exchange of clinical and administrative data. While the health care available in the U.S. is of the highest quality, the health care data exchange does not meet the same standards of excellence. For many years, the structure of health care information exchange in the U.S. is lacking, making information exchange quite unstructured, inefficient, slow, and mired in redundant paperwork and reporting. The Medicaid Enterprise provides leadership in solving the problems of information exchange but suffers from many of the inherent inefficiencies. For example, information about health status and outcomes is incomplete or absent, untimely, and inconsistent, which impedes the agency's ability to implement policies to prevent illness and treat disease effectively. Some reasons for this situation are:

- ❖ Many provider offices and payers' files separately store information about an individual's health status and services received.
- ❖ To assemble even a small amount of this information into a consolidated profile of the beneficiary's health record, even if possible, is time-consuming, labor intensive, and costly, and the results expose widespread inconsistencies in the data collected.
- ❖ Limited and unstructured clinical information, which is the best data for health outcome studies, is untimely and expensive.
- ❖ Automated payment- related transactions are the primary source of data for health outcome studies; however, there are many other types of unstructured, untimely, and inefficient communication.

Other characteristics of the current Medicaid Enterprise are:

- ❖ Individuals find out about the Medicaid Program and apply for benefits at a limited number of special locations. This is inefficient and impedes access to assistance.
- ❖ There are numerous, uncoordinated benefit plans for which individuals may be eligible. This is highly inefficient and leads to “wrong care, wrong time, and wrong price”. Beneficiaries will “follow the money”, moving from program to program for services rather than having service plans established that optimize continuum of care.
- ❖ Individual providers cannot easily view the patient's clinical history from other providers, leading to patient safety issues and mismanagement of resources.
- ❖ Referrals are manual and stakeholders do not communicate in a timely manner, thereby impeding access to care.
- ❖ Patients randomly communicate compliance with the treatment plan to the provider because they have few avenues for participating in decisions regarding their own care and contributing to their personal health record.
- ❖ The Medicaid Program cannot make timely policy decisions or develop accurate budget projections because the data it accesses is untimely, non-standard, and incomplete. The primary source of data is claims-based transactions, which are a poor substitute for clinical data. Other beneficiary data required for policy analysis, such as demographic, employment, education, vital statistics, and criminal justice sources is difficult to assemble.

The COO shows further details regarding the As-Is Medicaid Enterprise following the To-Be Context Diagram in a series of comparisons of the current and future environments.

To-Be Context Diagram

In the Medicaid Enterprise To-Be Context Diagram, **Figure A-2**, the role of the business associates (e.g., fiscal agent, clearinghouse, enrollment broker) diminishes and disappears as the stakeholders implement changes. During the transition period, these associates will continue to support As-Is operations. Upon completion of the transformation, the stakeholders have optimized all administrative functions resulting in dramatic reduction in the allocation of resources to these operations. To-Be COO presented later in this document further illustrates this reduction in administrative burden.

NOTE: Due to the regulation rule-making efforts underway at CMS, the MITA Framework 3.0 does not include the Eligibility & Enrollment (Member), the Member Management business processes or business capability matrices, and a portion of the Concept of Operations (COO) outlining the “to-be” for eligibility, enrollment, and insurance exchange information. CMS will update the MITA 3.0 Framework with appropriate information from the final rules in 2012.

Figure A-2. Medicaid Enterprise To-Be Context Diagram

Narrative Description of the To-Be Context Diagram

NOTE: Due to the regulation rule-making efforts underway at CMS, the MITA Framework 3.0 does not include the Eligibility & Enrollment (Member), the Member Management business processes or business capability matrices, and a portion of the Concept of Operations (COO) outlining the “to-be” for eligibility, enrollment, and insurance exchange information. CMS will update the MITA 3.0 Framework with appropriate information from the final rules in 2012.

Definition of Primary Actors

In the Medicaid Enterprise there are a small number of primary participants who exchange information critical to the operations and success of the program.

Table A-1 identifies the primary actors, describes their role in the As-Is operations, and highlights the changes that occur in the To-Be environment.

Table A-1. Definition of Primary Actors

Primary Actors Defined		
Primary Actor/As-Is	To-Be	Change
All Participants – responsible for administrative data collection, transaction exchange, and reporting activities that are difficult to manage	Participants are free from administrative data processing and focus on their primary functions.	Providers focus on prevention and care giving. Beneficiaries participate in health improvement. Agencies focus on quality, outcomes, and strategic planning. EHR information dynamically shared through a local Health Information Exchange (HIE), which improves administrative efficiencies and promotes better health outcomes.

Primary Actors Defined		
Primary Actor/As-Is	To-Be	Change
SMA – By law, the designated single state agency responsible for administering the SSA Title XIX medical assistance program (Medicaid)	The single state agency collaborates with intrastate agencies, the interstate and federal agencies through information exchange agreements.	The SMA creates “no wrong door” for applicants and aligns individuals with coordinated services to optimize health outcomes through flexible programs. The SMA focuses on achieving program efficiencies and accountability, and contributes to safeguarding the health of the population. Manual operations diminish significantly; enhanced strategic functions. The SMA has immediate access to all appropriate information available for strategic planning, outcome measurements, and oversight. System-to-system communications replace manual operations.
Information Interchange Hub – Conduit for information exchange between participating providers and agencies. (Clearinghouses, switches, Value Added Networks, and state implementations of translator middleware perform some Hub functions)	Health Information Exchange (HIE) – Community or regional health information networks serving as a conduit for health information interchange, including immunization and disease registries, for the subscribers.	The sharing of information across the enterprise improves Healthcare outcomes. Local/regional Health Information Exchange (HIE) connect to each other creating the Nationwide Health Information Network (NwHIN). The Health Information Exchange (HIE) routes requests for information and responses across all participating beneficiaries.
Centers for Medicare & Medicaid Services (CMS) – A branch of the U.S. Department of Health and Human Services (HHS). CMS is the federal agency that administers Medicare, Medicaid, and the Children’s Health Insurance Program (CHIP). CMS provides information for health professionals, regional governments, and consumers.	The Federal Medicaid Enterprise – defined as collaboration among HHS agencies that exchange information with State Medicaid Enterprises.	Federal agencies collaborate to improve health outcomes nationally. Federal agencies implement information exchanges that include the SMA, or, at a minimum, enter into agreements to participate in State Medicaid Enterprise exchanges.
Beneficiaries – Applicants for state Medicaid Program benefits	Applicants for state Medicaid Program benefits coordinated with other programs (e.g., Medicare, CHIP, and Basic Health Plan).	Beneficiaries participate in their health care regimens and benefit from “no wrong door” and administrative efficiencies. Benefits follow the person;

Primary Actors Defined		
Primary Actor/As-Is	To-Be	Change
		beneficiaries take proactive part in managing their health care benefits by self-directing their care. The system applies standardized business rules definitions for application verification, eligibility determination, and coordination of benefits.
Providers – Providers of services including pharmacists, case managers and home and community-based caregivers serving the Medicaid population	The Health Information Exchange (HIE) links eligible providers to each other and the patient populations. The EHR Provider Incentive Payment Program Registration and Attestation (R&A) System maintains provider information based on the National Provider Identifier (NPI).	Providers are free from administrative functions (e.g., eligibility and service authorization requests, claims preparation) and can concentrate on the delivery of care, patient education, and prevention. Primary, referring, tertiary providers communicate with each other via the Health Information Exchange (HIE). Appropriate information is available on demand, which reduces redundant data storage. The Health Information Exchange (HIE) enables authorized providers' EHR systems to access patient identification, demographics, program-specific benefits, treatment history and clinical protocols.
Managed Care Organizations (MCO) – Corporations who contract with the SMA to provide enrollees a defined set of services for a fixed per-beneficiary-per-month payment Exchange eligibility information via Accredited Standards Committee (ASC) X12 834 Benefit Enrollment and Maintenance transaction	MCO and their contracting providers share clinical information via the Health Information Exchange (HIE). MCO receives Medicaid enrollment information online, real time, and 24x7 from the Health Insurance Exchange (HIX). The SMA immediately deposits Premiums payments into the MCO's bank.	MCO encounter and clinical information is immediately available to the SMA from the Health Information Exchange (HIE). Appropriate information is available on demand to facilitate ongoing, real-time monitoring of: (1) case-mix to support immediate premium adjustments; (2) contract compliance; (3) access to services; and (4) provider network adequacy.
Other Payers – Other benefit programs with liability to cover medical costs for Medicaid beneficiaries	Other benefit programs share benefit coverage with Medicaid. Automatic business rules embedded in programming code to perform coordination	The various programs' eligibility, benefits, treatment histories, and clinical protocols required for payment are available to the providers' EHR systems during a patient encounter. The payers send

Primary Actors Defined		
Primary Actor/As-Is	To-Be	Change
	of benefits.	payment at the conclusion of the patient encounter. The system applies standardized business rules definitions for coordination of benefits.
Other Agencies – State, local, federal agencies that exchange information with Medicaid using different media, connectivity, format and data content Often the agency reports the same data in multiple ways multiple times. Most critical is the untimely secondary reports of clinical information to public health	Others agencies collaborate with the SMA to automate access to data of record, permitting authorized stakeholders to build virtual data records, perhaps from multiple data sources such as Health Information Exchange (HIE), whenever necessary.	The Health Information Exchange (HIE) is responsible for the electronic movement of health-related information. The state agency and its partners complete agreements for the exchange of information between state agency and its partners, including collaboration amongst intrastate agencies, the interstate and federal agencies. Collaborated agencies have access to required information to monitor fraud and abuse, treatment outcomes, provider performance, Key Performance Indicators (KPI), service utilizations, patient safety and other analysis. Promotion of sharing, leveraging, and reuse of Medicaid technologies and systems within and among States.

Comparison of Major Data Exchange

Table A-2 compares the differences in the definition of the Primary Actors and their Major Data Exchange in the transition from the As-Is operations to the To-Be environment. The table focuses on high-level data exchange from a business perspective, and points out the limitations today and the improvements in the To-be environment.

Table A-2. Major Data Exchange

Major Data Exchange	
<i>Major Data Exchange and Their Limitations – As-Is</i>	<i>Future Business Improvements Major Data Exchange – To-Be</i>
General characteristics of the As-Is data exchange: 1. Activity is transaction-based processing. 2. Standards apply to certain designated electronic transactions. 3. Requires mapping to internal systems and standards, which degrades data integrity. 4. Activity is largely manual processing (e.g., telephone, paper, facsimiles). 5. Limit information to administrative data (e.g., requests, payments) because little clinical data is available outside of care settings. 6. Consumer has limited access to any information (random explanation of medical benefits, responses to requests). 7. Collecting data for evaluation and analysis is slow and inefficient, and data is often not comparable. 8. Reporting of information is burdensome because it is duplicative and suffers from inconsistencies and redundancies.	General improvements in To-Be environment: 1. Messages brokered through exchanges as services, later by real-time “sessions” of communication between the parties sharing the information. 2. Data exchange standards apply to all who participate in the exchange of information who wish to receive federal funds for implementing new systems as well as exchanging any information with external agencies. 3. Manual exchange of information is obsolete and only occurs as an exception to automated processing where necessary. 4. Clinical data is readily available to those approved to access it, e.g., Health Information Exchange (HIE). 5. Beneficiary has access to and may contribute to personal health information, treatment plans, and preventive health guidelines, e.g., Health Information Exchange (HIE). 6. Minimized redundant data collection and reporting. 7. Dynamic information sharing makes key health and insurance data available real-time to those authorized.
Eligibility determination staff from different agencies captures the same personal information at designated locations and sends results to different Medicaid Programs. Applicant receives benefit information at the eligibility offices. Beneficiary receives enrollment status information, program identification, and benefits card in the mail separately for each program later. Beneficiary demographics collected in multiple ways and stored in multiple sites, which degrades data integrity. Medicaid Programs and MCOs mail a paper identification card monthly or a plastic/embossed/magnetic strip card annually or periodically.	The SMA identifies individuals based on standardized criteria who qualify for, cost-sharing reductions, Medicaid or CHIP, and other insurance affordability programs. The SMA conducts near-real time verification of application information and, where possible, enrolls the individual into coverage real-time and notifies the issuer of new enrollment. The issuer sends the welcome package and identification card.

Major Data Exchange	
<i>Major Data Exchange and Their Limitations – As-Is</i>	<i>Future Business Improvements Major Data Exchange – To-Be</i>
Patient reports health status during visits. Receives test result information via telephone and the mail.	Patient updates their own personal health record, for review by their physician and care coordinator. The physician may prompt the patient to improve treatment plan compliance or schedule an appointment by telephone, email, mobile device or other electronic message. Health information and clinical data updated real-time in the patient's EHR, which is accessible by the patient, physician, care coordinator or other authorized entities.
Providers submit enrollment applications, agency verifies credentials and applicant receives enrollment status, identification number, taxonomy, and fee schedule/rates multiple times for multiple programs (e.g., Medicare, Medicaid or CHIP). They periodically have to revalidate credentials for each of the programs enrolled.	The SMA receives provider application via web portal. Provider receives electronic notification of enrollment determination. State agencies use nationally standardized applications for request to participate in a program. All providers must submit their Employer Identification Number (EIN) or Social Security Number (SSN) on the enrollment application. Providers that have NPI must provide NPI upon enrollment. Agency conducts screening based on level of risk (i.e., limited, moderate, high) with automated exchanges with state and federal agencies. A provider enrolls in Medicare and acquires dual-eligibility for Medicaid and/or CHIP. The original issuing agency charge application fees to cover the screening. Medicaid terminates a provider immediately when CMS terminates or disenrolls them from Medicare. Revalidation of credentials and the collection of application fees is the responsibility of the initial enrollment agency who accepted the provider's application. CMS requires revalidation every five (5) years except for Durable Medical Equipment (DME) point of sale providers who are to revalidate every three (3) years.
The SMA receives paper application from the MCO, and sends the MCO a paper contract. Negotiate contracts and set rates for entire contract period.	The SMA receives MCO application via web portal. MCO receives electronic notification of negotiated contract. The SMA adjusts rates continuously based on case-mix calculated from real-time access to encounter and patient demographic data in the Health Information Exchange (HIE).
The SMA sends beneficiary enrollment	The SMA sends MCO new or updated beneficiary

Major Data Exchange	
<i>Major Data Exchange and Their Limitations – As-Is</i>	<i>Future Business Improvements Major Data Exchange – To-Be</i>
information electronically to MCO, and sends capitation payments to the MCO bank in paper or electronic format. Medicaid beneficiaries often stay on fee for service until the beginning of a new payment period begins, which results in disruptions to continuity of care.	information. Agency conducts electronic funds transfer of capitated payments to the MCO bank. MCO enrolls beneficiaries, and there is no disruption to their continuity of care under Medicaid. Base rates on actuarial enrollment data that factors the beneficiary's gender, age, and utilization.
The SMA receives encounter data from the MCO in electronic format. The SMA has outdated, incomplete, and inconsistent encounter records out of alignment with the provider's medical record. Deficiencies in encounter data impede monitoring of appropriateness and quality of services provided. The SMA is unable to make timely and accurate comparisons of fee for service and managed care costs.	Health Information Exchange (HIE) detects new encounter data for a patient from the point of service and sends notification to the SMA and MCO of the service provided. Medicaid Statistical Information System (MSIS) exchanges electronic information with the SMA on a real-time basis to enable ongoing updates to Medicaid statistics.
Providers request authorization to provide and receive payment for designated services.	Providers enter treatment plan information into patient's EHR. Based on Medicaid benefit plan coverage information and the patient's treatment history and clinical protocol within the Health Information Exchange (HIE), the provider can make treatment decisions that align with Medicaid payment policies without interaction with the SMA. There is less need for a service authorization transaction except for exceptional cases and appeals that may require manual review by clinical staff. The Health Information Exchange (HIE) automatically forwards these exception cases to the SMA.
Primary providers write referrals to request service from other providers. Often they hand write and hand carry them to a pharmacy or lab.	Providers enter service requests into the patient's EHR, triggering a notification to the referred-to provider that the service information is available. The specialist or ancillary provider accesses this information automatically when the patient arrives. The EHR system aligns with relevant Medicaid coverage, treatment, and clinical protocol information presented by the Health Information Exchange (HIE).
Providers submit claim for payment. Claim duplicates information in medical record, but does not communicate clinical information. Today, claims are documents transmitted in paper or	Providers enter service completed and test result data into the patient's EHR. The Health Information Exchange (HIE) submits an electronic request for payment to the insurance issuer.

Major Data Exchange	
<i>Major Data Exchange and Their Limitations – As-Is</i>	<i>Future Business Improvements Major Data Exchange – To-Be</i>
electronic format. Add clinical information within ASC X12 275 Patient Information claim attachment transaction; however, unless the Claims Attachment data uses LOINC format, stakeholders cannot use the clinical data transmitted automated analysis.	Based on benefit packages and plans, Health Information Exchange (HIE), and adherence to Medicaid payment policies, the SMA conducts electronic fund transfer to the provider's bank. There is no need for a hard copy or electronic claim, remittance advice, or check.
Providers receive paper or electronic remittance advice that describes the payment decision, status, and results.	Provider knows at the point of service that the SMA covers the service, it is payable, and for what amount. Information confirmed in the provider's practice management system and reconciled with a payment notification received from the bank.
Providers request status of payment via telephone or electronic transaction.	Completion of electronic fund transfer triggers notification to provider that the SMA has posted the payment. Provider knows at the completion of the encounter whether there are any disputes about payment for the service.
The SMA determines that beneficiaries have other insurance. The SMA sets indicators on the beneficiary's record to avoid payment.	Medicaid collaborates with other payers to establish a hierarchy of rules to determine which payer pays first for which services and how much, and who is next in the chain of responsibility. Each payer's system that participates in the payment calculates its liability and makes appropriate remuneration to the provider's account.
The SMA determines that beneficiaries have other insurance post payment. Medicaid contacts the provider or other payer to collect repayment. Much time and money spent in the pursuit of payment ("pay and chase").	At the time of service completion, payment hierarchy determination made by the SMA to request payment from the patient and/or insurance issuer(s). There is no pay and chase activity.
The SMA prepares CMS budget report, invoice, and MSIS report.	CMS systems exchange information with Medicaid agencies and the Health Information Exchange (HIE) to populate MSIS and derive other budget information in real-time. For administrative reporting, CMS systems interface with the State Medicaid Enterprise to derive records needed for reports.
The SMA receives Medicare eligibility information from CMS.	The SMA is responsible for eligibility inquiries.
The SMA responds to requests for information	The SMA assembles econometric data from both

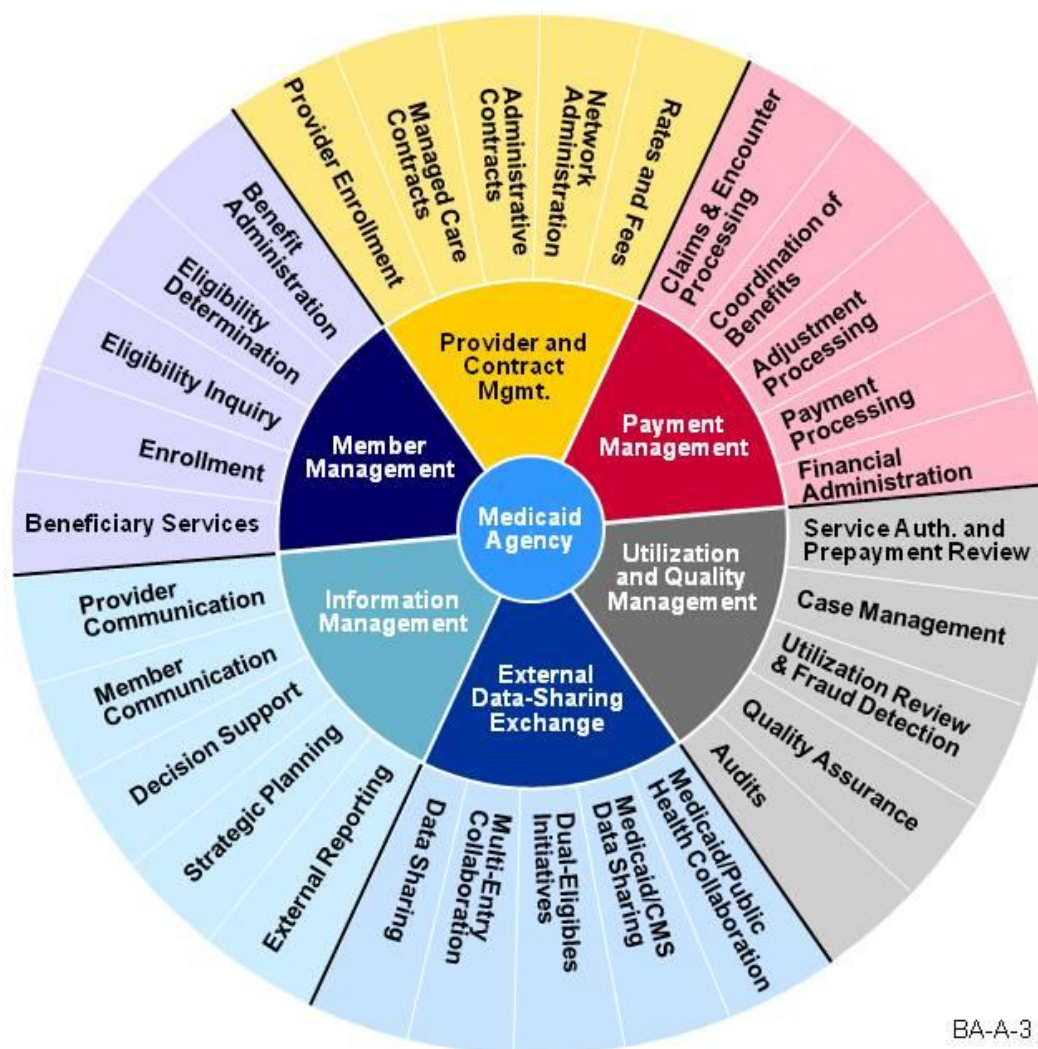
Major Data Exchange	
<i>Major Data Exchange and Their Limitations – As-Is</i>	<i>Future Business Improvements Major Data Exchange – To-Be</i>
from state legislature, Governor, other state agencies, CMS, other federal agencies, and the public. Responses may be time consuming and costly; data may not be timely or reliable.	internal and external sources such as Health Information Exchange (HIE) related to beneficiary via data sharing agreements with external sources of health, financial and socio-economic data to support program outcome and performance standards based on comparison of beneficiaries served by program with peers not served.

Medicaid Business Processes

The enterprise COO provides a business description of how the overall enterprise and its major components operate. It also provides an overview of how data, applications, and technology support the business processes. The As-Is COO captures how the Medicaid Enterprise functions today based on commonalities between States. The To-Be COO is an expansion of the business vision of how the Medicaid Enterprise functions. The COO tells a story that describes the what, where, when, who, why, and how the business operates, primarily from a business or stakeholder's perspective.

As-Is Medicaid Business Processes

The SMA operates the Medicaid program through an organizational structure of major business processes common to all States, although the individual state organization, the number and names of the business processes, and their detailed processes may differ. The MITA team has adopted the business process names used by the Systems Technical Advisory Group (S-TAG) in its redesign of the Medicaid Management Information System (MMIS) to represent the generic Medicaid business processes: e.g., Member Management, Provider and Contract Management, Payment Management, Utilization and Quality Management, and Information Management. The MITA team added another business process, External Data Exchange, to illustrate the data sharing capabilities. **Figure A-3** illustrates the major As-Is business processes.



BA-A-3

Figure A-3. Medicaid Enterprise As-Is Business Functions

Member Management Business Functions incorporates benefit plan administration, eligibility determination, enrollment, and disenrollment in programs, and beneficiary services business categories. It encompasses functions associated with: (1) the design of benefit plans and pricing, including waiver, Health Insurance Premium Payment (HIPP), Primary Care Case Manager (PCCM) and MCO; (2) the identification of the individuals covered by the benefit plans, definition of services provided; and (3) communication of this information. It does not include the direct provision of the service or information gathered about the services. Individual States may choose to separate Eligibility Determination, Eligibility Verification, Enrollment, and Benefit Administration into separate business areas.

Provider and Contract Management Business Functions groups business categories associated with contracts for provider participation, managed care, and any number of other services. Contracts may be for business associates who perform activities on behalf of the SMA, or for the direct delivery of services to the beneficiary population. This business area does not include the provision of service or the collection of information about the service.

Payment Management Business Functions includes all business categories associated with determining payment, making payment, collecting receivables, and reporting for these functions. This business area includes encounters and claims. The SMA uses encounters and claims to determine capitation rates. With the implementation of the HIPAA Transaction and Code Set rule, encounter and claim transactions adhere to the same standards. States that have a primarily managed care program may choose to associate encounter claim functions with a MCO management business area. Some States may consider the Coordination of Benefits (COB) business area.

Utilization and Quality Management Business Functions is a business area that brings together various business categories that share common goals for compliance management, ensuring the quality of care received by beneficiaries and controlling costs. An individual state is free to link these functions with other business categories, e.g., Service Authorization and Prepayment Review with Payment Management.

Information Management Business Functions covers business categories associated with internal information maintenance, retrieval and reporting within the SMA.

External Data Sharing and Exchange Business Functions contains business categories to connect the SMA with CMS, public health agencies, Centers for Disease Control and Prevention (CDC), and any other potential data exchange partner that agrees to adopt the standards and criteria that each SMA specifies while adhering to MITA guidelines.

As-Is Concept of Operations

Figure A-4 depicts the COO for the As-Is operations of the Medicaid Enterprise. It shows the interfaces between current Medicaid operations and the primary participants in the Medicaid Enterprise.

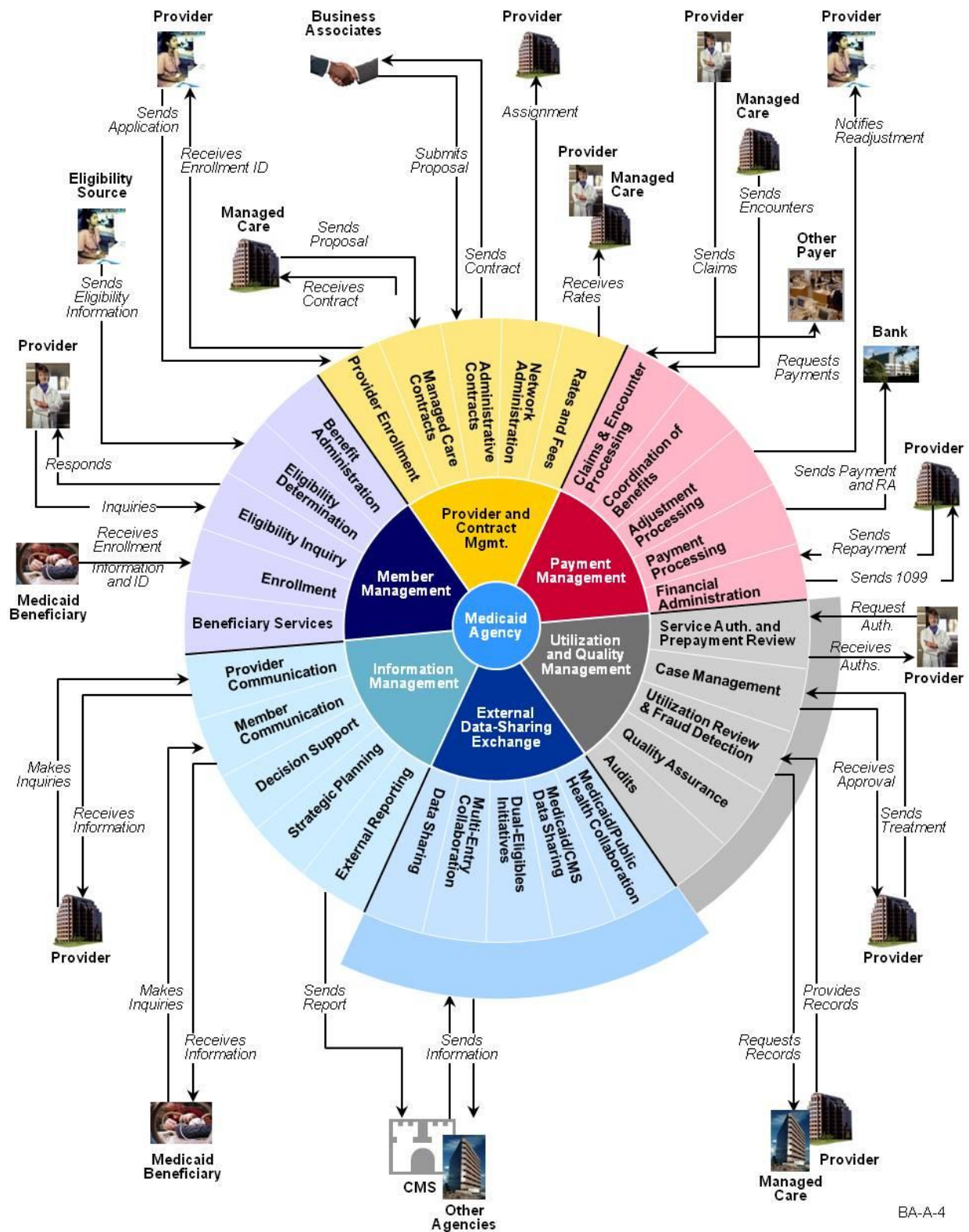


Figure A-4. As-Is Concept of Operations

To-Be Medicaid Concept of Operations

The transformations described in the To-Be Context Diagram lead to changes in the definition of To-Be business areas. The MITA team can project but not predetermine this future operational structure. The following is an organizational structure for the SMA of the future. These changes occur over time, and the agency evolves over several years. **Figure A-5** depicts the Medicaid To-Be environment as it aligns with Medicaid vision and goals.

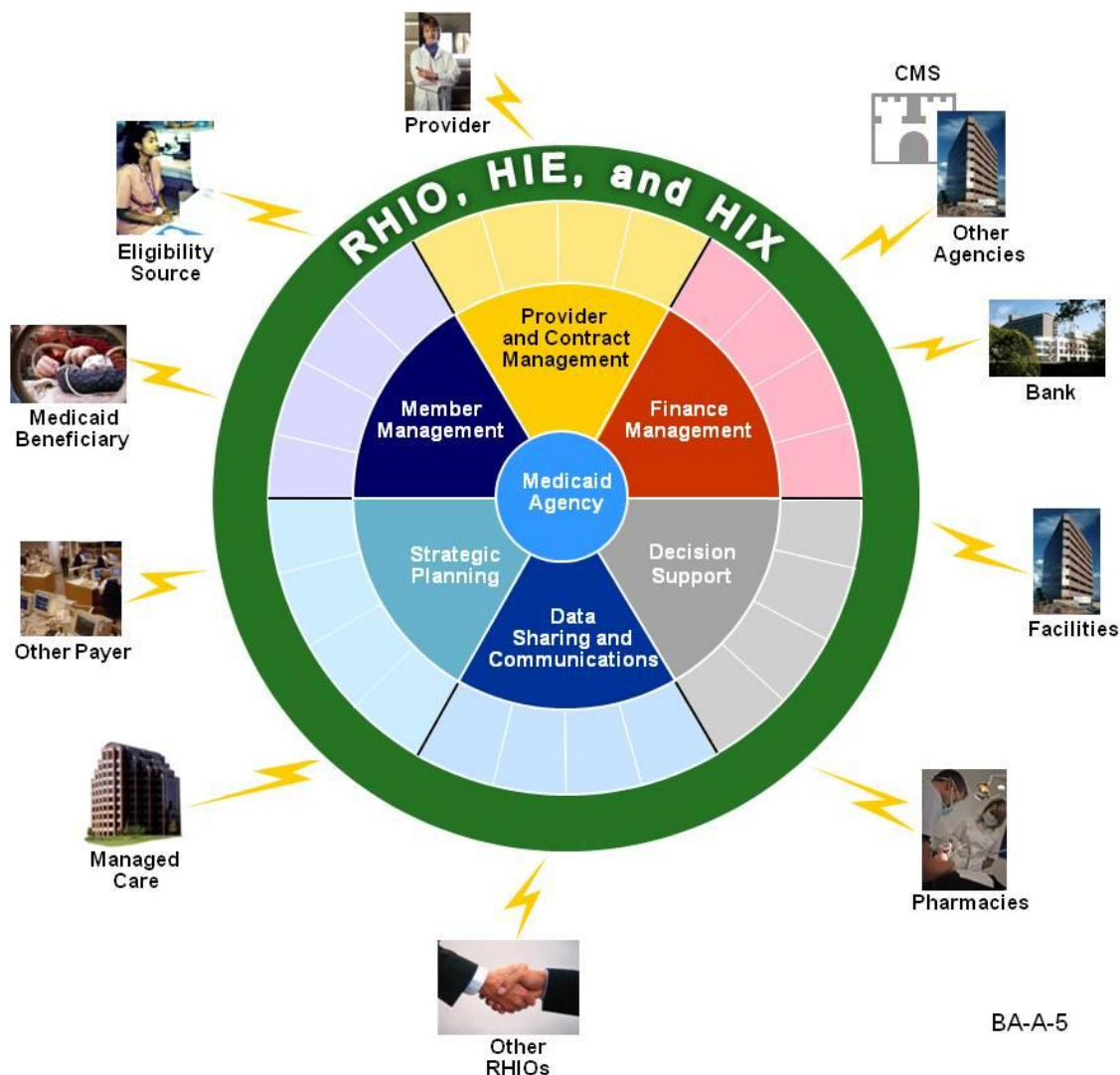


Figure A-5. Medicaid Enterprise To-Be Concept of Operations

Comparison of As-Is and To-Be Concept of Operations

Medicaid operations have evolved since its inception in 1965 through the Title XIX of the Social Security Act. Currently, the mature SMA is a complex organizational structure employing hundreds, sometimes thousands, of staff and outsourcing many functions. An array of business associates contract to support vital operations. Automation has been slow to come to the Medicaid operations. Eligibility inquiry, claims submission, and Point-of-Service (POS) claim adjudication are the most highly automated business processes; however, the widespread use of USPS, telephone, and facsimile services for provider enrollment, prior authorization, and payment processes contrasts As-Is and To-Be COO. As the Medicaid Enterprise matures with new standards and technologies applied, the To-Be environment reflects gained efficiencies and sharing of information at a time when authorized actors desire it. The following comparison illustrates how MITA modifies business operations based on the adaptations. Do not confuse the Member Management (ME) in the Comparison of As-Is and To-Be COO with the Member Management business area.

Table A-3 describes the As-Is operations and the To-Be environment for the Medicaid Enterprise.

Table A-3. Comparison of As- Is and To- Be Operations

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
Member Management (ME)	
What ME operations do now: - Eligibility sources determine eligibility and send information to ME. ME sends benefit and identification packages to the beneficiary, helps select MCO enrollment, performs other enrollments, answers questions, surveys quality of service, and hears complaints and appeals. ME maintains beneficiary information. ME responds to inquiries re eligibility. ME may oversee case and disease management. - ME operations focus on processing applications, assigning beneficiaries to appropriate programs, assuring access to care, promoting preventive care, communications with the beneficiary, and surveying health status.	How ME operations will change: - ME operations are less burdensome with the eligibility and enrollment process because: - Applicant applies through Web portal using standardized and automated processes. - The beneficiary participates in choices. - ME operations focus on analysis of program outcomes: Are beneficiaries receiving better care? Are they more satisfied? Are health trends improving, etc. - ME focuses on exception cases because patients have access to their own health information via the Health Information Exchange (HIE). - ME has accountability for health care improvements for the population.

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
Deficiencies in As-Is operations: - Except for the eligibility records themselves, staff uses manual processes to support most ME functions. - There is little outcome or medical information readily available. Base conclusions on surveys and claim or encounter data. - It is time consuming for the beneficiary to find out information about benefits and health status.	Improvements in To-Be environment: - ME accesses patient EHR and PHR information to monitor cases. - ME has access to medical history and outcomes to assess impact of benefit plans. - ME staff collaborates with other agencies and payers to ensure optimal services for Medicaid beneficiaries. - Beneficiaries access ME information on benefits directly from Health Information Exchange (HIE). - Information is timely, accurate, comprehensive.
Summary of As-Is operations: - As-Is operations concentrate on the maintenance of eligibility data. - ME lacks time, tools, and data to assess quality of care, consumer satisfaction, population health, and improvements in health status and program benefits.	Summary of To-Be environment: - ME operations transform into activities to monitor and assess services received by patients, improvements in health outcomes across the population, and enhancements to benefit plans. - ME collaborates with other health plans to provide enriched, non-redundant, and high-performing benefit programs. - Many As-Is operations are no longer necessary. Attention shifts to evaluating and improving Beneficiary Services.
Provider and Contract Management (P/CM)	
What P/CM operations do now: - P/CM operations process provider applications, communicate billing, encounter reporting, and payment procedures, answer inquiries, and enroll providers in special programs. - P/CM determines billing rates and premiums. - P/CM arbitrates providers' and contractors' disputes.	How P/CM operations will change: - Largely nationally standardized and automated applications and communications. - Timely enrollment of provider with NPI and taxonomy assigned. - Rates and premium calculations originate from a rich source of information: claims, encounters, EHRs, vital statistics, and many other sources.
Deficiencies in As-Is operations: Many processes are manual, labor intensive,	Improvements in To-Be environment: Performance monitoring improves services for

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
and time consuming. - Data needed for analyzing provider performance is untimely, incomplete, lacking in clinical information. - It is difficult to monitor the provider/contractor community as a whole. - Limited interactive communications to HIPAA Electronic Data Interchange (EDI) transactions.	patients and provider satisfaction. - Determine rates and premiums rationally. - P/CM operations focus on monitoring provider performance, identifying problems in the delivery system, enhancing program outcomes, and improving provider satisfaction.
Summary of As-Is operations: - Focus is on enrollment, communications about the billing requirements, establishing rates. - Little time to assess trends, changes, improvements.	Summary of To-Be environment: - Focus is on assessing delivery system, improving services, provider satisfaction, patient outcomes. - Calculate fair and acceptable fees and premiums from comprehensive data. - Many As-Is operations are no longer necessary. Attention shifts to evaluating and improving P/CM Services. - There are procedures under which screenings conducted for providers of medical or other services and suppliers in the Medicare program, providers in the Medicaid Program, and providers in the CHIP.
Payment Management (PM)	
What PM operations do now: - Heavy focus on claims and encounter processing, adjudication, and payment. - Heavy focus on verification of accounts receivables and the collection of payment from the responsible payer. - Manual check processing of payment and collection.	How PM operations will change: - The completion of service initiates the payment request. - Standardized and automated financial process at the time of service. - Electronic Funds Transfer is standard mode of operation.
Deficiencies in As-Is operations: - Payment rules are complex and not standard across agencies. - Changes to payment rules are time consuming.	Improvements in To-Be environment: - Conduct payment request using standardized electronic requests. - Apply standardized business rules definitions to determine payer's responsibility.

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
- Processes, although automated, require much manual intervention and maintenance. - Manual processing is error prone. - Difficult to generate financial estimates due to complex structure. - Time lag between actual and predicted financial estimates.	- Reduce accounts receivable time cycle through standardization and automation. - Reduced time lag between actual and predicted financial estimates for greater accuracy.
Summary of As-Is operations: - Focus on the handling of paper claims and encounters with direct data entry or scanning, which is time consuming. - Focus on electronic claims and encounter processing to get large transactions file to complete, which causes lag time. - Adjustments are commonplace. - Collection and payment activities are primarily manual and time consuming.	Summary of To-Be environment: - Payment request is real-time due to standardization and automation. - Payment request has all the necessary information to determine the proper payment amount from the proper payer to the payee. - Collection and payment are real-time. - Focus is on financial trending that improves financial impacts.
External Data Sharing Exchange (DE)	
What DE operations do now: - Require only HIPAA privacy and security transactions. - Disjointed electronic data exchange since not all partners or agencies have the capabilities for electronic data exchange. - Very limited sharing of clinical data.	How DE operations will change: - Agreements are between the SMA and its partners, including collaboration amongst intrastate agencies, the interstate and federal agencies. - Industry best practices to use open technologies for interoperability. - Health and clinical information is available to those with authorization.
Deficiencies in As-Is operations: - Very limited standardized data exchange that encourages customized interfacing. - Duplicated data ownership is in multiple parts of the organization and sharing is difficult. - Information is either not available or has a time lag on accessibility. - Very little coordination among agency programs or between the enterprise and other	Improvements in To-Be environment: - Establishment of NwHIN. - Established industry standards for common data sharing activities. - Open technologies that make interoperability feasible. - Reuse of Medicaid resources such as applications, web services, and business rule engines.

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
stakeholders.	
Summary of As-Is operations: • Focus is on customized interfaces that typically have prioritization so the SMA cannot complete all work as desired by business stakeholders. • Information is not accessible when needed. • Not all information is available to conduct desired operations. • Operations is labor intensive, time consuming, and expensive.	Summary of To-Be environment: • Operations incorporates national standards to ensure security, accessibility, transparency and transaction protocols. • Information is available to those authorized to use it at the time desired. • Sharing of Medicaid resources reduces time and expense to implement functionality.
Information Management (IM)	
What IM operations do now: • Manage multiple locations of data on partners, applicants, beneficiaries, and the public that may provide inaccurate data if locations lack synchronization. • Often manually locate and verify the required information in order to conduct business operations. • Communications to partners, applicants beneficiaries and the public sent by USPS, facsimile, or telephone. • Development staff performs reporting that is labor intensive and time consuming.	How IM operations will change: • Health Information Exchange (HIE) for health information. • Owner maintains source of information in a self-service model. • Data is available when needed by those authorized to use it. • Near-real time communications delivered to web portal, mobile device, or email address. • Business stakeholder conducts automated reporting on demand.
Deficiencies in As-Is operations: • Disbursement of information on partners, applicants, beneficiaries, and the public among state and federal agencies. • Limited system of record for information causes a duplication of information, which degrades data integrity.	Improvements in To-Be environment: • Maintain data in central locations such as Health Information Exchange (HIE) and State Medicaid Enterprise. • Accurate information on partners, applicants, and beneficiaries. • Deliver communications of vital information real-time. • Reporting tools that access data on-demand and provide analysis capabilities.
Summary of As-Is operations:	Summary of To-Be environment:

Comparison of As- Is and To- Be Concept of Operations	
<i>As-Is Operations</i>	<i>To-Be Environment</i>
- Focus is on manually keeping data up-to-date. - Data is not reliable for decision support activities. - Very little time for strategic planning. - Reporting is cumbersome and requires expert knowledge to generate.	- Maintenance of partner, applicant, and beneficiary information originates from self-service model conducted by the source. - Data is current, accurate, and more reliable for decision support activities. - Reporting tools with the capabilities for analysis and modeling are in the hands of the business stakeholder. - Focus is on decision support and strategic planning activities, rather than data maintenance.
Utilization and Quality Management (UM)	
What UM operations do now: - Very disbursed information makes it difficult to acquire for analysis or modeling. - No well-defined parameters for utilization and quality monitoring. - Focus on the identification of expectations or outliers to the key performance indicators is manual.	How UM operations will change: - Well-defined key performance indicators. - Automatically-identified expectations or outliers with consistent parameters.
Deficiencies in As-Is operations: - Focus is on manual identification with inconsistent parameters and key performance indicators. - Utilization and quality management are outside other operation activities. - Lack of data accuracy and completeness. - Fraud and abuse is difficult to identify in a timely manner.	Improvements in To-Be environment: - Automated parameters, pattern recognition, and other tools identify qualified cases and provide faster turnaround. - Utilization and quality management integrate into other operations activities for continuous monitoring. - Easy identification of fraud and abuse activities for early detection.
Summary of As-Is operations: - Lack of data accuracy and completeness. - Very little improvements in efficiency or effectiveness of actions. - Lack of coordination for corrective actions.	Summary of To-Be environment: - Access to reliable information for effective analysis and modeling. - Focus is on continued cost management and quality improvements. - Increased coordination and improved timeliness for corrective actions.

Medicaid Enterprise Mission and Goals

The MITA Initiative starts with the Medicaid Enterprise mission and goals (see **Table A-4**). These statements originate from surveys and interviews of State Medicaid Program directors, CMS division directors, industry leaders, and other federal agencies. It provides the foundation for the business-driven MITA Framework.

Table A-4. Medicaid Enterprise Mission and Goals

Medicaid Mission and Goals	
<i>Mission & Goals</i>	<i>Description</i>
Medicaid Mission	To provide quality health care to members by providing access to the right services for the right people at the right time for the right cost
Medicaid Goals	To improve health care outcomes for Medicaid members To ensure efficient, effective, and economical management of the Medicaid Program

MITA Mission, Goals, and Objectives

The MITA team developed the following mission, goals, and objectives statements in response to the Medicaid Enterprise mission and goals. Through the realization of these goals and objectives, MITA aids States in achieving their Medicaid mission and goals.

MITA Mission

The mission is to establish a national framework of enabling technologies and processes that support improved program administration for the Medicaid Enterprise and for stakeholders dedicated to improving health care outcomes and administrative procedures for Medicaid beneficiaries.

MITA Goals

The MITA Initiative seeks to accomplish the following goals:

- ❖ Develop seamless and integrated systems that communicate effectively to achieve common Medicaid goals through interoperability and common standards.
- ❖ Promote an environment that supports flexibility, adaptability, and rapid response to changes in programs and technology.
- ❖ Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.

- ❖ Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
- ❖ Provide performance measurement for accountability and planning.
- ❖ Coordinate with public health and other partners, and integrate health outcomes within the Medicaid community.

MITA Objectives

The goals translate into the following objectives:

- ❖ Adopt industry standards for data exchange.
- ❖ Promote reusable components through standard interfaces and modularity.
- ❖ Promote efficient and effective data sharing to meet stakeholder needs.
- ❖ Provide a beneficiary-centric focus.
- ❖ Support interoperability, integration, and an open architecture.
- ❖ Promote secure data exchange (single entry point).
- ❖ Promote good practices (e.g., the Capability Maturity Model (CMM) and data warehouse).
- ❖ Support integration of clinical and administrative data to enable better decision making.
- ❖ Break down artificial boundaries between systems, geography, and funding (within the Title XIX Program).

The goals and objectives of the MITA Initiative further translate into the below Guiding Principles:

- ❖ Business-driven enterprise transformation.
- ❖ Accommodation of commonalities and difference between agencies.
- ❖ Standards applied to improve cost effectiveness.
- ❖ Built-in security and privacy capabilities.
- ❖ Data consistency across the enterprise.

Drivers and Enablers

The improvements for the Medicaid Enterprise enabled by the convergence of enabling technologies and standards have reached a point of maturity after several years of evolution. The MITA Framework takes advantage of key Technical Architecture (TA) features for the SMA to mature to a secured, open and transparent enterprise.

The following series of **Tables A-5** through **A-9** expands on the concepts of technological design principles (drivers) and technological advancement (enablers) by providing business, operational and technical impact statements and concrete examples.

- ❖ **Table A-5** emphasizes the concept of Service-Oriented Architecture (SOA).
- ❖ **Table A-6** focuses on Cloud Computing as a design principle.
- ❖ **Table A-7** concentrates on common interoperability and access services.
- ❖ **Table A-8** shows the Customer Relationship Management (CRM) Applications
- ❖ **Table A-9** contains the Enterprise Architecture (EA) – Governance practice, systems of record, performance standards, and Meta Data Table.

Table A-5. Service-Oriented Architecture

Service Orientated Architecture Drivers, Enablers, and Business Functions	
Drivers and Enablers	Description
Drivers	Stakeholders use SOA as a flexible set of design principles during the System Development Life Cycle (SDLC) to package functionality as a set of interoperable services within multiple separate systems from several business domains. The incorporation of SOA within the State Medicaid Enterprise provides a method for web-based applications. This interoperable design unites disparate state agencies and functions (such as insurance verification, eligibility determination, and access to health information) to bridge the gaps between differing implementation languages using Extensible Markup Language (XML) for common interfaces. This principal also defines how to integrate widely disparate applications for a Web-based environment and uses multiple implementation platforms. Rather than defining an Application Programming Interface (API), SOA defines the interface in terms of protocols and functionality. Separating functions into distinct services allows developers to make the services accessible over a broadly defined network that allows stakeholders to combine and reuse the applications. Enabled services and Medicaid stakeholders' communications pass data in a well-defined, shared format, or by coordinating an activity between two (2) or more services.
Enablers	Hub Architecture (messaging services) A hub is a communications center that subscribers use to send and receive messages or connect a subscriber to other data. Hubs allow systems to share data without having to move it to a central location. As depicted in Figure A-6 the State Medicaid Enterprise will have multiple hubs that can communicate with other external agencies, such as other State Medicaid Enterprises, Internal Revenue Service, child support, public health, or CMS.

Service Orientated Architecture Drivers, Enablers, and Business Functions

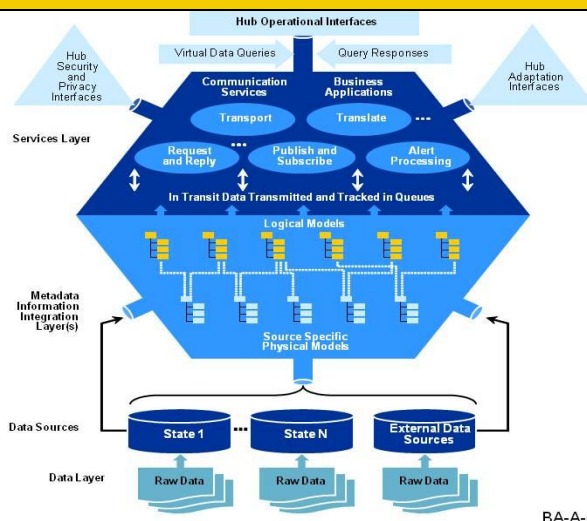


Figure A-6. Messaging Services

Utility Service Architecture

Utility services are the common capabilities that systems need to communicate through hubs. Centralizing and standardizing commonly used services such as security, access rules, and data descriptions reduces redundant capabilities and facilitates interoperability of system components and applications. Utility services are adaptable and extensible to support state-specific needs.

Business Functions	As-Is	To-Be
Business Impact	System design impedes data sharing, performance and outcome measures, and program innovation. Every time a program needs a new source of data, the SMA will set up a new relationship with the owner of that data.	States share data internally and externally with ease. Program innovation facilitated by ability to access data from multiple sources easily.
Operational Impact	The SMA uses staff and resources inefficiently because systems lack functionality. Staff coordinates data exchanges manually by contacting staff of other systems to negotiate formats, record layouts, data dictionaries, volumes, and scheduling. Loading data from other systems into a centralized data warehouse requires production downtime, which decreases processing rates.	Staff and resources reallocated to enterprise critical activities. Uniformity of common system functions makes them transparent to staff, and they do not interfere with the structuring or scheduling of business processes.

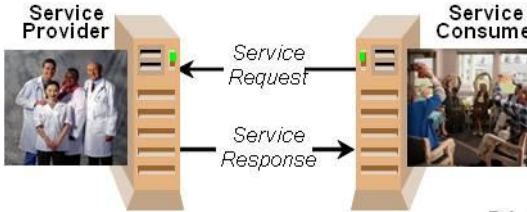
Service Orientated Architecture Drivers, Enablers, and Business Functions		
Technical Impact	Most internal data interchange requires point-to-point custom interfaces and redundant capabilities, such as security controls and event processing to handle each interchange. Data sharing among components requires either point-to-point interfaces or collecting and storing copies of various components' data into a data warehouse. Adding components from various vendors is difficult because of these custom interfaces. Incompatible utility services create system configuration problems that impede optimal system use. Migration of components to new environments is not easy.	Utility services eliminate redundant interchange handling. Standardized interfaces connect applications and facilitate addition of new components from any vendor whose products conform to these standards with less risk, cost, and implementation time. Applications can access data of record at run-time reducing the need for centralized data warehousing. Uniform, compatible utility services ensure ease of system configuration, support plug-and-play capabilities, and enable reuse of components.
Concrete Example	Systems have redundant and incompatible security requirements. Staff logs in and out of each application. There is no consistent way for an application to authenticate with another system that requires interaction. MMIS is typically a legacy system that may have some integration with other legacy systems via custom point-to-point connections. Enhancing functionality to support new programs requires custom coding to add a component. This may require making multiple modifications throughout the legacy systems. These continual modifications may lead to unintended system conflicts and loss of functionality.	Systems share security utility services so that staff can access them using one log-on and systems authenticate in a standard manner. State Medicaid Enterprise with SOA is capable of enhancement because the system makes use of little or no knowledge of the definitions of other separate components to connect them (interfaces), and organization of common infrastructure support (utility services) is through a hub. This means that States can quickly adapt a component developed by another state or purchase off-the-shelf applications and integrate them easily into their systems without having to modify other system components (i.e., plug-and-play capabilities).

Table A-6. Cloud Computing

Cloud Computing Drivers, Enablers, and Business Functions		
Drivers and Enablers	Description	
Drivers	Cloud Computing is a design principle that provides resources on demand via a computer network, regardless of the location or owner of the data. Traditionally, the State Medicaid Enterprise relied on a centralized model with the applications, databases, email and other services housed in the stakeholder's computer or through a sign-on to a mainframe. Cloud Computing converts this paradigm to using the stakeholder's computer as a vehicle to access multiple applications and data sources without changing systems or software. Similar to the internet search engines, the stakeholder navigates through the network accessing services as needed. States should pursue a service-based and cloud-first strategy for system development. States will identify and discuss how they will identify, evaluate, and incorporate commercially or publicly available off-the-shelf or open source solutions, and discuss considerations and plans for cloud computing. This model introduces layers to system design: • Client - consists of the software and hardware layer designed for delivery of services within the network. • Application - this layer introduces the concept of Software as a Service (SaaS) that delivers software over the internet, rather than installing the software on the stakeholder's system that simplifies maintenance and support. • Platform - or Platform as a Service (PaaS) creates a computing platform and/or solution stack that deploys applications without cost and complexity of individual licenses installed on computers. • Infrastructure -- or Infrastructure as a Service (IaaS) are virtual platforms. Rather than multiple, individualized state focused MMIS, States may collaborate to deploy a single MMIS or eligibility system with each state paying for resources consumed.	
Enablers	Application Programming Interface (API) Is a particular set of rules and specifications that facilitate communication between computers and/or networks. API's facilitate communication between software and developers may create them for applications, operating systems, and libraries of programming languages. An API may be general, specific, language independent or language dependent. For example, Java API is general whereas XML Web Services is specific. The language dependent mandates syntax, or service-oriented API with make remote procedure calls.	
Business Functions	As-Is Business Functions	To-Be Business Functions
Business Impact	As discussed in SOA, current	Cloud Computing design maximizes

Cloud Computing Drivers, Enablers, and Business Functions		
	design impedes data sharing, performance and outcome measures, and program innovation. Every time a program needs a new source of data, the SMA will set up a new relationship with the owner of that data.	States' abilities to share data internally and externally. Program innovation accesses data from multiple sources easily.
Operational Impact	Current design inefficiently uses staff and resources due to lack of system functionality to coordinate data exchanges automatically. Staff coordinates data exchanges manually by contacting staff of other systems to negotiate formats, record layouts, data dictionaries, volumes, and scheduling. Loading data from other systems into a centralized data warehouse requires production downtime, which decreases processing rates.	Staff and resources reallocated to enterprise critical activities. Uniformity of common system functions makes them transparent to staff and do not interfere with the structuring or scheduling of business processes.
Technical Impact	Current technical impact is the same as SOA with manually intense processes and inefficiencies from difficult component migration to new environments.	Cloud Computing eliminates redundant interchange handling, standardizes interface connection between applications, and facilitates the addition of new components at lower costs and risks.
Concrete Example	Many States have several enrollment systems that update the MMIS beneficiary file. Each system will have a special program written to support the exchange of enrollment information. Modifications to the MMIS deny staff system access while MMIS updates are in process. Staff spends time remediating errors.	Several States collaboratively design and develop an automated service review (prior authorization) module. This module will use state-specific clinical protocols and standardized business rule definitions to process ASC X12 278 Health Care Services Review Information and 275 Patient Information and Health Level Seven International (HL7) Clinical Document Architecture containing Logical Observation Identifiers, Names and Codes (LOINC) codes and Digital Imaging and Communications in Medicine (DICOM). Once a state develops this module, other States with the appropriate architecture can install this module with lower cost, less risk, and the additional benefit of being able to share its service review data with other States using the same module.

Table A-7. Common Interoperability and Access Services

Common Interoperability and Access Services Drivers, Enablers, and Business Functions		
Drivers and Enablers		Description
Driver	Interoperability refers to the ability of "diverse systems and organizations to work together (inter-operate)". New technologies are facilitating significant changes in the Health Care Industry. These enablers allow hospitals, medical providers, and patients to coordinate the patient's care while significantly lowering costs.	
	HITECH is orchestrating the coordination of electronic health records. The Affordable Care Act of 2010 drives changes to the Health Care and Health Insurance Industries to include the utilization of performance standards and beneficiary-centric operations.	
Enablers	Web Services	
	A service is any output from an application received as input by another application or user (service consumer).	
	 BA-A-7	
Figure A-7. Web Service Example In Figure A-7, the service consumer on the right sends a service request message to the service provider on the left. The service provider returns a response message to the service consumer. The request and subsequent response connections are understandable to both the service consumer and service provider. A service provider can also be a service consumer.		
Business Functions	As-Is Business Functions	To-Be Business Functions
Business Impact	States have limited ability to access or use clinical data. As a result, the States base health outcome analysis on eligibility, claims, public health data, and elaborate, time-consuming and costly statistical analysis. States refrain from optimizing their use of service review, clinical validation of claims, and case and disease management.	States have immediate access to clinical data for outcome-based analysis that optimizes services for beneficiaries and providers while decreasing costs.
Operational Impact	Staff reviews clinical justification for	Automation of streamlined provider

Common Interoperability and Access Services Drivers, Enablers, and Business Functions		
	claims and service review requests manually. Staff audits authorizations retrospectively. Manual service reviews may impede beneficiaries' access to urgently needed care. Providers delay clinical decisions and conduct burdensome administrative tasks to receive coverage determinations.	and Medicaid operations when clinical information is immediately available and real-time decision making is the norm.
Technical Impact	As noted under SOA, current systems have point-to-point custom interfaces and redundant capabilities that create system configuration problems, which impede optimal system use. Migration of components to new environments is not easy.	By focusing on the concept of interoperability and access services, the State Medicaid Enterprise will eliminate redundant interchange handling and connect via standardized interfaces from any vendor whose products conform to these standards with less risk, cost, and implementation time.
Concrete Example	Medicaid conducts health outcome studies and performance standards using manually reviewed health records. This requires expensive and time-consuming medical record collections and complex statistical analysis that often result in less than quality data.	The SMA is able to access the electronic health records of beneficiaries using automated processes that derive and aggregate clinical data in accordance with study parameters.

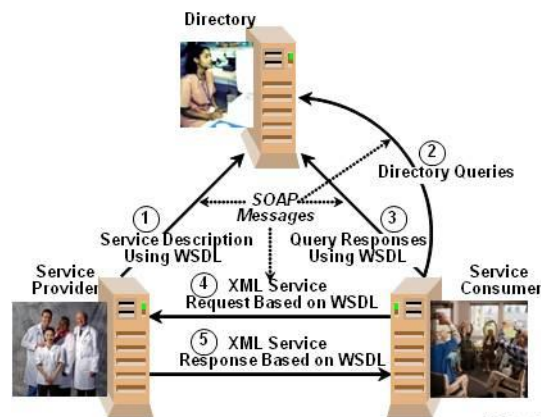
Table A-8. Customer Relationship Management (CRM) Application

Customer Relationship Management Application Drivers, Enablers, and Business Functions	
Drivers and Enablers	Description
Driver	CRM is a strategy that uses technology to organize, automate, and synchronize business processes. Originally, applied in the private sector to determine the needs of company customers, this concept applies to the Health Care and Health Care Insurance Industry. As applied in the MITA Framework, this concept focuses on (1) beneficiary and provider access to EHR data and (2) individual access to health insurance alternatives.
Enablers	Electronic Health Record System A provider's EHR system contains the interoperability to share a person's comprehensive health history with all authorized stakeholders rather than just a single provider whom has limited view of that history. These systems also

Customer Relationship Management Application Drivers, Enablers, and Business Functions

allow patients to be active participants in their health and care by maintaining a PHR.

Simple Object Access Protocol (SOAP) specifies the exchange structured information for web-based computer networks. SOAP relies XML for messaging, Application Layer protocols, such as Hypertext Transfer Protocol (HTTP) for negotiation and transmission of messages. The **Figure A-8** illustrates the SOAP for a Health Information Exchange (HIE) between medical providers and the individual.



BA-A-8

Figure A-8. SOAP for a Health Information Exchange (HIE)

Business Functions	As-Is Business Functions	To-Be Business Functions
Business Impact	As noted in previous drivers, the legacy MMIS does not take advantage of the new computing resources to lower cost, minimize inefficiencies, and maximize the use of resources.	With implementation of Health Information Exchange (HIE) services, the State Medicaid Enterprise provides the individual and the medical provider real-time information.
Operational Impact	Public health agencies do not have access to critical pre-diagnostic and diagnostic data for syndromic surveillance.	Public health has real-time access to clinical data to determine agency responses to potential patient-safety issues or epidemics.
Technical Impact	Current technology requires multiple, manual processes for prior authorization, clinic data outcome measures, and eligibility determination.	A CRM focuses on eliminating redundant interchanges and maximizes real-time customer-centric interfaces.

Customer Relationship Management Application Drivers, Enablers, and Business Functions		
Concrete Example	Medicaid conducts health outcome studies and performance standards using manually reviewed health records. This requires expensive and time-consuming medical record collections and complex statistical analysis that often results in less than quality data.	The State Medicaid Enterprise is able to access EHR of beneficiaries using automated processes that derive and aggregate clinical data in accordance with study parameters.

Table A-9. Enterprise Architecture

Enterprise Architecture Drivers, Enablers, and Business Functions		
Drivers and Enablers		Description
Driver	Enterprise Architecture (EA) is a thorough description of an enterprise. The State Medicaid Enterprise has evolved beyond individual state MMIS systems. The MITA context defines the Medicaid Enterprise as three (3) spheres of influence: • The domain where federal matching funds apply. • The interfaces and bridges between the SMA and Medicaid stakeholders, including providers, beneficiaries, other state and local agencies, other payers, and CMS and other federal agencies. • The sphere of influence touching, or touched by, MITA (e.g., national and federal initiatives, including the Office of the National Coordinator for Health IT (ONC), Development Standards Maintenance Organizations (DSMO) and other federal agencies.	
Enablers	MITA Framework The three (3) architectural components provide the States with the business methods, analytical techniques, and conceptual tools to understand and document the structure and dynamics of an enterprise. MITA includes State Self-Assessment (SS-A) templates for the evaluation of the Seven Standards and Conditions, along with the Business Architecture (BA), Information Architecture (IA), and TA.	
Business Functions	As-Is Business Functions	To-Be Business Functions
Business Impact	Legacy MMIS systems develop over time based on individual modifications from legislative mandates and policy changes resulting in multiple systems, databases, and disperse data.	MITA Framework provides States with a framework for analyzing the current system and developing a roadmap for changes to business processes.

Enterprise Architecture Drivers, Enablers, and Business Functions		
Operational Impact	Traditional development practices inefficiently used resources and increased cost for duplicated systems across States.	An EA focus eliminates duplication in systems, allows real-time services, and decreases costs.
Technical Impact	Current technology requires multiple, manual processes.	Interoperability practices and leveraging existing work increase the use of automated real-time interfaces.
Concrete Example	All of the previous examples illustrate problems with previous MMIS design and implementation strategy.	The MITA Framework facilitates a business process definition to system development that follows established enterprise architecture practices.

Business Improvements

The MITA team uses operational scenarios (case studies) to show the dynamics of the business operations from the stakeholders' point of view. The scenarios describe the what, where, when, why, and how of future SMA operations. Each scenario focuses on a specific area of interest that illustrates a major transformation to a business process that results in meeting specific MITA mission and objective statements.

Examples of Business Improvements

To illustrate the progression from the As-Is operations to the To-Be environment, the MITA team has selected a number of examples of business improvements. Some of these are processes are already undergoing change today. They are selected from many possible examples of change because they help to illustrate the To-Be improvements and how the Medicaid Enterprise changes over time.

This chapter includes the following Business Improvements in this section:

- ❖ Enable “no wrong door”– Applicants for benefits find easy access to appropriate, coordinated services.
- ❖ Optimize health outcomes through conflict-free case management.
- ❖ Expand Flexibility and Adaptability (Benefit Plan Maintenance Example).
- ❖ Safeguard Public Health through collaboration.
- ❖ Improve health outcomes by empowering beneficiaries to participate in the management of their care.
- ❖ Improve accountability through use of Unique Provider Identifier and Standardized Provider Taxonomy.

Table A-10 through **Table A-14** contain selected business cases to illustrate the transformations from the As-Is operations and the To-Be environment of a Medicaid Enterprise.

Table A-10. Optimize Health Outcomes through Conflict-Free Case Management

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
As-Is Summary Clinical information supporting a patient’s treatment history and outcomes obtained in paper format to support service authorizations, payment of claims, and review or audit of services rendered. The process is labor intensive, inconsistent, and slow. The information is non-standard. Administrative, financial, and public health reporting originates from clinical data collected during encounters, and SMA redundantly reports it to secondary stakeholders, thereby diminishing data quality and accessibility.	To-Be Summary There is the implementation of conflict-free case management services. Clinical information is immediately accessible to all authorized parties including the patient, from the point of service or Health Information Exchange (HIE). The standardized and protected information is immediately available for clinical decisions. There is a complete record for each beneficiary, including EHR and PHR, standardized clinical protocols, and standardized business rules definitions pertaining to service coverage. The SMA can generate all relevant clinical, administrative, financial, and public health information from the point of care and share with provider and payer partners, eliminating provider reporting burden and improving patient safety. Immediate access to clinical data improves health outcomes by reducing the administrative burden for the provider, the payer, and the patient, thus, allowing the provider to focus on treatment and the patient to participate in the healing process. Improvements occur in several Medicaid operations processes. For example, prior authorization occurs automatically as the provider enters treatment plan information into the medical record, and the Health Information Exchange (HIE) notifies the SMA of the authorization. The SMA applies standardized business rules

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
	definitions consistently. The provider receives alerts regarding the status of the service. The SMA no longer performs routine prior authorizations for services. Only exceptional cases need review by the SMA. The SMA staff focuses on performance standards and outcome analysis.
Details of Current Business Environment a. Storage and Access To Medical Records Currently, beneficiary has medical records stored in multiple provider locations. Much of the information in the multiple records is redundant, e.g., patient medical history, benefit coverage. Shares medical information when requested by appropriate provider, payer, auditor, or quality review organization; however, shared clinical information is not timely, and the quality of the information varies widely. There are no data standards; therefore, the information is inconsistent. The information is usually a paper copy requiring re-entry of data for any significant analysis. Sharing of information is time-consuming and difficult, and requires re-entry of data for administrative, financial, and public health reporting. Insufficiency of information impairs strategic planning because of lack of standardized information on care outcomes.	Details of Future Business Improvements a. Storage and Access to Electronic Health Records Medical information is available to and shared by the health care community (providers and payers, beneficiaries, public health, and oversight entities) through a local Health Information Exchange (HIE). The individual provider, payer, beneficiary, and other stakeholders only store the information they need for their own purposes because the other medical information is always “virtually” available. Eliminate Redundancy of stored data and inconsistencies through the subscription to the EHR. Same capabilities that support the State Medicaid Enterprise architecture to integrate all its program areas, align its business processes and support conflict-free case management with registries of beneficiaries to enable business interchange with the health care community and beneficiaries. Real-time interfacing with the Health Information Exchange (HIE) across the enterprise results in: • Instant, timely authorized access to clinical information using common terminologies and data standards. • Interoperability with all stakeholders that need to know information

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
	about a patient. Eliminates providers' reporting burden and increases data quality.
b. Service Authorization Providers use paper, postal service, telephone, facsimile, and some EDI and Web services to submit request to perform services. There may be delayed and inconsistent responses. Process is time-consuming and labor intensive. Patients with legitimate needs do not receive treatments with in a timely timeframe.	b. Improved Service Authorization Providers no longer request authorization. Entry of diagnosis and plan-of-care information into the EHR triggers a notification to the SMA through the Health Information Exchange (HIE). Clinical decision support rules assess the appropriateness of the service within the Medicaid benefit plan for the patient. The provider receives immediate notification of approval or denial of service.
c. Referrals The primary provider diagnoses the patient and determines need for additional service (e.g., laboratory, pharmacy, radiology, other physician, therapy, or admission to an institution). Some referrals are handwritten notes hand carried by the patient to the secondary provider. The referred-to provider sends results via postal or telephone communications to the primary provider.	c. Improved Referral Reporting The primary provider diagnoses the patient and enters need for secondary service into the EHR. EHR sends notifications for referred providers to access the referral information. The SMA notifies the primary provider that results of the referral service are available for other stakeholders. Shared clinical information expedites the referral process and improves the quality of outcome.
d. Claim Submittal Providers prepare and submit claims for services rendered via paper, postal service, facsimile, EDI, or Web services.	d. Virtual Claim Reporting When the provider enters service information into the EHR, the Health Information Exchange (HIE) notifies the SMA of the event. Health Information Exchange (HIE) also sends notification to CMS for improved, near or real-time MSIS reporting.
e. Encounter Reporting Health plans prepare and submit encounter reports for services	e. Virtual Encounter Reporting When the provider enters service information into the EHR. The

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
rendered by providers in their network. The encounter report is redundant to the claim submitted by the provider. Data in the encounter may not be consistent with the claim.	Health Information Exchange (HIE) sends notification to both the health plan and Medicaid.
f. Public Health Reporting Providers prepare and submit reports to Public Health Agencies for targeted conditions separately from claim preparation.	f. Improved Public Health Reporting Redundant reporting eliminated. Public Health Agency receives immediate notification. Health Information Exchange (HIE) sends information to Public Health Agency that is timely and consistent. Public Health can improve response time for health and bio-terrorism alerts.
g. Disease and Immunization Registry Reporting Providers prepare and submit disease and immunization data separately from claim preparation.	g. Improved Registry Updating EHR and Health Information Exchange (HIE) eliminates redundant reporting. Registries receive immediate notification of relevant information. Information sent to registries is timely and consistent. Stakeholders of registries have access to timely and consistent information.
Current Constraints <i>Legal and Statutory Constraints</i> <i>Technology Constraints</i> HIPAA requirement to implement claim attachment	Future Drivers <i>Legal and Statutory Drivers</i> Conflict-free case management services to develop a service plan, arrange for services and supports, support the beneficiary (and, if appropriate, the beneficiary's caregivers) in directing the provision of services and supports for the beneficiary, conduct ongoing monitoring to assure the delivery services and supports to meet the beneficiary's needs, and achieve intended outcomes.

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
	- The Seven Standards and Conditions. <i>Technology Enablers</i> - Beneficiary Registry is available online or with Automated Voice Response (AVR) systems twenty-four (24) hours a day, seven (7) days a week. Beneficiaries can access program portals and their PHR to report changes in health, financial, or demographic status; file complaints; request services or information; report issues such as lack of access, abuse, or barriers to services; and respond to outcome measurement and consumer expectation surveys about programs and providers. - Enables authorized entities to integrate with complementary applications and infrastructure services (directory, vocabulary, etc.) using standards-based application programming interfaces (e.g., Clinical Context Object Workgroup (CCOW)). For example, support sessions with EHR systems for health outcome analysis, clinical record reviews, measuring payment accuracy, and audits. Use context and workflow management, support sharing or creation of administrative, public health, and financial data during clinical encounters.
Current Medicaid Operations Involved <i>Care Management</i> Care coordination is manual process that is time consuming and may not provide an accurate representation of the needs or condition of the patient.	Future Operations <i>Care Management</i> - Health Information Exchange (HIE) integrates with the State Medicaid Enterprise to provide reliable health information about a patient. - Provides conflict-free case management services due to data

Concept of Operations – Business Improvement Case Study #1 <i>Optimize Health Outcomes Through Conflict-Free Case Management</i>	
As-Is	To-Be
	standards for interoperability between agency, provider, beneficiary and care managers. • Apply standardized business rules definitions for screening and assessment of needs. • The collection of services data, quality data, and outcomes measures for business reporting.
Medicaid Business Goals	MITA Business Goals
Improved health care quality and outcomes	Develop seamless and integrated systems that effectively communicate to achieve common Medicaid goals through interoperability and common standards.
Expanded access to health care	Promote an environment that supports flexibility and adaptability and rapid response to changes.
Delivery of the right services to the right people at the right time	Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
Increased efficiency in program administration	Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
Improved program accountability	Provide performance measurement for accountability and planning.
	Coordinate with Public Health and other partners, and integrate health outcomes within the Medicaid community.

Table A-11. Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)

Concept of Operations – Business Improvement Case Study #2 <i>Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)</i>	
As-Is	To-Be
As-Is Summary Changes to benefit plans or adding new ones is time consuming and costly.	To-Be Summary Real-time benefit plan updates and creation of new plans using standardized business rules definitions provide immediate information and speed up the process of establishing the new or changed benefits. Agency can focus on performance standards, outcomes, and strategic planning. Improved benefits reach the population sooner, thus contributing to better outcomes and administrative efficiencies; healthier population; and less administrative burden. Automation of benefit plan changes and creation of new plans frees operations staff to focus on planning for such changes and analyzing the results post implementation.
Details of Current Business Environment a. Create and Maintain Benefit Plans - States are unable to respond promptly to changes in program direction and/or legislation. - The SMA grafts new benefit packages onto legacy processes inheriting their inefficiencies. For example, the SMA often grafts managed care benefit rules onto claims processing functions that do not support the full range of processes required for managed care administration. - Cannot combine multiple to optimize services or funding.	Details of Future Business Improvements a. Improve Creation and Maintenance of Benefit Plans Enable business analysts to make efficient and real-time changes to benefit plan design, eligibility criteria, determination process and standardized rules definitions based on automated, real-time performance and outcome metrics.

Concept of Operations – Business Improvement Case Study #2 <i>Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)</i>	
As-Is	To-Be
Difficult to change policies because demographic data and health status outcome measures are not available to support changes.	
b. Administer Benefit Plans - States cannot administer benefits optimally. - Isolated benefit packages and lack of coordination across multiple benefit plans affects beneficiary care.	b. Improve Benefit Plan Administration Enable administration of program design rules to create beneficiary-specific benefit packages based on eligibility for multiple plans, thereby optimizing services and federal funding participation.
c. Evaluate Benefit Plan Effectiveness States cannot assure that beneficiaries are receiving their entitled benefits, or are not receiving duplicate services. There is a limitation to detecting fraudulent use of benefits.	c. Improve Benefit Plan Evaluation Standard eligibility determination data, as well as built-in data collection and analysis of eligibility performance standards, health outcomes measures, and beneficiary/provider satisfaction surveys, enable analysis of programs' quality and cost-effectiveness.
d. Determine Eligibility for Benefits - State unique eligibility determination data in state-integrated eligibility systems is incompatible with MMIS eligibility data. Incorrect mapping of data between these two (2) systems cause duplicates and erroneous beneficiary records that are problematic for public health and research uses. - Eligibility determination criteria and processes are unnecessarily complex, labor intensive, and untimely. Determination requires interview at welfare office and paperwork. Often requires application of eligibility rules for non-health programs prior to those strictly related to health program eligibility. - Determination process lacks electronic, real-time access to	d. Improve Eligibility Determination - Enable eligibility determination applications to utilize electronic, real-time access to beneficiaries' or their families' and caretakers vital statistics, employment, workers' compensation, social security, absentee parent, and tax records, and other sources of data required for automating and updating eligibility, COB, Third-Party Liability (TPL), and HIPP information. Improves ability to detect applicant and beneficiary misrepresentation and fraudulent conduct to obtain coverage. - Automate HIPP determination by accessing subscriber health benefit information from State Insurance Departments. - Treat spend-down for eligible beneficiaries as a deductible by

Concept of Operations – Business Improvement Case Study #2 <i>Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)</i>	
As-Is	To-Be
beneficiaries' or their families' and caretakers' vital statistics, employment, workers' compensation, social security, absentee parent, tax records, and other sources of data required for timely, non-paper-based review. Providers refuse care for uninsured patients or risk not being paid because they cannot determine eligibility during the encounter.	deducting providers' claims paid amount from the beneficiaries' spend-down account.
e. Communicate Benefit Plan Information to Providers and Beneficiaries Some States mail paper Medicaid identification cards to beneficiaries every month. New beneficiaries will wait for identification card before they can get services, or the provider will call to verify with staff because the eligibility data is not yet available in the system.	e. Improved Benefit Plan Communications Benefit information is available on-line on request to all authorized parties.
f. Report Benefit Plan Outcomes - Reporting to funders, legislators, and public health regarding benefit plan performance, trends, effectiveness, and projections is time consuming, labor-intensive, and comes from incomplete data. - Cannot report on real outcomes and improvements based on current eligibility, claims, and encounter data. Conduct special studies to report on outcomes.	f. Improvements in Benefit Plan Outcome Reporting Standardized business rules-based benefit plans and access to EHR clinical information provide the SMA with immediate, consistent outcome information for decision-making.
Current Constraints <i>Legal and Statutory Constraints</i>	Future Drivers <i>Legal and Statutory Drivers</i> Legislation or policy changes create the coordination of eligibility

Concept of Operations – Business Improvement Case Study #2 <i>Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)</i>	
As-Is	To-Be
Technology Constraints Benefit plan structure is difficult to change due to hardcoded rules.	and enrollment between Medicaid and other insurance affordability programs. - The Seven Standards and Conditions. Technology Enablers - Hub architecture to support collaboration with plan issuers - Standardized business rules definitions - Data standards
Current Medicaid Operations Involved Health Plan Management - State Medicaid Enterprise is unable to respond promptly to legislation or program direction. - Health plan and health benefits have inherit inefficiencies do to complex structures.	Future Operations Health Plan Management - Streamline operations for health plan management and support real-time responses to federal and state regulations. - Performance standards tie to health plans and health benefit outcomes metrics.
Medicaid Business Goals	MITA Business Goals
Improved health care quality and outcomes	Develop seamless and integrated systems that effectively communicate to achieve common Medicaid goals through interoperability and common standards.
Expanded access to health care	Promote an environment that supports flexibility and adaptability and rapid response to changes.

Concept of Operations – Business Improvement Case Study #2 <i>Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)</i>	
As-Is	To-Be
Delivery of the right services to the right people at the right time	Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
Increased efficiency in program administration	Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
Improved program accountability	Provide performance measurement for accountability and planning.
	Coordinate with Public Health and other partners, and integrate health outcomes within the Medicaid community.

Table A-12. Safeguard Public Health through Collaboration

Concept of Operations – Business Improvement Case Study #3 <i>Safeguard Public Health Through Collaboration</i>	
As-Is	To-Be
As-Is Summary Medicaid, Public Health, and other agencies communicate in an ad hoc mode with no interoperability. Providers and payers redundantly report service information for multiple purposes, e.g., payment, disease reporting, MSIS reports.	To-Be Summary Medicaid, Public Health, and other agencies collaborate formally in reporting of infectious disease, bio-terrorism, immunizations, and other health care events. Collection of information at the point of service and storage in a medical record automatically triggers a notification to the payer, registry, alert system, and reporting

Concept of Operations – Business Improvement Case Study #3 <i>Safeguard Public Health Through Collaboration</i>	
As-Is	To-Be
	systems, that new service information is available. Collaboration improves health outcomes, promotes public safety, and increases efficiency of operations. Operations staff is free from burden of chasing information and completing redundant reports. Instead, they focus on assessing available information and work collaboratively with sister agencies to understand health trends and develop strategic and tactical responses.
Details of Current Business Environment - MMIS does not submit data to the Public Health Information Network System (PHINS) although it may be an important regional electronic data source. - MMIS does not generate Notifiable Condition Reports to load to National Electronic Disease Surveillance System (NEDSS). - MMIS is not part of the Health Alert Network System (HANS), so is unable to respond expeditiously when HANS first broadcasts outbreak information.	Details of Future Business Improvements - State Medicaid Enterprise integrates with PHINS, NEDSS and BioSense. - BioSense is one of several national initiatives to improve the nation's preparedness for identifying and handling a bioterrorism event. BioSense will improve early detection through the implementation of near real-time reporting of health data, the implementation of enhanced connections between clinical care and public health, and the advancement of early detection analytics. - Provider enters relevant diagnostic data into the EHR. - State Medicaid Enterprise interfaces with EHR during the encounter. - State Medicaid Enterprise detects relevant diagnostic data to upload to BioSense. - PHIN rules about Diagnostic and Pre-Diagnostic Data entered into

Concept of Operations – Business Improvement Case Study #3 <i>Safeguard Public Health Through Collaboration</i>	
As-Is	To-Be
	the EHR during the encounter trigger an alert to the provider to order tests or investigate further clinical issues. BioSense and NEDSS analysis update State Medicaid Enterprise Clinical Decision Support with new PHIN rules.
Current Constraints <i>Legal and Statutory Constraints</i> - Some statutes may impede data-sharing arrangements. <i>Technology Constraints</i> - Technology is not in place.	Future Drivers <i>Legal and Statutory Drivers</i> - Establishment of a national strategy for quality improvements in health care. - Legislation to address gaps in quality, efficiency, comparative information effectiveness, and health outcomes measures and data aggregation techniques. <i>Technology Enablers</i> - Hub architecture support collaboration with Public Health.
Current Medicaid Operations Involved <i>Manage Population Health Outreach</i> - Determination of targeted population for monitoring and reporting is labor intensive. <i>Manage Registry</i> <i>External Data Sharing and Exchange</i> – Medicaid/Public Health Collaboration.	Future Operations <i>Manage Population Health Outreach</i> - Efficiencies in data collection improve the reliability of information for monitoring and reporting. <i>Manage Registry</i> - Interoperability and data standards increase the ability to collaborate with stakeholders to improve health outcomes, promote public safety and increases efficiency of operations.

Concept of Operations – Business Improvement Case Study #3 <i>Safeguard Public Health Through Collaboration</i>	
As-Is	To-Be
Medicaid Business Goals	MITA Business Goals
Improved health care quality and outcomes	Develop seamless and integrated systems that effectively communicate to achieve common Medicaid goals through interoperability and common standards.
Expanded access to health care	Promote an environment that supports flexibility and adaptability and rapid response to changes.
Delivery of the right services to the right people at the right time	Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
Increased efficiency in program administration	Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
Improved program accountability	Provide performance measurement for accountability and planning.
	Coordinate with Public Health and other partners, and integrate health outcomes within the Medicaid community.

Table A-13. Improve Health Outcomes

Concept of Operations – Business Improvement Case Study #4 <i>Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care</i>	
As-Is	To-Be
As-Is Summary Currently, beneficiaries have limited ability to participate in the management of their treatment.	To-Be Summary The SMA empowers beneficiaries to take responsibility for health status and outcomes. They participate in treatment decisions. They interact in real-time with their providers and have immediate access to a composite, complete, EHR and PHR. Levels of compliance improve. This is a consumer-driven health care model that results in greater provider and consumer satisfaction. There is noticeable improvement with the sharing of information (e.g., health care status, prevention, and outcomes) with all stakeholders. A healthier population reduces the burden on the delivery system, care management, and associated costs. SMA staff has a reduction in activities involving case management functions (e.g., waiver programs and disease management). Staff focuses on monitoring progress of treatment and analyzing outcomes and patient satisfaction.
Details of Current Business Environment a. Access to Benefits In many communities, numerous funding streams support beneficiary services, administered by multiple agencies, and have complex, fragmented, and often duplicative intake, assessment, and eligibility functions. Figuring out how to obtain services is difficult both for persons who qualify for publicly funded support and for those who can	Details of Future Business Improvements a. Improved Access to Benefits Implement and maintain a SMA Web Portal to serve as highly visible and trusted place where people turn for information on their “no wrong door” access to public health and social service support programs and benefits. It serves all Medicaid eligibles, those eligible for state-funded programs, parents and other caretakers, pregnant women, infants and

Concept of Operations – Business Improvement Case Study #4 <i>Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care</i>	
As-Is	To-Be
pay privately. These barriers lead to institutional, long-term support as the default outcome.	children under age 19, as well as persons planning for future long-term support needs.
b. Access to Health Information The beneficiary requests copies of health records from various providers. In order to view a consolidated health record, the beneficiary needs to make separate requests from all his or her providers. This can be a slow, time-consuming process. Beneficiaries in case management programs or disease management programs interact with the case manager in determining the course of treatment.	b. Improved Access to Health Information The beneficiary has access to his/her own health record on-line. Having the patient ensure that his/her health record is correct is a way to protect personal health safety. The beneficiary receives incentives to prevent illness and become engaged in managing health care. The patient can direct his/her own care, determine how to use resources, and make his/her own choices.
c. Reporting Changes in Health Status The provider reports changes in health status by the beneficiary during an episode of care. Information may be incomplete depending on the type of service conducted for the beneficiary.	c. Improvements in Reporting Status A beneficiary maintains his/her PHR as his/her treatment progresses. Information is available to all care managers. A single EHR exists for a patient that includes health status, treatment outcomes, clinical information, and lab results. Information is available to all care managers.
d. Receiving Information from Providers The provider provides information at the time of service.	d. Improvements in Receiving Feedback and Results The Health Information Exchange (HIE) is available online and accessible twenty-four (24) hours a day and seven (7) days a week. Health information and educational materials are available to the beneficiary when it is convenient to the patient.

Concept of Operations – Business Improvement Case Study #4 <i>Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care</i>	
As-Is	To-Be
Current Constraints <i>Legal and Statutory Constraints</i> - HIPAA Privacy Rule enforces patient access to health records <i>Technology Constraints</i> - Beneficiaries lack on-line access - Information is not readily available	Future Drivers <i>Legal and Statutory Constraints</i> - Conflict- free case management services to develop a service plan, arrange for services and supports, support the beneficiary (and, if appropriate, the beneficiary's caregivers) in directing the provision of services and supports for the beneficiary, and conduct ongoing monitoring to assure the delivery services and supports to meet the beneficiary's needs and achieve intended outcomes. - The Seven Standards and Conditions. Technology Enablers - Standardized EHR and PHR. - Hub architecture support collaboration with care givers. - Electronic access to information when desired.
Current Medicaid Operations Involved <i>Care Management</i> Beneficiaries have limited access to their health information and treatment outcomes.	Future Operations <i>Care Management</i> Beneficiaries, providers and care managers have access to the same information and can provide collaboration for treatment outcomes that best meet the needs of the patient.
Medicaid Business Goals	MITA Business Goals
Improved health care quality and outcomes	Develop seamless and integrated systems that effectively communicate to achieve common Medicaid goals through

Concept of Operations – Business Improvement Case Study #4 <i>Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care</i>	
As-Is	To-Be
	interoperability and common standards.
Expanded access to health care	Promote an environment that supports flexibility and adaptability and rapid response to changes.
Delivery of the right services to the right people at the right time	Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
Increased efficiency in program administration	Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
Improved program accountability	Provide performance measurement for accountability and planning.
	Coordinate with Public Health and other partners, and integrate health outcomes within the Medicaid community.

Table A-14. Improve Accountability

Concept of Operations – Business Improvement Case Study #5 <i>Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy</i>	
As-Is	To-Be
As-Is Summary Each agency and each payer in every state has its own methodology for enumerating providers and categorizing provider roles. The different numbering schemes and nomenclatures impair consolidation of provider profiles and comparison of provider activities. Research on trends, patterns, and potential fraud is time-consuming and labor intensive. It is very difficult to compare a provider's performance in the Medicaid Program with the same provider's profile in Medicare, managed care, and other payer programs.	To-Be Summary The NPI standardizes provider identification throughout the United States. MITA and state collaboration promotes a standardized taxonomy for all Medicaid providers across all States. States are able to monitor provider performance, identify fraud, plan changes to benefit programs; budget for future needs, and clearly analyze outcomes. The SMA staff has more time to analyze results and conduct strategic planning, rather than spending time locating required information. The SMA strengthens Medicaid Program administration. Better planning results in improved functioning of the health care delivery system. The NPI facilitates, accelerates, and improves compliance case development, reduces false positives, and assembles credible and actionable profiles. Strategic planning staff is able to compare a provider's fee-for-service practice and managed care (capitated) practice to determine the cost-effectiveness of managed care.
Details of Current Business Environment NPI Taxonomy: Currently each agency in each state enumerates its providers using its own numbering scheme and definition of provider roles, leading to multiple identifications for each provider, limited traceability and tracking, and barriers to sharing of data.	Details of Future Business Improvements Use of NPI standard in its native format (no conversion) plus a national Medicaid taxonomy results in: Facilitating fraud detection within and across States.

Concept of Operations – Business Improvement Case Study #5 <i>Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy</i>	
As-Is	To-Be
Business impacts are: • Impairs ability for fraud detection, rate comparison, and service comparison. • Creates inefficiencies in provider enrollment. • Leads to inconsistent reporting of MSIS program and service types. • Difficult to measure payment accuracy across public programs.	• Streamlining provider enrollment. • Improving comparability of provider-specific information, tactical, and strategic planning, e.g., comparing costs and benefits of managed care versus fee for service. • Consistent reporting of MSIS program and service types. • Providers can use same taxonomy with multiple payers and multiple States.
Current Constraints <i>Legal and Statutory Constraints</i> • HIPAA NPI Rule enforces use of a national identifier. <i>Technology Constraints</i> • Systems will need to adopt NPI.	Future Drivers <i>Legal and Statutory Drivers</i> • Legislation to require the NPI of any ordering or referring physician or other professional specified on any claim for payment on the bases of an order or referral of the physician or other professional. • The Medicare and Medicaid EHR Incentive Program R&A System for eligible providers. <i>Technology Enablers</i> • Hub architecture to support registration of EHR eligible providers
Current Medicaid Operations Involved <i>Provider Management</i> • Each agency and each payer in every state has its own methodology for enumerating providers and categorizing provider	Future Operations <i>Provider Management</i> • The NPI standardizes provider identification for streamlining Medicaid Enterprise operations for provider enrollment, claim

Concept of Operations – Business Improvement Case Study #5 <i>Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy</i>	
As-Is	To-Be
roles.	processing and authorizations.
Medicaid Business Goals	MITA Business Goals
Improved health care quality and outcomes	Develop seamless and integrated systems that effectively communicate to achieve common Medicaid goals through interoperability and common standards.
Expanded access to health care	Promote an environment that supports flexibility and adaptability and rapid response to changes.
Delivery of the right services to the right people at the right time	Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
Increased efficiency in program administration	Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
Improved program accountability	Provide performance measurement for accountability and planning.
	Coordinate with Public Health and other partners, and integrate health outcomes within the Medicaid community.