Part I — Business Architecture

Appendix A — Concept of Operations Details

MITA: CONCEPT OF OPERATIONS

Introduction

The MITA Framework provides guidance to State Medicaid agencies as they seek to improve their business operations and supporting information technology. Because of the range and complexities of business conducted by the Medicaid agency, models and diagrams are used to show the transformation from the current to the future state at a high level, and examples are used to show more detail in specific business processes.

The objective of this section is to describe the Medicaid enterprise from a business perspective, identify the key 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 the external entities.

Two views are presented: the current "As-Is" generic State Medicaid enterprise and a future "To-Be" Medicaid enterprise. Two types of diagrams are used to support these descriptions:

- A Context Diagram showing the major external entities and the information they exchange with the Medicaid enterprise in the As-Is and the To-Be contexts
- A Concept of Operations (OpsCon) Diagram that expands on the Context Diagram to describe the business operations of the enterprise and the user organization that supports it. Again, there is an As-Is view and a To-Be view.

Together, the Context Diagram and the OpsCon Diagram are used to show the transformation envisioned for the Medicaid enterprise. Key drivers that enable the transformation are also described. These descriptions are first presented at a high level. Next, examples of selected business processes are used to illustrate details of the transformation.

The following storyboard describes the flow of the COO.

The Medicaid enterprise is a subset of a national health information infrastructure.

1. Current Medicaid operations include a number of business processes that support the Medicaid agency's responsibilities and interface with its primary business partners (beneficiaries, providers, and other stakeholders). There are many deficiencies in the current operations, e.g., administrative burden, time lags, labor intensive processes, lack of standardized, consistent, and complete data; redundant services and data collection;

lack of clinical information; and limited collaboration among the many entities that serve the population, e.g., Medicaid, Medicare, substance abuse, mental health, public health, and others.

2. Future operations benefit from the vision of improvements that are attainable in the national health care delivery system supported by the advances of technology, the enforcement of standards, and the advent of the electronic health record (EHR).
3. The Context Diagram illustrates the As-Is environment. The Medicaid agency exchanges key information with its major partners (e.g., eligibility sources send eligibility information, providers submit claims, checks are "in the mail", and reports are produced on a schedule ("whether you want it or not").
4. A companion To-Be Context Diagram shows a different future worldview. In the foreseeable future, transactions (claims, eligibility requests) disappear and are replaced by notifications of new information automatically sent to the appropriate receiver and triggered by entries into the patient's EHR. *Note: Keep in mind that we are in transition towards this future environment and there are many changes required along the way. The COO names the EHR as an enabler of access to clinical data because it is the current solution of choice. However, many changes may occur over the next few years and there could be a better alternative or alternate strategy. MITA moves forward with the times.*
5. To illustrate the differences between the As-Is and the To-Be Context, we use tables to show how the definition and the role of the primary entities (Medicaid agency, provider, beneficiary, etc.) will change in response to the changes in the way information is exchanged and the content of the communication.
6. Next, we take a look at the current primary business processes of the Medicaid agency. We examine today's concept of operations, which includes staff, information technology support, policies and procedures, that support these business processes, as well as a 30-year old tradition of what a Medicaid agency must do. We illustrate the current Concept of Operations with a diagram and narrative and then contrast the current to the possibilities of the future.
7. Then, we associate the changes that are occurring with Medicaid program and MITA vision and goals.
8. With the As-Is and To-Be contrasts in mind, we talk about the drivers that are forcing and/or facilitating this change. We offer examples of primary drivers in technology and standards.
9. To show the possibilities of the future transformation, we offer some examples of business improvements. Several examples are presented to illustrate how we can move from the As-Is to the To-Be.

10. There is a considerable gap between the As-Is and the To-Be. How can the transformation occur? No matter what the current status of a State's enterprise architecture, MMIS, technology investments, financial condition, or other factors, MITA offers a roadmap to successful transformation — "All Roads Can Lead to the Future."

As-Is – High Level Narrative

Currently, the Medicaid enterprise contains several key entities whose relationships and information exchanges have evolved over the past thirty years. Major participants in the Medicaid enterprise are: CMS, the State Medicaid agency, 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. A single State agency is designated in each State, territory, and the District of Columbia to administer the program. State Medicaid agencies pay 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; and 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 14 percent of the GDP 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 envisions a future in which health care stakeholders (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 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 healthcare decisions. Providers and payers are able to focus on their primary functions of care giving and benefit plan monitoring and evaluation because most of the administrative burden of information capture, processing, and reporting will be obsolete having been replaced by direct messaging between data exchange partners.

The future vision is realized through enlightened legislation and program policies and the convergence of data standards and data exchange protocols, enabling technology, and the resulting empowerment of stakeholders to craft a healthier future for all participants. The MITA

Framework is evolving at a time when the health care industry is about to take a quantum leap spurred on by the adoption of the Electronic Health Record, the maturing of Service-Oriented Architecture, the development of Web services, and the NHII expectations of a national health information network through interconnecting RHIO hub architecture.

Context Diagram of the As-Is and To-Be Medicaid Operations

Intro to Context Diagram: Purpose

The enterprise Context Diagram presents a conceptual view of the external entities with which the State Medicaid agency interacts. External entities are conceptual groupings of individuals or organizations based on the role the entities have with the enterprise. Only entities with significant and unique roles within the enterprise are shown. The Context Diagram is tightly linked to the Business Process Model. External interfaces are associated with one or more processes within the Business Process Model.

As-Is Context Diagram

The following *Context Diagram* (**Figure A-1**) illustrates the *key actors* and the *information* they exchange in the As-Is current environment, followed by a brief description of the diagram.

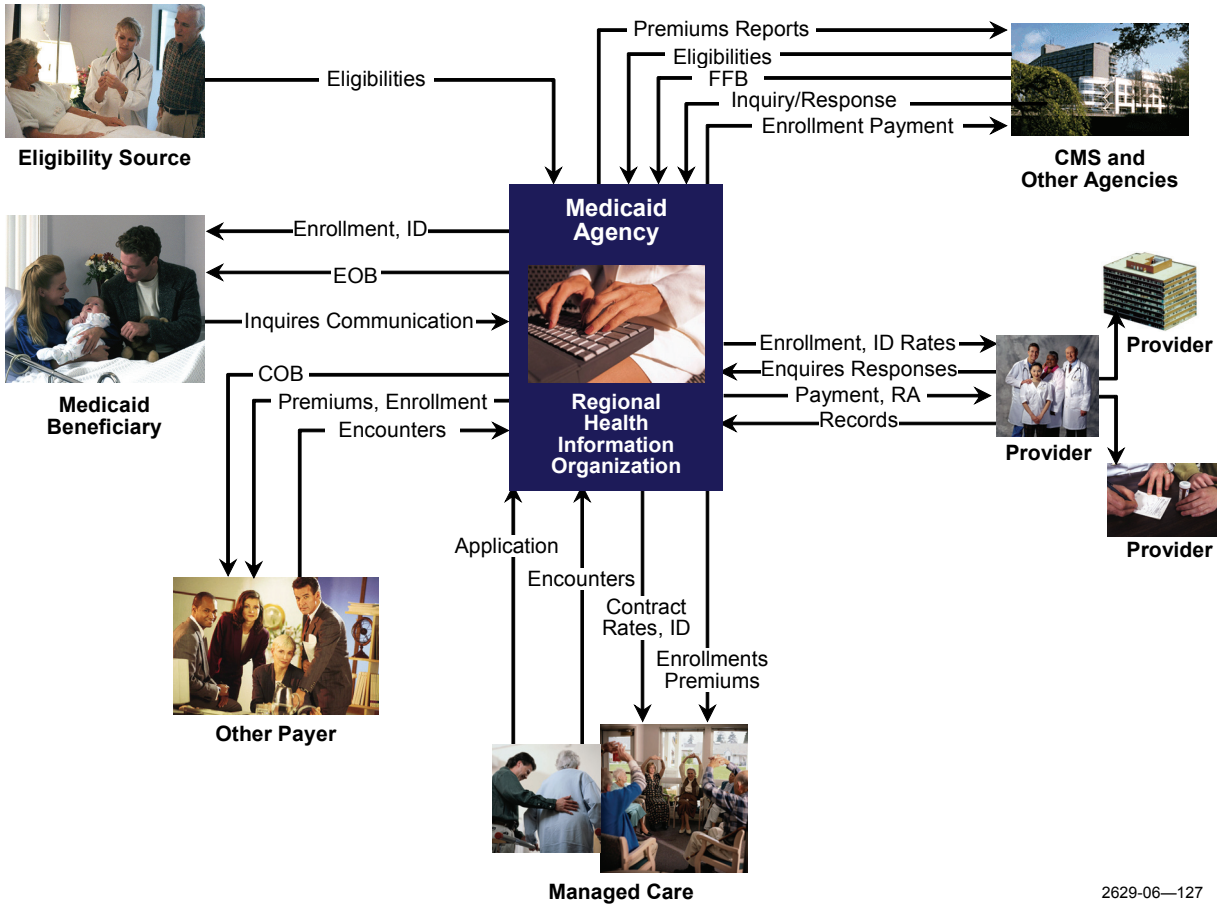


Figure A-1. As Is Context Diagram

As-Is Context Diagram Description

The As-Is Medicaid enterprise diagram 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 State Medicaid agency and its primary data sharing partners in their current roles. The Medicaid agency enrolls providers and contracts with MCOs 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 managed care organizations (MCO) and primary care physicians (PCP), sends premiums payments to MCOs, other payers, and CMS; receives funds from CMS, recovers payments from other payers and providers; receives and pays claims; receives encounter data from MCOs; and responds to inquiries from providers, beneficiaries, other agencies, and CMS.

In the As-Is Concept Diagram only the primary entities and the information they exchange are displayed (e.g., provider, beneficiary). In particular, no business associates are included (e.g., fiscal agent, clearinghouse, enrollment broker, third party recovery contractor, et al.). Other interactions that occur between providers, beneficiaries, and other agencies external to the Medicaid agency may also impact the Medicaid enterprise, e.g., one provider refers the beneficiary to another provider; another agency administers a program that serves the Medicaid beneficiary.

In the As-Is context, 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 U.S.P.S., 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. has been characterized as 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:

- Information about an individual's health status and services received is stored separately in many provider offices and payers' files.

- 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.
- Clinical information, which is the best data for health outcome studies, may be provided upon request but is limited, unstructured, untimely, and expensive.
- Payment related transactions, which are the primary source of data for health outcome studies, have been extensively automated but many other types of communications are unstructured, untimely, and inefficient.

Other characteristics of the current enterprise are:

- Individuals find out about the Medicaid program and apply for benefits at a limited number of special locations (inefficient, impedes access…)
- There are numerous, uncoordinated benefit plans for which individuals may be eligible (this is highly inefficient and leads to "wrong care, wrong time, wrong price"). Beneficiaries must "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 performed manually and results are not communicated timely, impeding access to care.
- Patient compliance with the treatment plan is randomly communicated to the provider because patients have few avenues for participating in decisions regarding their own care and contributing to their personal health record.
- Medicaid program cannot make policy decisions timely or develop accurate budget projections because the data it accesses is untimely, non-standard, and incomplete. Primary source of data is claims-based transactions, which are a poor substitute for clinical data. Other beneficiary data needed for policy analysis, such as demographic, employment, education, vital statistics, and criminal justice sources is difficult to assemble.

Further details regarding the As-Is Medicaid enterprise are shown following the To-Be Context Diagram in a series of comparisons of the current and future environments.

To-Be Context Diagram

A companion *Context Diagram* illustrating the *To-Be* future possibilities is presented to show the transformations in the information exchanges and outcomes we possible in the future. The To-Be Context Diagram shows major changes from the As-Is in the following areas:

- The State Medicaid agency is shown as the primary "owner" of the Regional Health Information Organization (RHIO), a hub, which it has established and shares with partners who agree to the required protocols.
- The major participants in the Medicaid enterprise (providers, consumers, other payers) all communicate with each other via the RHIO.
- Instead of sending and receiving information as is the method used in the current environment, in the future participants will request access to information and receive authorized access to information through the hub. Information is shared by downloading from or viewing at its home base. Data can be "pushed" and "pulled" by trigger events that occur as the participants enter data into their own records. Virtual data records will be assembled "on the fly" for analysis, but there will be no need to store the data centrally or duplicate the data of record, thereby increasing data integrity.

In the To-Be Context Diagram on the next page, the role of the business associates (e.g., fiscal agent, clearinghouse, enrollment broker) diminishes and disappears as the changes are implemented. During the transition period, these associates are required to continue to support As-Is functions. However, when the transformation is completed, all administrative functions will be optimized, and resources allocated to these operations will be dramatically reduced. This reduction in administrative burden will be further illustrated in the To-Be Concept of Operations presentation below (**FigureA-2**).

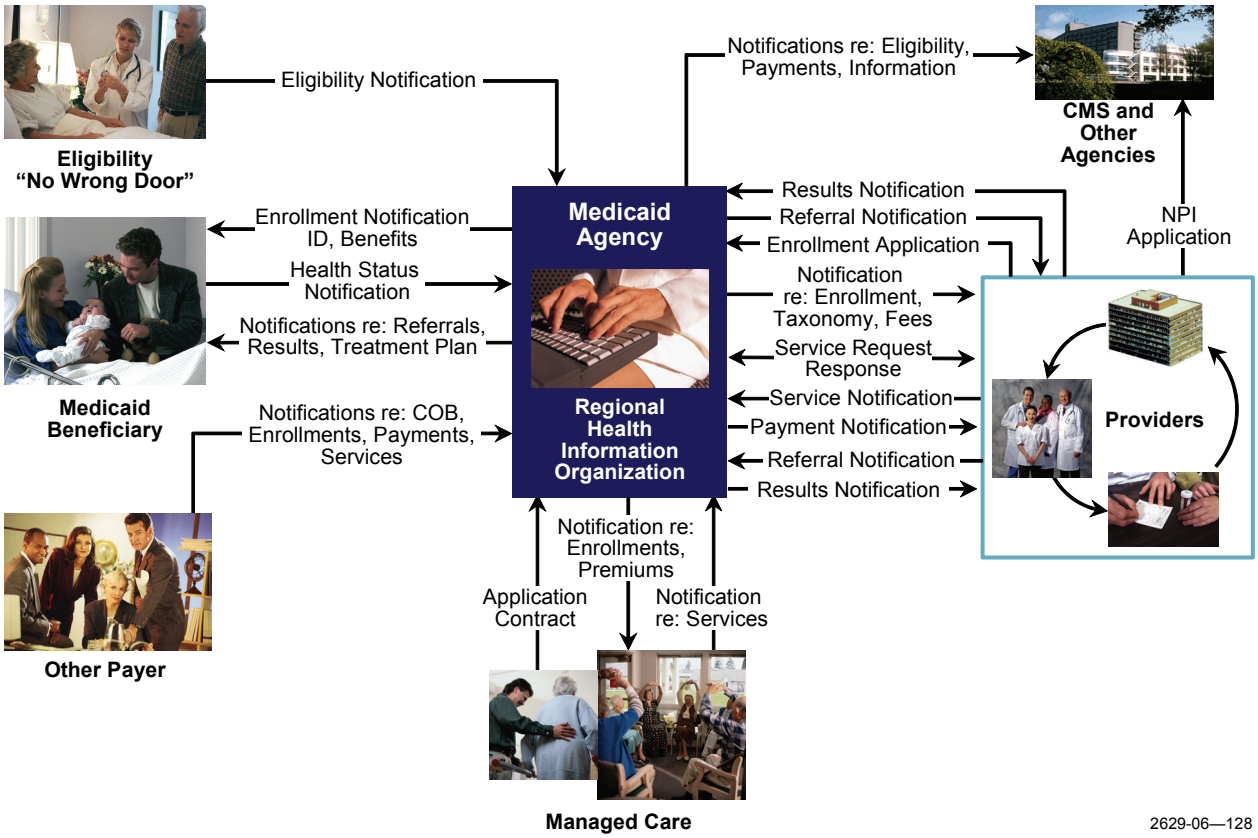


Figure A-2. To Be Context Diagram

Narrative Description of the To-Be Context Diagram

The To-Be Medicaid enterprise Context Diagram illustrates the primary entities (e.g., providers, beneficiaries, CMS, and other payers) and gives a high level view of the information they exchange. In the future enterprise we find most of the familiar primary entities that participate in the current enterprise, however, their roles and the information they exchange have changed dramatically. In addition, one new entity is introduced – the RHIO (a hub).

In the future, the Medicaid agency establishes a RHIO Hub, which serves as a conduit for information exchange participants in the local or regional health care delivery system. External entities, e.g., other payers and agencies, can also participate through agreements and payments of usage fees under a utility model that leverages the Federal funding participation, and covers the non-Medicaid incremental costs of development and maintenance. Information regarding an individual's health status and services received is stored in individual provider locations but may be viewed as needed and according to data sharing agreements with any appropriate entity including the patient, guardian, care-giver, referral service, supplier, payer, and quality assurance organization. A key component to the RHIO Hub is one or more directories, also known as

"registries" with web pointers (URI) to the internet addresses where patient and provider information is located.

The Medicaid program can summarize information accessed through the hub and make it available to external entities such as CMS. The hub responds to specified trigger information to create notifications of disease or bio-terrorism, which are sent to the appropriate local or national agencies. External agencies can use the hub to issue alerts to payers and providers regarding public health and national safety issues.

The future proposes a radical change from the current view of information exchange. Transactions as we know them (claims, checks, reports, and inquiries and responses) will be replaced [messages and transactions are the same thing if they are "records" being transmitted upon which the receiver will act – even if its "sniffing"/process/maybe respond by new and innovative data sharing methods.

One example is by use of notifications which alert intended recipients that new or changed information of interest is now available so that the parties' applications can interface in order to access the data when its needed.

Another approach is the "orchestration" of applications that are synchronized in data-sharing sessions during which applications may performs service for one another and exposes data in accordance with business process rules.

For example, instead of creating and sending a claim, a provider will create a *virtual claim* through the action of entering a service and a date into the patient's medical record During the encounter, the provider's system is synchronized with the payer(s) systems and "tuned" to the appropriate information about the patient's eligibility, benefits, copays, drug formularies, clinical protocols about the type of clinical evidence the provider must have in order for the payer(s) to reimburse for the service, previous treatment history known to the payer(s). At the conclusion of the encounter, the payer(s)' system knows exactly what services were performed and why. There is no need to transmit this information to the payer to be adjudicated. The payer's system simply notifies the payer's bank to deposit funds in the provider's bank. No checks to cash, no accounts to post, no claims to adjust, few opportunities for fraud, and no COB, since all payers know about the encounter and the other payers reimbursement obligations. Similar efficiencies will change the way patients, public health entities and other secondary users of health data interact with the RHIO.

In this future vision, the primary entities will be able to concentrate on their core competencies and will be freed from the current burden of recording, storing, and sending redundant data. Providers will focus on diagnosing, treating, and preventing illness (instead of spending time seeking approval for treatments and payments for services); payers like Medicaid can concentrate on analysis of trends, policy making, quality assurance, and strategic planning (instead of paying claims and premiums; pursing fraud and TPL); and beneficiaries will participate proactively in their health care treatment decisions (instead of the current passive recipient role).

Public Health, other payers, and other agencies will be integrated into the Medicaid enterprise through the RHIO hub, which provides dynamic, virtual access to information stored in each participant's location. Public Health and any other party entering into agreement with the Medicaid RHIO will receive notifications of information they have requested or contracted for automatically and without delay. As the Medicaids develop their RHIOs, these will be linked to form the NHII backbone.

Further details regarding the To-Be Medicaid enterprise are shown in **Table A-1**.

Definition of Key Actors

In the Medicaid enterprise there are a small number of key participants who exchange information critical to the operations and success of the program. Table A-1 identifies the key actors, describes their role in the current (As-Is) domain, and highlights the changes they could occur in the future (To-Be).

Table A-1. Definition of Key Actors

Key Actor/As-Is	To-Be	Change
All Participants are burdened with administrative data collection, transaction exchange, and reporting	Participants are freed 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.
		Electronic health record information dynamically shared through a local health information exchange hub improves administrative efficiencies and promotes better health outcomes.
State Medicaid Agency — By law, the designated single State agency responsible for administering the SSA Title XIX medical assistance program (Medicaid)	The single State agency collaborates with other State and local organizations through information interchange agreements.	Medicaid agency creates "No wrong door" for applicants and aligns individuals with coordinated services to optimize health outcomes through flexible programs. The Medicaid agency focuses on achieving program efficiencies and accountability, and contributes to safeguarding the health of the population. Manual operations are significantly diminished; strategic functions are enhanced.
		Medicaid agency has immediate access to all appropriate information available for strategic planning, outcome measurements, and oversight. Manual operations are replaced by system-to-system communications.

Key Actor/As-Is	To-Be	Change
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)	Local Health Information Network – Community or regional health information networks serving as a conduit for health information interchange, including immunization and disease registries, for the subscribers	Health care outcomes are improved and public health safeguards are ensured through the sharing of information across the enterprise. Local/regional RHIOs are connected to each other and to Federal hubs. The RHIO routes requests for information and responses across all participating members. Hub models in Santa Barbara, CA and Indianapolis
Centers for Medicare & Medicaid Services (CMS) — A division of the U.S. Department of Health and Human Services (DHHS) that includes the Center for Medicaid and State Operations (CMSO)	The Federal Medicaid enterprise — defined as a collaboration among DHHS agencies who exchange information with State Medicaid enterprises	Federal agencies collaborate to improve health outcomes nationally. Federal agencies implement information interchange hubs that include State Medicaid agencies, or, at a minimum, enter into agreements to participate in State Medicaid enterprise hubs.
Beneficiaries — Applicants and eligibles for State Medicaid program benefits	Applicants and eligibles for State Medicaid program benefits coordinated with other programs	Beneficiaries are empowered to proactively participate in their health care regimens. They benefit from "no wrong door" and administrative efficiencies. Benefits follow the person; beneficiaries take proactive part in managing their health care benefits by self-directing their care.
Providers — Providers of service including case managers and home and community-based care givers serving the Medicaid population	All participating providers linked through the Local Health Information Network hub to each other and the client populations; NPI and Medicaid taxonomy enable tracking and reporting via the RHIO Provider Directory	Providers are freed from administrative functions (e.g., eligibility and service authorization requests; claims preparation) and can concentrate on the delivery of care, client education, and prevention. Primary, referring, tertiary providers communicate with each other via the RHIO hub; appropriate information available on demand; reduces redundant data storage.
Managed Care Organizations (MCO) — Corporations who contract with the State Medicaid agency to provide enrollees a defined set of services for a fixed per member per month premium	MCOs and their contracting providers share information via the RHIO. MCOs receive Medicaid enrollment information online, real time, 24X7 and premiums are immediately deposited in MCO bank. Health Insurance Premium Payment (HIPP) expands as an alternative to MCOs	MCO encounter and clinical information is immediately available to the Medicaid agency. Appropriate information 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. RHIO supports ongoing alerts about the availability of new financial and socio-economic data about beneficiaries that impacts their eligibility from sources that are now queried manually, ad hoc reporting and massive file transfers. Examples include State and Federal employment taxing authorities, workers' compensation agencies, child support enforcement agencies, the justice system, and schools. If this data indicates new health coverage options, the Medicaid may decide to enroll the beneficiary into the HIPP program.

Key Actor/As-Is	To-Be	Change
Eligibility Source — Multiple Agencies may determine eligibility for different packages of Medicaid benefits requiring Beneficiaries to fill out multiple applications and duplicative staff to process, with no means of coordinating the benefit packages so that they are not overlapping and provide all available services. Verification of beneficiary eligibility may be done differently by different sources	"No wrong door" Programs share core application information and aggregate program-specific questions so the Beneficiary only needs to provide this information once. Programs coordinate benefit packages to maximize availability of needed service as well as FFP. All programs coordinate eligibility determination rules and benefit package design.	Determination process is automated and can easily be completed in linguistically, culturally and 503 compliant way online, at provider's offices, and in public facilities. Waiver beneficiaries are allowed to self-direct their services within their budgeted benefits and assisted with decision-making tools to do this independently, if they like. Caseworkers focus on assisting less able applicants and beneficiaries.
		Providers verify patient's eligibility for all programs via the Patient Directory in the RHIO. The RHIO enables authorized providers' EHR-S to use Directory links to access patient ID, demographics, program-specific benefits, treatment history and clinical protocols.
Other Payers — Other benefit programs with liability to cover medical costs for Medicaid beneficiaries	Other benefit programs share benefit coverage with Medicaid via the RHIO through links in the Patient Directory. Embedded rules automatically perform coordination of benefits; hub participants benefit from an immediate cascade of liability calculations	RHIO Patient Directory contains links to all programs in which a patient is enrolled. The various programs' eligibility, benefits, treatment histories, and clinical protocols required for payment are "called" , using the Directory links, by the Providers' EHR-S during an encounter. Programs' systems share COB and payment liability information and apply liability rules prior to transferring funds to the providers' bank accounts for payment at the conclusion of the encounter.
Other Agencies — State, local, Federal agencies that exchange information with Medicaid using different media, connectivity, format and data content. Often the same data must be reported in multiple way multiple times. Most critical is the untimely secondary reports of clinical information to public health.	Others agencies collaborate with the State Medicaid agency to automate access to data of record, permitting authorized users to build virtual data records, perhaps from multiple data sources, whenever they need to.	RHIO Patient Directory contains links to demographic data required for enrollment. For Medicaid Beneficiaries, this will likely include links to financial and socio-economic data sources. Medicaids can use these linkages to build virtual records about beneficiaries needed for HIPP, eligibility determination, and outcome and performance measures. Other agencies, most importantly, public health, have authorized access to Medicaid beneficiary data for surveillance and analysis purposes.

Comparison of Key Actors and Major Data Exchanges in the As-Is Context and the To-Be Context

Table A-2 compares the differences in the definition of the Key Actors and their Major Data Exchanges in the transition from the As-Is to the To-Be. The table focuses on high-level data exchanges from a business perspective, and points out the limitations today and the improvements possible in the future.

Table A-2. Major Data Exchanges

Major Data Exchanges and Their Limitations — As-Is	Future Business Improvements Major Data Exchanges – To-Be
General characteristics of the As-Is data exchange: 1. Transaction-based 2. Standards now apply to certain designated electronic transactions 3. Require mapping to internal systems and between standards, which degrades data integrity. 4. Largely manual (telephone, mailed paper, facsimilies) 5. Limited 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 EOMB, responses to requests) 7. Collecting data for evaluation and analysis is slow and inefficient; data is often not comparable 8. Reporting of information is burdensome on all because it is duplicative and automated ,and suffers from inconsistencies, redundancies	General improvements in the future: 1. Transactions replaced by messages brokered through HUBs as services; later by “sessions” of communication directly and immediately between the parties sharing the information 2. Data exchange standards apply to all who participate in the exchange of information 3. Manual exchange of information is obsolete and exceptional 4. Clinical data is readily available to those approved to access it 5. Beneficiary has access to and may contribute personal health information, treatment plans, and preventive health guidelines 6. Redundant data collection and reporting is minimized 7. Dynamic information sharing makes key health data available instantly to those authorized

Major Data Exchanges and Their Limitations — As-Is	Future Business Improvements Major Data Exchanges – To-Be
Eligibility determination staff from different agencies capture the same personal information at designated locations and send results to different Medicaid programs. Applicant receives benefit information at the eligibility offices. Later, beneficiary receives enrollment status information and ID number and card in the mail separately for each program. Beneficiary demographics are collected in multiple ways and stored in multiple sites, which degrades data integrity. Medicaid programs and MCOs mail a paper ID card monthly or a plastic/embossed/magnetic strip card annually or periodically.	The applicant obtains all programs' benefit information, provides personal information once, and receives eligibility status and ID number for all programs through multiple portals to a Resource Center ("no wrong door"). Beneficiary demographics are collected in a standardized way and stored in only one record, improving data integrity. Key beneficiary demographics loaded, maintained, and updated in the RHIO Patient Directory according to Master Person Indexing (MPI) rules. Eligibility status is dynamically available to those approved to access it. **NOTE:** All RHIOs can search on each others' Patient Directories using MPI search rules to locate Patient data held in other RHIOs. [**NOTE:** Only "histograms" would be permissible at this time – e.g., individually unique way of using a Medicaid specific signature pad or keying device to protect Privacy.]
Beneficiary reports health status during visits. Receives test result information via telephone and the mail.	Beneficiary notifies provider via portal and with monitoring devices[1] about their health status and treatment compliance. This information is collected in the Beneficiary's Personal Health Record (PHR) When Provider receives test results, these are stored in the patient's EHR These will also be available in the Beneficiary's PHR, and an alert will be sent to the Beneficiary along with any narrative the provider may send.
Providers submit enrollment applications, have credentials verified and receive enrollment status; identification number; taxonomy; fee schedule/rates multiple times for multiple programs.	Providers apply for and receive NPI; communicate NPI and taxonomy data to Medicaid agency; Medicaids standardize their use of taxonomy to lower provider burden and improve data integrity; other agencies may collaborate with Medicaid in a "one stop shop" all-purpose application and credentials verification; enrollment status, Medicaid taxonomy, rates are dynamically available to those approved to access it.
Medicaid agency receives application from MCO; sends MCO contract. Contracts are negotiated and rates set for entire contract period.	Medicaid agency receives MCO application via portal; notifies MCO re contract. Rates are adjusted continuously based on case-mix calculated from real time access to encounter and patient demographic data.

[1] Health optimizing and cost-saving use of monitoring devices for chronic care management by Veteran's Administration and others is discussed in "Chronic Care Improvement: How Medicare Transformation Can Save Lines, Save Money and Stimulate an Emerging Technology Industry" An ITAA E-Health White paper at http://www.itaa.org/isec/docs/choniccare.pdf

Major Data Exchanges and Their Limitations — As-Is	Future Business Improvements Major Data Exchanges – To-Be
Medicaid agency sends enrollment information electronically to MCO, and sends premium payments to the MCO's bank in paper or electronic format. Medicaid beneficiaries often stay on FFS until the beginning of a new premium payment period begins, which results in disruptions to continuity of care.	Medicaid agency notifies MCO that new enrollment information is available in the Patient Directory and that premium payments are immediately posted to the MCO's bank for "same day enrollment". Beneficiaries are immediately enrolled in their chosen MCO and continuity of care under Medicaid is not disrupted. Rates are based on actual enrollment date and the beneficiary's health status and demographics.
Medicaid agency receives encounter data from the MCO in electronic format. Encounter records may be outdated, incomplete, inconsistent, and not in alignment with the provider's medical record. *Deficiencies in encounter data impede monitoring of appropriateness and quality of services provided. Medicaid agency is not able to make timely and accurate comparisons of fee-for-service and managed care costs.*	Medicaid agency receives *notification that new encounter data* are available at the point of service, at the same time that the MCO is notified that the service has been provided. MSIS compiles virtual encounter records by linkages to RHIO Patient Directories on a real-time bases to enable ongoing updates to Medicaid statistics.
Providers *request authorization* to provide and receive payment for designated services.	Providers enter *treatment plan information* into *EHR*; and based on Medicaid coverage, treatment history and clinical protocol data presented by the MMIS to the EHR-S during the encounter, the provider can make treatment decisions that align with Medicaid payment policies. *There is no need for a service authorization request transaction except for exceptional cases and appeals that may require manual review by clinical staff.*
Primary providers write *referrals to request service* from other providers. Often hand written and hand carried to a pharmacy or lab.	Providers enter service requests into the EHR. This triggers a *notification* to the referral provider that the service information is available. The secondary provider accesses this information automatically when the patient presents and the EHR-S aligns this with relevant coverage, treatment and clinical protocol information presented by the MMIS.
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 electronic format. *Clinical information* will be added soon through the implementation of the X12N/HL7 Claim Attachment transaction. However, unless the Claims Attachment data is structured using LOINC, the clinical data transmitted is not optimized for automated analysis.	Providers enter service completed and test result data into the *EHR*; The MMIS, which is participating in the encounter and has shared data on eligibility, provider enrollment, benefits, treatment history and clinical protocols, and is aware the of provider's adherence to Medicaid payment policies, transfers funds into the provider bank .*There is no need for a hard copy or electronic claim, remittance advice, or check*.
Providers receive paper or electronic *Remittance Advices* that describe the payment decision, status, and results.	Provider knows at the point of service that the service is covered, payable, and for what amount. This information is 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 payment has been posted. Provider knows at the completion of the encounter whether there are any disputes about payment for the service.

Major Data Exchanges and Their Limitations — As-Is	Future Business Improvements Major Data Exchanges – To-Be
Medicaid agency determines that beneficiaries have other insurance. Indicators are set in 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, which is participating in the encounter, calculates its liability and makes appropriate remuneration to the provider's bank at the conclusion of the encounter.
Medicaid agency determines that beneficiaries have other insurance after payment. Medicaid contacts the provider or other payer to collect repayment. *Much time and money are spent in the pursuit of payment ("pay and chase").*	There is no pay and chase – see above
Medicaid agency submits applications to enroll the beneficiary in other payer (HIPP) or agency (e.g., waiver) programs or carve-out benefits (e.g., managed mental health, dental, or pharmacy benefit management plans). Medicaid agency sends premium payments electronically or coordinates finances with other agencies including CMS (Part B premium). Other parties may send claims, encounters, or service information to Medicaid.	MMIS is aware via RHIO Patient Directory when other external data sources receive or update key demographic, financial or socio-economic indicators for the beneficiary that may indicate potential sources of non-Medicaid health coverage. MMIS automatically solicits enrollment and premium payment information from such sources. For example, if a spouse of an ADAP beneficiary changes employers and the new employer has health coverage, the MMIS will compare benefits and determine whether the ADAP client should be enrolled in the spouse's employer plan. If so, the MMIS will terminate the beneficiary's MCO or FFS enrollment, enroll the beneficiary in the spouse's plan (with notice to the spouse and beneficiary) and pay the HIPP premium.
Medicaid agency prepares CMS budget report, invoice, and MSIS report.	CMS systems generate virtual records to derive MSIS and other budget report data related to services paid for under the Medicaid program on an ongoing basis via RHIO Patient Directories. For administrative reporting, CMS systems interface with MMISs to derive records needed for reports.
Medicaid agency receives Medicare eligibility information from CMS.	No longer needed. Medicare eligibility information available via RHIO Patient Directory
Medicaid agency responds to requests for information from State legislature, Governor, other State agencies, CMS, other Federal agencies, and the general public. Responses may be time consuming and costly; data may not be timely or reliable.	MMIS able to assemble econometric data from external sources related to beneficiary (via Patient Directory) and via data sharing agreements with external sources of health, financial and socio-economic data to support program outcome and performance measures based on comparison of beneficiaries served by program with peers not served.

Medicaid Business Areas and the Concept of Operations

Introduction

The enterprise Concept of Operations 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 OpsCon captures how, in general, the Medicaid enterprise functions today. The To-Be future State OpsCon is an expansion of the Business Vision of how the Medicaid enterprise might function in the future.

The OpsCon should "tell a story" that describes the what, where, when, who, why, and how the business operates, primarily from a business or users' perspective.

The next sections expand on information presented in pages I.A-1 through I.A-18.

As-Is Medicaid Business Processes

The Single State Agency 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. We have adopted the business process names used by the S-TAG in its *Redefinition of the 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, and we have added a new business process, External Data Exchange, to illustrate the data sharing capabilities in the future. The following figure illustrates the major business processes.

The association of major functions and business areas is presented as a starting point in the evolution of MITA business definitions. States will be able to adapt and extend the basic core function for their unique business areas as long as they adhere to the basic adaptability principles of the MITA Framework. In some cases, business processes may need to be packaged to facilitate reusability of components. As MITA evolves, the business areas may be extended to accommodate new functionality, or business areas may be linked to combine forces while preserving the original model.

The functions listed in **Figure A-3** were identified during the data collection activities of the MITA year 1. They result from interviews with State program staff, the CMSO, CDC, SAMHSA, HRSA, AHRQ, and subject matter experts in eHealth and eGovernment initiatives, such as NHII, as well as Standards Development Organizations and Public Health data standards makers. Data sharing and exchange are based on enterprise-wide data standards as the pre-condition. Actual implementation requires agreements among the data sharing community to use

common protocols, utility services, and data standards. These are examples of potential data sharing and exchange functions that may result as the MITA Framework evolves.

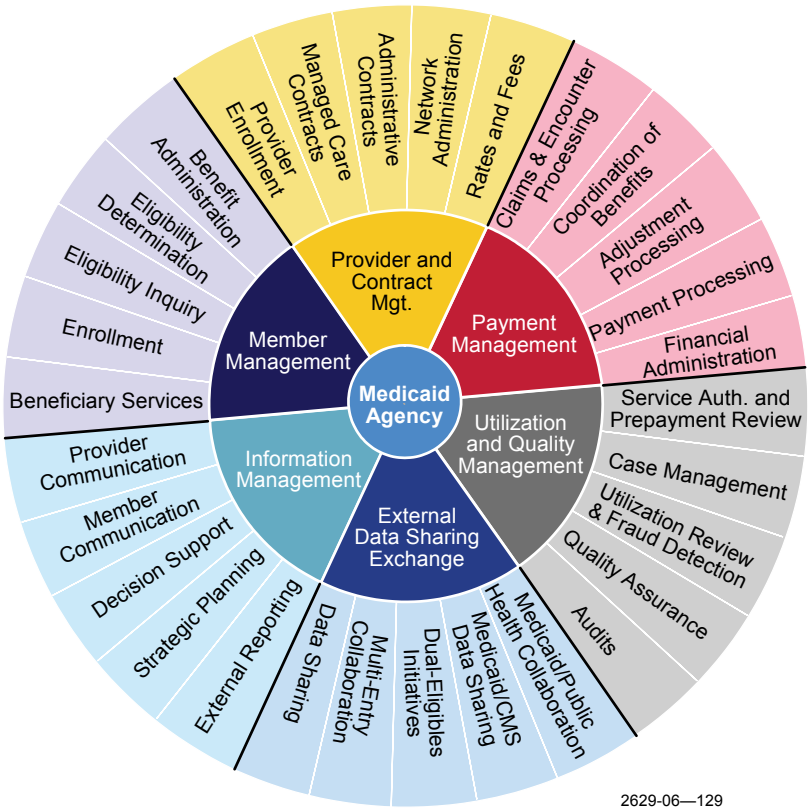


Figure A-3. Medicaid Enterprise Business Functions

Member Management Business Functions[2] incorporates benefit plan administration, eligibility determination, enrollment, and disenrollment in programs, and beneficiary services. It encompasses functions associated with the design of benefit plans and pricing, including waiver, HIPP, PCCM and MCOs; the identification of the individuals covered by the benefit plans, definition of services provided, and communication of this information. It does not include the direct provision of the service or information gathered about the services. It defines business processes at two levels [what's this?? I don't get the two levels]]to further explain the business area. Individual States may choose to separate Eligibility Determination, Eligibility Verification, Enrollment, and Benefit Administration into separate high-level business.

[2] This diagram predates the Framework 2.0, Part I Chapter 2, Concept of Operations, and Part I Chapter 4, Business Process Model. The earlier enterprise functions have been replaced with new business areas.

Provider and Contract Management Business Functions groups all functions 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 Medicaid agency, 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 functions associated with determining payment, making payment, receivables, and reporting regarding these functions. Encounters are included in this business area, because they may be used to determine capitation rates, and because of the HIPAA Transaction and Code Set rule, encounter and claim transactions must adhere to the same standards. States that have a primarily managed care program may choose to associate encounter functions with a high-level Managed Care Organization (MCO) management business area. Some States may consider Coordination of Benefits (COB) a high-level business area.

Utilization and Quality Management Business Functions is a high-level business area that brings together various functions that share common goals: ensuring the quality of care received by beneficiaries while controlling costs. An individual State is free to link these functions with other business areas, e.g., Service Authorization and Prepayment Review with Payment Management. This grouping is offered as a starting point for the MITA Framework. States can link functions between various business areas to meet their unique vision and goals.

Information Management Business Functions covers functions associated with internal information retrieval and reporting within the State Medicaid agency. External information management is covered in the next business area—External Data Sharing and Exchange.

External Data Sharing and Exchange Business Functions is a new business area introduced with MITA. Currently, information is requested between organizations (e.g., CMS and Medicaid agencies; State Medicaid agency and local public health agencies) but the process is time-consuming and labor intensive, and the information may be incomplete and inconsistent. In the future, the External Data Sharing and Exchange business area links State Medicaid agencies with CMS, public health agencies, CDC, and any other potential data exchange partner that agrees to adopt the standards and criteria that each State Medicaid agency specifies while adhering to MITA guidelines. The individual State specifications will be aligned with MITA requirements.

As-Is Concept of Operations

On the next page, **Figure A-4** depicts the Concept of Operations for the As-Is generic Medicaid enterprise. It shows the interfaces between current Medicaid operations and the key participants in the Medicaid enterprise.

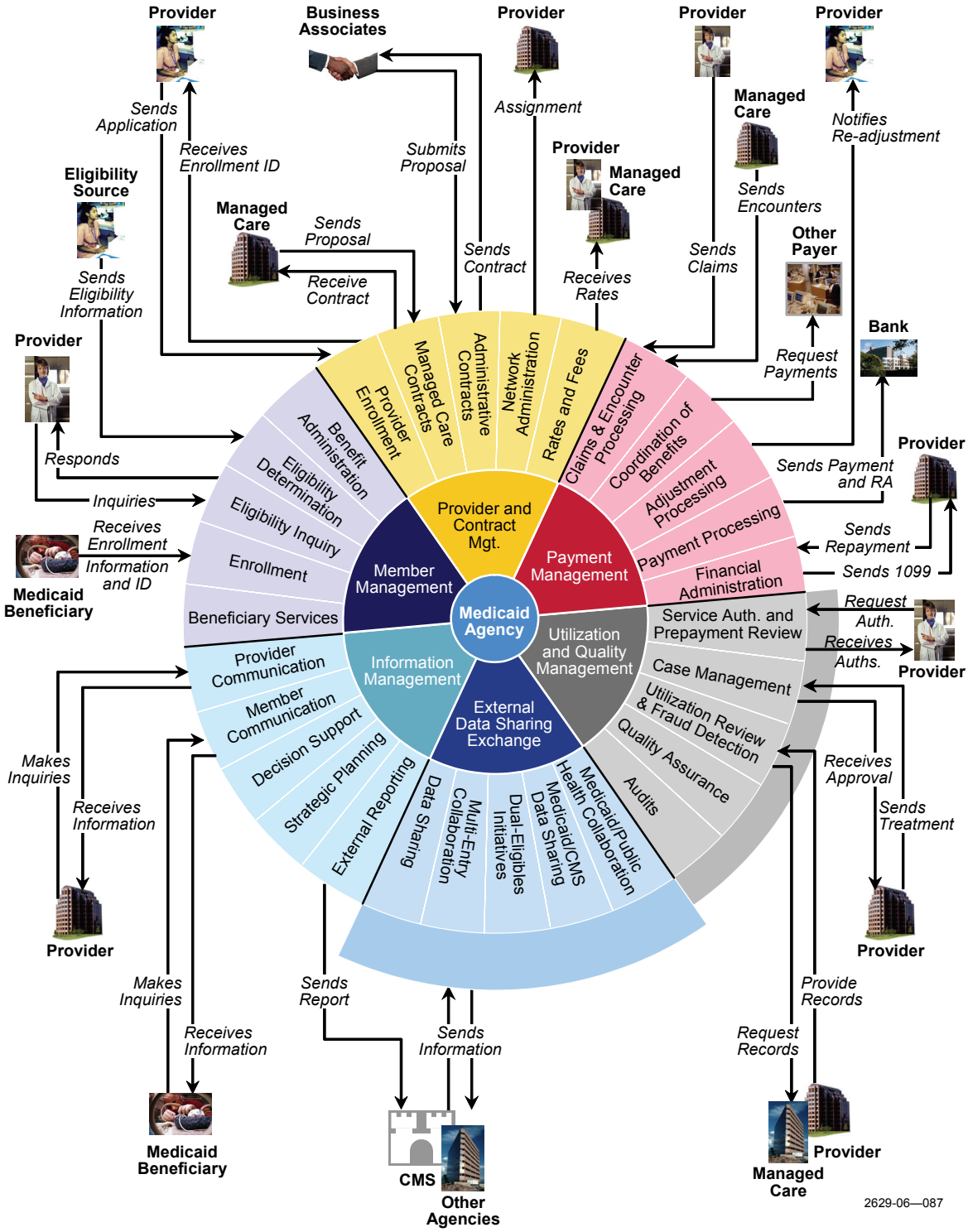


Figure A-4. As Is Concept of Operations

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. We can envision but not predetermine this future structure. The following is a possible organizational structure for the Medicaid agency of the future. These changes will occur over time and the agency may evolve over several years. Possible migration paths for States depending on their current status and strategic goals are discussed in Section 8, Transition Plan.

On the next page, **Figure A-5** depicts Medicaid operations as they might be seen in the future.

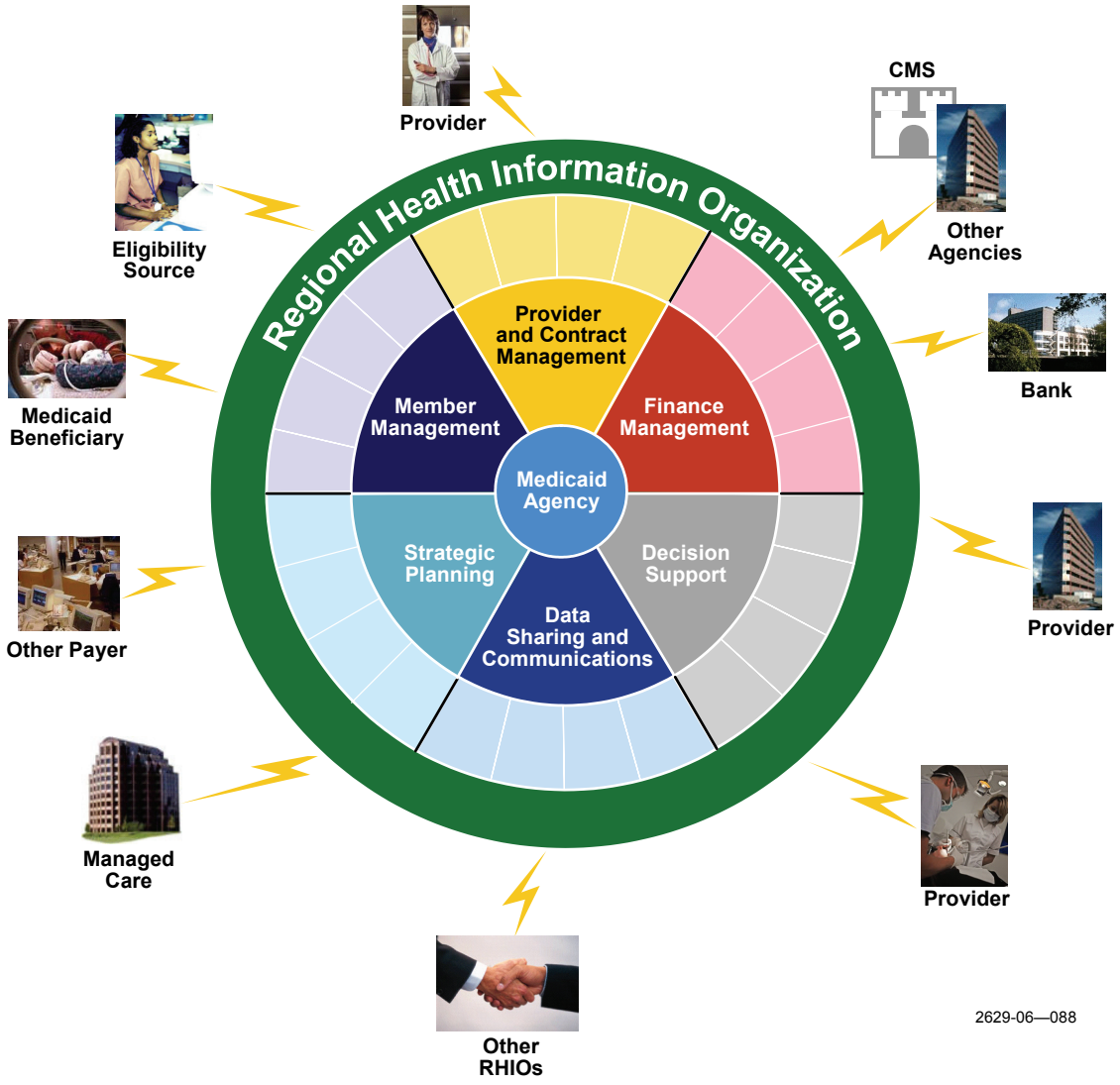


Figure A-5. To Be Concept of Operations

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

Medicaid operations have evolved over the past thirty years. Currently, the mature Medicaid agency 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, USPS, telephone, and FAX services are still widely used for provider enrollment, prior authorization, and checkwrite processes.

Table A-3 contrasts the As-Is and To-Be Concept of Operations. We predict that a paradigm shift will occur sometime within the next 10 years so that To-Be operations will not map back exactly to the As-Is model. The As-Is model of operations is aligned with the Medicaid agency business process model.

Table A-3. Comparison of As Is and To Be Operations (Under Construction)

As Is Operations	To Be Operations
Member Management (MM)	
What MM operations do now: ■ Eligibility sources determine eligibility and send information to MM. MM sends benefit and ID packages to the beneficiary, helps select MCO enrollment, performs other enrollments, answers questions, surveys quality of service, and hears complaints and appeals. MM maintains beneficiary information. MM responds to inquiries re eligibility. MM may oversee case and disease management. ■ MM 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 MM operations can change in the future: ■ MM operations are less burdened with the eligibility and enrollment process because: – Applicant will apply through various portals and much of the process will be automated – The beneficiary is able to participate in choices ■ MM operations focus on analysis of program outcomes: are beneficiaries receiving better care, are they more satisfied, are health trends improving, etc. ■ MM focuses on exception cases because patients have access to their own information,…. ■ MM has accountability for health care improvements for the population
Deficiencies in As-Is operations: ■ Except for the eligibility records themselves, most MM functions are supported by manual processes. ■ There is little outcome or medical information readily available; conclusions are based on surveys and claim or encounter data. ■ It is time consuming for the beneficiary to find out information about benefits, health status	Improvements in To-Be operations: ■ MM accesses patient EHR information to monitor cases ■ MM has access to medical history and outcomes to assess impact of benefit plans ■ MM staff collaborate with other agencies and payers to ensure optimal services for Medicaid clients ■ Beneficiaries access MM information on benefits directly ■ Information is timely, accurate, comprehensive

As Is Operations	To Be Operations
Summary of As-Is operations: ■ As-Is operations concentrate on the maintenance of eligibility data. ■ MM 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 operations: ■ MM operations are transformed into activities to monitor and assess services received by patients, improvements in health outcomes across the population, and enhancements to benefit plans ■ MM collaborates with other health plans to provide enriched, non-redundant, and high performing benefit programs ■ Many As-Is processes are no longer needed; attention shifts to evaluating and improving Member 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; enroll providers in special programs ■ P/CM determines billing rates and premiums ■ P/CM arbitrates providers' and contractors' disputes	How P/CM operations can change in the future: ■ Applications and communications are largely automated ■ Providers are enrolled timely with NPI and taxonomy assigned ■ Rates and premium calculations are based on a rich source of information: claims, encounter, EHR, vital statistics, many other sources
Deficiencies in As-Is operations: ■ Many processes are manual, labor intensive, 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 ■ Interactive communications are limited to HIPAA EDI transactions	Improvements in To-Be operations: ■ Performance monitoring improves services for patients and provider satisfaction ■ Rates and premiums are determined rationally ■ P/CM operations focus on monitoring provider performance, identifying problems in the delivery system, enhancing program outcomes, 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 operations: ■ Focus is on assessing delivery system, improving services, provider satisfaction, patient outcomes ■ Fees and premiums are based on comprehensive data and are fair and acceptable ■ Many As-Is processes are no longer needed; attention shifts to evaluating and improving P/CM Services
Payment Management	**Finance Management**
What MM operations do now: ■ Heavy focus on claims and encounter processing, adjudication, and payment	How MM operations can change in the future:
Deficiencies in As Is operations: ■ Changes to payment rules are time consuming ■ Processes, although automated, require much manual intervention and maintenance	Improvements in To Be operations:
Summary of As Is operations:	Summary of To Be Operations:
External Data Sharing and Information Exchange	**External Data Exchange**
What MM operations do now:	How MM operations can change in the future:
Deficiencies in As Is operations:	Improvements in To Be operations:
Summary of As Is operations:	Summary of To Be operations:

As Is Operations	To Be Operations
Information Management	**Decision Support**
What MM operations do now:	How MM operations can change in the future:
Deficiencies in As Is operations:	Improvements in To Be operations:
Summary of As Is operations:	Summary of To Be operations:
Utilization and Quality Management	
What MM operations do now:	How MM operations can change in the future:
Deficiencies in As Is operations:	Improvements in To Be operations:
Summary of As Is operations:	Summary of To Be operations:
Strategic Planning	
What MM operations do now:	How MM operations can change in the future:
Deficiencies in As Is operations:	Improvements in To Be operations:
Summary of As Is operations:	Summary of To Be operations:

Medicaid Program and MITA Mission and Goals

In year 1 of the MITA project, the mission and goals of the MITA initiative were established and aligned with the CMS/State mission and goals for the Medicaid program.

Introduction: Mapping Key Medicaid Program Business Improvements to Mission and Goals

- Enable "No Wrong Door "– Applicants for benefits find easy access to appropriate, coordinated services
- Optimize health outcomes through sharing of clinical information
- 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

Drivers (a.k.a., Enablers)

The improvements forecast for the Medicaid enterprise in the future are enabled by the convergence of enabling technologies and standards which have reached a point of maturity after several years of evolution.

Key enablers are:

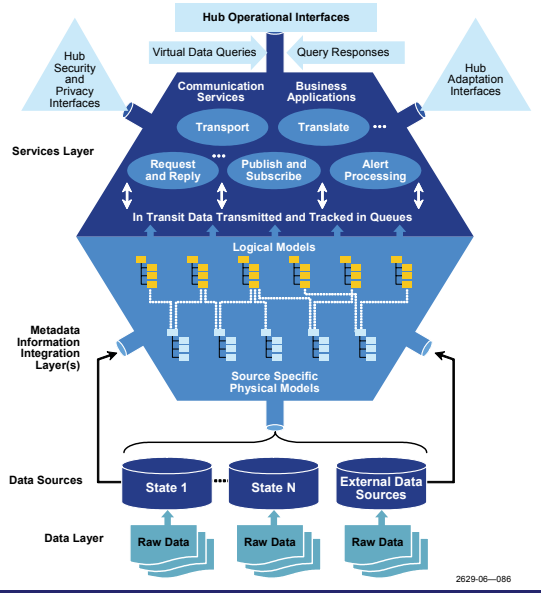
- Hub Architecture
- Utility Service Architecture

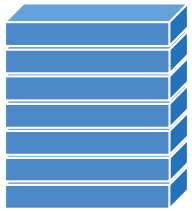
- Services
- Service-Oriented Architecture (SOA)
- The Electronic Health Record (EHR)
- Case Management EHR
- Expert System DSS
- Business Process Orchestration
- Customer Relationship Management (CRM) Applications
- Meta Data
- Registries

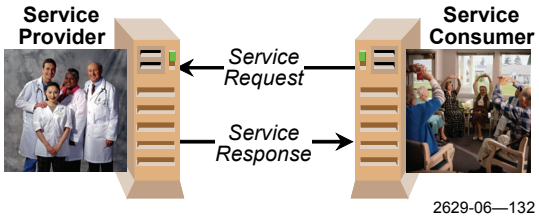
Table A-4 describes the enabling technology and explains its role in making the Medicaid enterprise of the future possible.

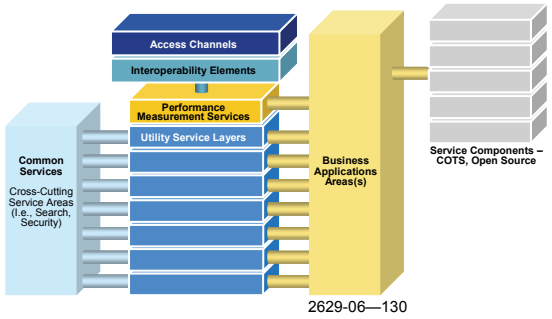
Table A-4. Enabler/Description

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
Hub Architecture A Hub is a communications center that subscribers use to send and receive messages or connect a subscriber to others' data. ■ Hubs provide the common and services needed by all the subscriber systems. ■ Hubs allow systems to share data without having to move it to a central location. ■ Hubs are like telephone companies. They use centralized capabilities that enable multiple systems to "talk to one another" without having to coordinate with each other separately. ■ An MMIS may have multiple Hubs that can communicate with Hubs external to the Medicaid enterprise. ■ Other terms for technologies used by Hubs are "integration engines", "middleware", "registries", and "translators."	**Business Impact** Data sharing, performance and outcome measures, and program innovation are impeded by system design. Every time a program needs a new source of data, a new relationship must be set up with the owner of that data.	**Business Impact** States share data internally and externally with ease. Program innovation is facilitated by ability to access data from multiple sources easily.
	Operational Impact Staff and resources are used inefficiently because of system lacks functionality. Staff must coordinate 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.	**Operational Impact** Staff and resources can be reallocated to enterprise critical activities.
	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 in a data warehouse. Adding components from various vendors is difficult because of these custom interfaces.	**Technical Impact** 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.

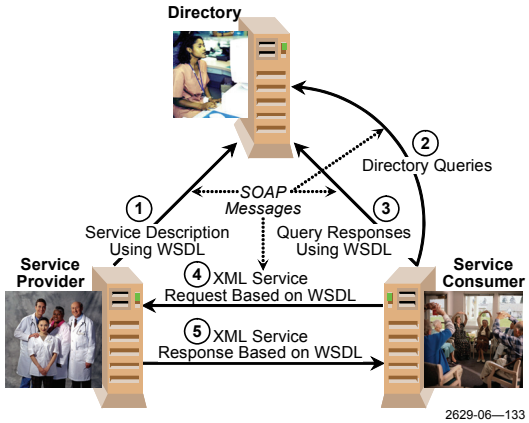
MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
	**Concrete Example** Many States have several enrollment systems from which the MMIS recipient file is updated. Each system must have a special program written to support the exchange of enrollment information. Access to each system is denied while updates are in process. Difference in components' data requires mapping that results in errors and data degradation. Staff spends time remediating errors. Erroneous data causes overpayment of capitation to MCOs and mistaken eligibility denials and missed TPL opportunities. **NOTE:** States that have installed translators for HIPAA compliance already have a key component for SOA. The data mapping, transactional and messaging capabilities and ability to access data from multiple sources are current uses of translators that can be enhanced to perform the utility services and enterprise integration that MITA envisions.	**Concrete Example** Several States collaboratively design and develop an automated service review (prior authorization) module. This module can use State specific clinical protocols and business rules to process 278 health services authorizations and 275 Attachments and HL7 CDA containing LOINC codes and DICOM. The module has standard interfaces that can access data about eligibility, claims history, and claims processing. The module is supported by utility services (see description below). Once this module is developed, 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.

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
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. See MITA Framework Volume 2, p.23.  2629-06—131	**Business Impact** *Same as Hub*: Data sharing, performance and outcome measures, and program innovation are impeded by system design. Every time a program needs a new source of data, a new relationship must be set up with the owner of that data. Without predefined utility services, new business processes require solving business issues like access, security, and technology requirements over and over again.	**Business Impact** *Same as Hub*: States share data internally and externally with ease. Program innovation is facilitated by ability to access data from multiple sources easily.
	Operational Impact Business processes are less efficient because staff are required to structure and schedule their tasks around systems that have different ways of performing common functions.	**Operational Impact** Uniformity of common system functions makes them “transparent” to staff and do not interfere with the structuring or scheduling of business processes.
	Technical Impact Incompatible utility services create system configuration problems that impede optimal system use. Components are not easily migrated to new environments.	**Technical Impact** Uniform, compatible utility services ensure ease of system configuration, support “plug and play”, and enable reuse of components.
	Concrete Example Systems have redundant and incompatible security requirements. Staff must log in and out of each application. There is no consistent way for an application to be authenticated by another system with which it must interact.	**Concrete Example** Systems share security utility services so that staff can access them using one log-on and systems can be authenticated in a standard manner.

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
Services A service is any output from an application that can be received as input by another application or user (service consumer).  2629-06—132 ■ 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 defined in a way that is understandable to both the service consumer and service provider. ■ A service provider can also be a service consumer. http://service-architecture.com/web-services/articles/service-oriented_architecture_soa_definition.html	**Business Impact** Data sharing, performance and outcome measures, and program innovation are impeded by custom data format and content that may differ from system to system. Data is difficult to access so programs use less optimal short cuts to get the data they need for their programs, such as aggregating data from multiple sources. Data from such sources may be incompatible, degrading data integrity and requiring complex statistical analysis in order to derive any meaningful information.	**Business Impact** Data sharing, performance and outcome measures, and program innovation are improved because custom data format and content that differs from system to system are “translated” via common interfaces. Data is easily accessed and assembled into data sets on an “as needed” basis without using centralized data stores.
	Operational Impact	**Operational Impact**
	Technical Impact	**Technical Impact**
	Concrete Example For some services, Medicaid agencies require that providers submit clinical information in support of claims. Claims are pended until hard-copy clinical information is received and reviewed. Clinical staff determines whether the clinical information meets Medicaid clinical protocols and input their determination into their clinical review systems. They must also enter this information into the MMIS so that the claim reimbursement process can proceed. This may be a system-to-system interface that requires developing a custom interface. When there are multiple clinical review systems, each one must be connected to the MMIS claims processing subsystem in a different way.	**Concrete Example** For claims requiring clinical information review, the MMIS claims processing application can request clinical review determination information from appropriate clinical review system. For MMIS that support automated clinical review and that can interface with EHR-S, the claims process can request the required clinical information directly from the beneficiary’s EHR.

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
Service-Oriented Architecture (SOA) SOA is an information system that has been designed to use a Hub that provides the utility services needed to handle (receive, store, configure according to business rules, route) service requests from multiple service consumers and service responses from multiple service providers.  2629-06—130 See MITA Framework Vol. 2, p. 18. A software design strategy in which common functionality and capabilities (utility services) are packaged with standard, well defined “service interfaces” that can be used by new applications, legacy applications COTS software, (or all three) to invoke the functionality.	**Business Impact**	**Business Impact**
	Operational Impact	**Operational Impact**
	Technical Impact	**Technical Impact**
	Concrete Example MMIS are typically legacy systems that may have some integration with other legacy systems via custom point-to-point connections. Enhancing functionality to support new programs requires “patching in” a component. This may require making multiple modifications throughout the legacy systems. These continual “upgrades” may lead to unintended system conflicts and loss of functionality.	**Concrete Example** MMIS with SOA will be capable of enhancement because the systems are “loosely-coupled” with common ways to connect them (interfaces) and common infrastructure support (utility services) organized 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 (“plug and play”).

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
Electronic Health Record System (EHR-S) An EHR-S is a system that supports the "(1) longitudinal collection of electronic health information for and about persons, where health information is defined as information pertaining to the health of an individual or health care provided to an individual; (2) immediate electronic access to person- and population-level information by authorized, and only authorized, users; (3) provision of knowledge and decision-support that enhance the quality, safety, and efficiency of patient care; and (4) support of efficient processes for health care delivery."  IOM *Key Capabilities of an Electronic Health Record System* 2003	**Business Impact** States have limited ability to access or use clinical data. As a result, health outcome analysis is based on eligibility, claims, and 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. For health outcome and performance measures, States must rely on data derived from samples of paper medical records, which is very expensive. States cannot expeditiously gauge effectiveness of clinical protocols or determine health impacts of benefit design or coverage criteria changes.	**Business Impact** The Medicaid agency, providers, and beneficiaries have immediate access to clinical data (for which they are authorized). Authorized parties use clinical information to manage treatment plans, assess outcomes, and determine health care delivery strategies. Stakeholders focus on their primary functions of care-giving or monitoring.
	Operational Impact Staff reviews clinical justification for claims and service review requests manually. Staff audits authorizations retrospectively. Manual service reviews may impede beneficiaries' access to urgently needed care. Providers must delay clinical decisions and must conduct burdensome administrative tasks to receive coverage determinations. Public health does not have access to critical pre-diagnostic and diagnostic data for syndromic surveillance.	**Operational Impact** Provider and Medicaid operations are streamlined because clinical information is immediately available and many decisions can be automated.
	Technical Impact Most Medicaid systems lack capacity to use clinical data. Clinical review staff must key in clinical review determinations or custom interfaces must be developed to connect various clinical review systems with the MMIS claims processing subsystem.	**Technical Impact** Clinical data is readily available, accessible on request through the Hub.

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
	Concrete Example Medicaids must conduct health outcome studies and performance measures 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.	**Concrete Example** Medicaids will be able to electronically access the electronic health records of beneficiaries using automated processes that derive and aggregate clinical data in accordance with study parameters.
Case Management EHR		
Expert Systems DSS		
Business Process Orchestration  		
Customer Relationship Management Applications		

MITA Technology Description	As Is Business Functions Supported by Current Technology	To Be Business Functions Supported by MITA Technology
Meta Data http://www.udef.org/ http://service-architecture.com/web-services/articles/web_services_metadata_exchange_ws-metadataexchange.html http://msdn.microsoft.com/webservices/understanding/specs/default.aspx?pull=/library/en-us/dnglobspec/html/ws-metadataexchange.asp		

Other drivers influencing the world of Medicaid in the future are:

- Legislation mandating "No wrong door", New Freedom Initiative, etc.; presidential initiatives, e.g., President's Information Technology Advisory Committee (PITAC) – Key legislation and presidential initiatives are instruments of change.
- Increasing use of waiver programs puts pressure on the Medicaid agency to collaborate on benefit design, standardize data, and collaborate on processing.
- Revenue limitations for public agencies increase need to find administrative efficiencies, shift money to pay for benefits, and get better results for the money spent.
- Federal and national initiatives such as Consolidated Health Initiative (CHI), Federal Health Architecture (FHA), National Health Information Infrastructure (NHII), and Public Health Data Standards Consortium (PHDSC) – establish Frameworks for the architecture of the future.

Business Improvements (a.k.a., Categories, Rationales)

Introduction – Why These Examples?

Operational scenarios (case studies) are used to show the dynamics of the business operations from the users' point of view. The scenarios describe the what, where, when, why, and how. 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.

Selection of Examples of Business Improvements

To illustrate the progression from the current to the future State, we have selected a number of examples of business improvements. Some of these are processes that are already undergoing change today. They have been selected from among many examples of change because they help to illustrate the To-Be improvements and how the Medicaid enterprise will change over time.

The following Business Improvements are included in this section:

- Enable "No Wrong Door "– Applicants for benefits find easy access to appropriate, coordinated services
- Optimize health outcomes through sharing of clinical information
- 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-5 through **Table A-10** contain selected business cases to illustrate the transformations from the As-Is and To-Be dimensions.

Table A-5. Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services

Concept of Operations – Business Improvement Case Study #1	
Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services	
As Is	**To Be**
As Is Summary Currently, applicants for public services must go to many different offices, file multiple applications, and receive various benefits from programs and providers that have no formal means of communication. Services may overlap, treatment may be contra-indicated, time is wasted, opportunities for health improvements may be missed, and providers do not know what other services the patient is receiving. Payment is associated with programs, and therefore, beneficiaries "chase the programs". States cannot account for quality of health services or appropriateness of services across multiple programs. There is no composite view of a patient's medical history.	**To Be Summary** In the future, an individual or provider can access any public or community service agency through state Resource Centers in person, by telephone, or on-line; receive information on benefits available through various program; and initiate applications. The optimal benefit hierarchy is established for the client and redundancy of service is prevented. Linguistic, cultural, and geographic barriers are eliminated and disability challenges are accommodated. "Funding follows the beneficiary". *Facilitating the process of informing the public, collecting application data, and matching the applicant to the best mix of benefits improves access to care and outcomes, and reduces waste and inefficiencies. The beneficiary is better served, program dollars are better spent, and providers can focus on treatment.* *Staff involvement in the function of determining eligibility and matching the beneficiary to optimal benefits is reduced because the beneficiary can interact personally with automated prompts and questions. Rules engines match the patient with the right benefits. Applications are submitted on-line. Medicaid eligibility determination staff are freed to focus on exceptional cases, review performance measures and outcomes, and propose changes to enhance benefit plans and the "No wrong door" concept.*
Details of Current Business Environment **a. Beneficiary Access to Benefits** Beneficiaries are not sure where they need to go to get help. They may get "accepted" through the wrong door, or sent away because the program they approached isn't the "right door." Beneficiaries lack culturally and linguistically appropriate information about their rights, eligibility criteria, benefit plans, health and social service issues, provider and MCO choices. State has difficulty disseminating educational materials other than by paper.	**Details of Future Business Improvements** **a. Beneficiary Access to Benefits** Beneficiaries are able to "enter" any portal, be it a call or visit to a state or community service agency, a kiosk, any public agency, or a website and be "triaged" to programs and services that most appropriately addresses their needs. Applications for benefits are initiated at the first contact no matter what point of entry is used. Opportunities for educational, assistive, and preventive health services are optimized for all encounters. Policy, program, and benefit plan changes quickly incorporated into ongoing education programs.

Concept of Operations – Business Improvement Case Study #1	
Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services	
As Is	**To Be**
b. Information on Beneficiaries Stove-piped health and social service encounters result in missed educational, assistive, and preventive health care opportunities. For example, as part of an EPSDT visit, the caregiver could be offering parents sources of information about family planning or chronic disease management.	**b. Information on Beneficiaries** Beneficiary information is culturally and linguistically appropriate, accommodates functional challenges, and is available via diverse media and communication channels. All social service, community, and health programs can access information about program and benefit eligibility, as well as the services available to or received by any beneficiary that seeks their assistance. Health and social service agencies, providers, and community programs benefit because they share a common data set about beneficiaries' needs, health status, and services available or received.
c. Benefit Program Relationships Silo-ed programs may provide either more and overlapping services or fewer services depending on the program assortment for which the beneficiary is determined eligible. Where programs have overlapping benefits, the beneficiary may receive less than optimal benefits because program benefits cannot be mixed. A beneficiary may receive a set of benefits that are unknown to other programs that the beneficiary is eligible for, resulting in duplicative services and lack of care coordination.	**c. Benefit Program Relationship Improvements** Federal and state agencies will increasingly collaborate on program design, data standards, collection, analysis, and performance measures, as well as leveraging their funding prerogatives to support these initiatives. For example, continue and expand support for Aging and Disability Resource Centers and extend this "one-stop shopping" approach to all populations served by the Single State Medicaid Agency, Single State Agency on Aging, as well as other publicly funded health and social service programs.
d. Beneficiary Role Beneficiaries are treated as passive consumers of healthcare because there is no process for involving them in health education, self-determination, co-insurance, and defined contribution. Approaches for encouraging participation are not easily supported by IT or business processes.	**d. Beneficiary Role Changes** Beneficiaries have direct and on-demand access to program information, enrollment status, and their own health records. They have the ability to self-direct their own benefit plans, purchase appropriate services from providers of choice, communicate with their providers, oversee their EHR, and report on their health status, compliance with treatment, and the outcome of their care. The beneficiary is empowered to take active part in improving and maintaining health.
e. Program Funding Today, federal funding participation may not be maximized because the beneficiary's array of program options is either not known or not "blend-able". Beneficiaries' continuum of care is disrupted because the "money" does not follow the beneficiary. Beneficiaries receive "silo-ed" services that end without automatic transition to other appropriate and available programs.	**e. Program Funding Improvements** Programs can mix benefits and funding streams to optimize care coordination, access to benefits, and continuum of care for all beneficiaries. Adjustments can be made instantly to this "cafeteria style" plan and updates are immediately sent to all providers involved in the treatment.

Concept of Operations – Business Improvement Case Study #1	
Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services	
As Is	**To Be**
Current Constraints ***Legal and Statutory Constraints*** ■ Eligibility and funding for benefits are channeled through multiple other agencies in addition to Medicaid. Funding follows the program and not the beneficiary. ***Technology Constraints*** ■ Beneficiary access to program information is limited to visits to agencies, documents sent in the mail, and telephone calls. ■ Data regarding beneficiary eligibility and treatment history are stored in multiple locations. Interfaces are difficult and the data are often not comparable. It may not be possible to identify the individual beneficiary across multiple programs. ■ Clinical information is not readily available.	**Future Drivers** ***Legal and Statutory Drivers*** ■ Legislation and program policy changes create a consolidated approach to benefit package design and shared enrollment processes. ■ Legislation or policy changes create Resource Centers functioning as a single, coordinated system of information and access for all persons seeking assistance to minimize confusion, enhance individual choice, and support informed decision-making. ***Technology Enablers*** ■ Beneficiaries have access to their health information and interact with caregivers and case managers on-line. Customer Relationship Management (CRM) tools enhance beneficiaries experience with these access services. ■ Hub architecture supports beneficiary directories that point to the location of records of eligibility and service, available 24x7. Authorized users can access and extract the data needed about the beneficiary to improve quality of care, enhance case and disease management, improve administrative efficiency, and maximize federal funding through a consolidated approach to benefit package design and enrollment processes. ■ Hub architecture also supports sharing of multiple provider EHR data with Medicaid and other agencies and payers participating in the hub.

Concept of Operations – Business Improvement Case Study #1	
Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services	
As Is	**To Be**
Current Medicaid Operations Involved ***Member Management*** ■ Benefit Administration – The Medicaid agency evaluates and develops policy for Medicaid fee-for-service, managed care, SCHIP, Waiver program, carve-outs (e.g., managed mental health, pharmacy benefit management) based on data derived from disparate sources of eligibility history, claims, encounters and other sources. Agreements are made with other agencies that share beneficiaries. Decision-making is hampered by untimely, redundant, and inconsistent data. It is difficult to coordinate care among multiple agencies. ■ Eligibility Determination – Multiple sources determine eligibility for TANF, State Only, SCHIP, Waiver Programs, Dual Eligibles, QMB, SLMB, Medicare Drug, and spend-down; Medicaid agency receives this information and updates its files. ■ Enrollment – Different organizational units manage enrollment or placement of beneficiaries into special programs, e.g., managed care organizations, primary care physician network, Health Insurance Premium Payment (HIPP) program, SCHIP, waiver programs, catastrophic case management, lock-in, and others. ■ Beneficiary Services – A member services group responds to requests from beneficiaries for benefit information, provider location, and other communications; manages grievances and appeals.	**Future Operations** ***Member Management*** ■ Benefit Administration – Program evaluation is built-in and continuous. Dashboard indicators monitor all programs using real-time information updates. Data standards are enforced and all data are comparable. Outcome information is included in the analysis. State health agencies collaborate on benefit plans. *Operations are able to focus on improving health outcomes and quality of care rather than digging for data. Medicaid operations may co-chair benefit administration with other agencies.* ■ Eligibility Determination – Applicants inquire about benefits and apply at a variety of physical and on-line portals. Beneficiary needs are automatically mapped to available benefit programs. Beneficiary may be linked to multiple programs in which there is a hierarchy of appropriate services and redundancies are eliminated. Registry…… *Operations are able to focus on monitoring the beneficiaries as they navigate through the benefit programs for which they are eligible rather than processing and maintaining eligibility data*. ■ Enrollment – Information supplied by the applicant automatically notifies central enrollment operations of potential enrollment opportunities. *Enrollment operations are able to focus on monitoring and evaluating the choices made rather than processing enrollment transactions.* ■ Beneficiary Services – Information is available to the beneficiary on-line. Beneficiary support staff can focus on assessing health care outcomes and not on answering calls.
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 are aligned with Medicaid business processes and technologies.

Concept of Operations – Business Improvement Case Study #1	
Enable "No Wrong Door" — Applicants for Benefits Find East Access to Appropriate, Coordinated Services	
As Is	**To Be**
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-6. Optimize Health Outcomes Through Sharing of Clinical Information

Concept of Operations – Business Improvement Case Study #2	
Optimize Health Outcomes Through Sharing of Clinical Information	
As Is	**To Be**
As Is Summary Clinical information supporting a patient's treatment history and outcomes is 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 is derived from clinical data collected during encounters and redundantly reported to secondary users, diminishing data quality and accessibility.	**To Be Summary** Clinical information is immediately accessible to all authorized parties including the patient, from the point of service. The information is standardized and protected. It is immediately available for clinical decisions. There is a virtual complete record of every beneficiary, including all health plan records, clinical protocols, and business rules pertaining to service coverage. All relevant clinical, administrative, financial, and public health information can be generated from the point of care and shared 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; 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 Medicaid is notified of this plan. Business rules are applied and the provider is alerted re the status of the service. Medicaid Operations no longer performs routine prior authorization. Only exceptional cases need to be reviewed. Operations staff are able to focus on performance measures and outcome analysis.*

Concept of Operations – Business Improvement Case Study #2 Optimize Health Outcomes Through Sharing of Clinical Information	
As Is	**To Be**
Details of Current Business Environment **a. Storage and Access To Medical Records** Currently, medical records are stored in multiple provider locations. Much of the information in the multiple records is redundant, e.g., patient medical history, benefit coverage. Medical information is shared 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 standards and therefore the information is inconsistent. It 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. 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** In the future, medical information will be available to and shared by the health care community (providers and payers, beneficiaries, public health, and oversight entities) through a local health information business interchange. 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. Redundancy of data stored and inconsistencies are eliminated through subscription to the EHR. Same capabilities that support the Medicaid enterprise architecture to integrate all its program areas, align its business processes and support "No Wrong Door" with registries of beneficiaries is extended to enable business interchange with the health care community and beneficiaries. Real time interfacing with the EHR across the enterprise results in: ■ Instant, timely authorized access to clinical information using common terminologies and data standards ■ Shareable across all parties that need to know ■ Eliminates providers' reporting burden and increases data quality
b. Service Authorization Providers use paper and postal service, telephone, fax, and some EDI and Web services to submit request to perform services. Responses may be delayed and inconsistent. Process is time-consuming and labor intensive. Patients with legitimate needs may not be treated timely.	**b. Improved Service Authorization** Providers no longer "request". Entry of diagnosis and plan of care information into the EHR triggers a notification to the Medicaid agency. Clinical decision support rules assess the appropriateness of the service within the Medicaid benefit plan. The provider receives immediate notification of approval or denial.
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 conducted via handwritten notes that are hand carried by the patient to the secondary provider. Results of the referral may be mailed or communicated by telephone to the primary provider.	**c. Improved Referral Reporting** The primary provider diagnoses the patient and enters need for secondary service into the EHR. Notifications are established for other providers to access the referral information. The primary provider is notified that results of the referral service are available. Shared clinical information expedites the referral process and improves quality of outcome.

Concept of Operations – Business Improvement Case Study #2	
Optimize Health Outcomes Through Sharing of Clinical Information	
As Is	**To Be**
d. Claim Submittal Providers prepare and submit claims for services rendered via paper and postal service or EDI or Web services.	**d. "Virtual" Claim Reporting** When the provider enters service information into the EHR, Medicaid is notified that the event has occurred. CMS could also be notified, bypassing need for MSIS.
e. Encounter Reporting Health plans prepare and submit encounter reports for services 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.	**e. "Virtual" Encounter Reporting** When the provider enters service information into the EHR, the health plan is notified that the event has occurred. Simultaneously, Medicaid can also be notified.
f. Public Health Reporting Providers prepare and submit reports on notifiable conditions separately from claim preparation.	**f. Improved Public Health Reporting** Redundant reporting is eliminated. Public Health agency receives immediate notification. Information sent to Public Health 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** Redundant reporting is eliminated. Registries receive immediate notification. Information sent to registries is timely and consistent. Users of registries have access to timely and consistent information.

Concept of Operations – Business Improvement Case Study #2	
Optimize Health Outcomes Through Sharing of Clinical Information	
As Is	**To Be**
Current Constraints ***Legal and Statutory Constraints*** ***Technology Constraints*** ■ HIPAA requirement to implement claim attachment	**Future Drivers** ***Legal and Statutory Constraints*** **Technology Enablers** ■ Via an online or IVR 24X7 Beneficiary Registry, beneficiaries can access program portals and their personal EHR 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 standard-based application programming interfaces (e.g., CCOW). For example, support sessions with EHR-S for health outcome analysis, clinical record reviews, measuring payment accuracy, and audits. Using context and workflow management, support sharing or creation of administrative, public health, and financial data during clinical encounters.
Current Medicaid Operations Involved ***Member Management***	**Future Operations** ***Member Management***
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 are aligned 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.

Concept of Operations – Business Improvement Case Study #2	
Optimize Health Outcomes Through Sharing of Clinical Information	
As Is	**To Be**
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-7. Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)

Concept of Operations – Business Improvement Case Study #3	
Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)	
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 data standards provide immediate information and speed up the process of establishing the new or changed benefits. Agency can focus on performance measures, outcomes, and strategic planning. *Improved benefits reach the population sooner contributing to better outcomes and administrative efficiencies. Healthier population; 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. ■ New benefit packages are grafted onto legacy processes and inherit their inefficiencies. For example, managed care benefit rules are often grafted onto claims processing functions which do not support the full range of processes required for managed care administration. ■ Multiple plans cannot be combined to optimize services or funding. ■ Difficult to change policies because demographic data and health status outcome measures are not available to support changes	**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 rules based on automated, real-time performance and outcome metrics.
b. Administer Benefit Plans ■ States cannot administer benefits optimally ■ Benefit packages are stove-piped beneficiary care is not coordinated across multiple benefit plans	**b. Improve Benefit Plan Administration** Enable administration of complex program design rules to create beneficiary specific benefit packages based on eligibility for multiple plans, thereby optimizing services and federal funding participation.

Concept of Operations – Business Improvement Case Study #3 Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)	
As Is	**To Be**
c. Evaluate Benefit Plan Effectiveness States cannot assure that beneficiaries are receiving benefits to which they are entitled or are not receiving duplicate services. Limited ability to detect fraudulent use of benefits.	**c. Improve Benefit Plan Evaluation** Standard eligibility determination data as well as "built-in" data collection and analysis of determination process performance measures, 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 systems cause duplicates and erroneous beneficiary records that are problematic for public health and research uses. ■ Eligibility determination criteria and process are unnecessarily complex, labor intensive, and not timely. Determination requires interview at welfare office and paperwork. Often requires that eligibility rules for non-health programs be applied prior to those strictly related to health program eligibility. ■ Determination process lacks electronic, real-time access to beneficiaries' or their families' and caretakers' vital statistics, employment, workers' compensation, social security, tax, absentee parent, and 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 eligibility cannot be determined during encounter.	**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, tax, absentee parent, and tax records, and other sources of data required for automating and updating eligibility, COB, TPL, and HIPP information. Improves ability to detect applicant and beneficiary misrepresentation and fraudulent conduct to obtain coverage. ■ Automate Health Insurance Premium Payment (HIPP) determination by accessing subscriber health benefit information from state Insurance Departments. ■ Treat Spend-down as a deductible by deducting providers' claims for beneficiaries eligible after spend-down from the beneficiaries' accounts.
e. Communicate Benefit Plan Information to Providers and Beneficiaries ■ Some states mail paper Medicaid ID cards to beneficiaries every month. New beneficiaries must wait for ID card before they can get services or the provider must call to verify with staff because eligibility data is not yet loaded in the system.	**e. Improved Benefit Plan Communications** ■ Benefit information is available on-line on request to all authorized parties.

Concept of Operations – Business Improvement Case Study #3	
Expand Flexibility and Adaptability (Benefit Plan Maintenance Example)	
As Is	**To Be**
f. Report Benefit Plan Outcomes ■ Reporting to funders, legislators, and public health regarding benefit plan performance, trends, effectiveness, and projections is time consuming and labor-intensive, and is based on incomplete data. ■ Real outcomes and improvements cannot be reported based on current eligibility, claims, and encounter data. Special studies are performed to report on outcomes.	**f. Improvements in Benefit Plan Outcome Reporting** Rules-based benefit plans and access to EHR clinical information provide the Medicaid agency with immediate, consistent outcome information for decision-making.
Current Constraints ***Legal and Statutory Constraints*** ***Technology Constraints*** ■ Benefit plan structure is difficult to change. Rules may be hardcoded.	**Future Drivers** ***Legal and Statutory Constraints*** **Technology Enablers** ■ Rules engine ■ Data standards
Current Medicaid Operations Involved ***Member Management***	**Future Operations** ***Member Management***
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 are aligned 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-8. Safeguard Public Health Through Collaboration

Concept of Operations – Business Improvement Case Study #4	
Safeguard Public Health Through Collaboration	
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. Information collected at the point of service and stored in a medical record automatically notifies the payer, registry, alert system, and reporting systems that new service information is available. *Collaboration improves health outcomes, promotes public safety, and increases efficiency of operations.* *In the future, Operations staff will be freed from burden of chasing information and completing redundant reports. Instead, they can focus on assessing the information that is readily available 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 that may be loaded to NEDSS ■ MMIS is not part of the Health Alert Network System (HANS) so it is unable to respond expeditiously when outbreak information is first broadcast.	**Details of Future Business Improvements** ■ MMIS is integrated into 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 though 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 – MMIS interfaces with EHR during the encounter – MMIS detects relevant diagnostic data to upload to BioSense ■ PHINs rules about Diagnostic and Pre-Diagnostic Data entered into the EHR during the encounter trigger an MMIS alert to the provider that tests should be ordered or further clinical issues should be investigated ■ BioSense and NEDSS analysis update MMIS Clinical Decision Support with new PHINs rules

Concept of Operations – Business Improvement Case Study #4	
Safeguard Public Health Through Collaboration	
As Is	**To Be**
Current Constraints ***Legal and Statutory Constraints*** ■ Some statutes may impede data sharing arrangements. ***Technology Constraints*** ■ Technology is not in place	**Future Drivers** ***Legal and Statutory Constraints*** **Technology Enablers** ■ Hub architecture support collaboration with Public Health
Current Medicaid Operations Involved ***Member Management*** *External Data Sharing and Exchange* – Medicaid/Public Health Collaboration	**Future Operations** ***Member Management***
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 are aligned 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-9. Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care

Concept of Operations – Business Improvement Case Study #5	
Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care	
As Is	**To Be**
As Is Summary Currently, beneficiaries have limited ability to participate in the management of their treatment.	**To Be Summary** Beneficiaries are empowered to take responsibility for health status and outcomes. The can participate in treatment decisions. They interact in real-time with their providers and have immediate access to a composite, complete, virtual health record. Levels of compliance improve. This is a consumer-driven health care model. Greater provider and consumer satisfaction. *Improvement in health care status, prevention, and outcomes. A healthier population reduces the burden on the delivery system, care management, and associated costs.* *The role of the Medicaid Operations staff in current case management functions (Waiver programs, disease management) is reduced. Staff focus on monitoring progress of treatment and analyzing outcomes and patient satisfaction.*

Concept of Operations – Business Improvement Case Study #5	
Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care	
As Is	**To Be**
Details of Current Business Environment **a. Access to Benefits** In many communities, beneficiary services are supported by numerous funding streams, 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 supports and for those who can pay privately. These barriers lead to institutional, long-term support as the default outcome.	**Details of Future Business Improvements** **a. Improved Access to Benefits** Implement and maintain Resource Centers in every community to serve as highly visible and trusted places where people can turn for information on their full range of options and a single point of entry to public health and social service support programs and benefits. The Centers will be a resource for both public and private-pay individuals. They will serve all Medicaid eligibles, those eligible for state-funded and private programs, elderly persons, younger individuals with disabilities, family caregivers, as well as persons planning for future long-term support needs. Reaching people before they become Medicaid-eligible, and helping them to learn about low-cost options and programs such as private long term support insurance, can help individuals make better use of their own resources and help to prevent or delay spend-down to Medicaid. The Centers will also be a resource for health and long term support professionals and others who provide services to the Medicaid population, the elderly and to people with disabilities. This aligns with the President's Initiative for improving health care in the U.S. Empowering the consumer relieves the system that is stressed by resource shortage and soaring costs. http://www.cms.hhs.gov/newfreedom/resctrannappinst.pdf
b. Access to Health Information The beneficiary may now request 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 the individual's health record, on-line. Having the patient ensure that the individual's health record is correct is a way to protect personal health safety (analogous to the consumer checking credit reports – see NHII report) The beneficiary is incentivized to prevent illness and become engaged in managing health care. The patient can direct his/her own care; determine how to use resources; make their own choices.
c. Reporting Changes in Health Status	**c. Improvements in Reporting Status**
d. Receiving Information from Providers	**d. Improvements in Receiving Feedback and Results**

Concept of Operations – Business Improvement Case Study #5	
Improve Health Outcomes by Empowering Beneficiaries to Participate in the Management of Their Care	
As Is	**To Be**
Current Constraints ***Legal and Statutory Constraints*** ■ HIPAA Privacy Rule enforces patient access to health records ***Technology Constraints*** ■ Clients lack on-line access ■ Information is not readily available	**Future Drivers** ***Legal and Statutory Constraints*** **Technology Enablers** ■ EHR ■ Hub ■ Electronic Access (President's initiative – cable modem in every home)
Current Medicaid Operations Involved ***Member Management***	**Future Operations** ***Member Management***
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 are aligned 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-10. Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy

Concept of Operations – Business Improvement Case Study #6	
Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy	
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 U.S. MITA and state collaboration promotes a standardized taxonomy for all Medicaid providers across all states. States are better able to monitor provider performance, identify fraud, plan changes to benefit programs, budget for future needs, and clearly analyze outcomes. Less time is spent trying to find information and more time is spent on analyzing results and strategic planning. *Medicaid program administration is strengthened. Better planning results in improved functioning of the health care delivery system.* *The NPI facilitates speeds up, and improves the SURS and Fraud case development, reduces false positives, and assembles credible and actionable profiles. Strategic planning staff can compare a provider's fee-for-service practice and the same provider's managed care (capitated) practice to better determine the cost-effectiveness of managed care.*
Details of Current Business Environment NPI Taxonomy: Currently each agency in each state enumerates their providers using their own numbering scheme and definition of provider roles, leading to Multiple IDs for each provider, limited traceability and tracking, and barriers to sharing of data. 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	**Details of Future Business Improvements** Use of NPI standard in its native format (no conversion) plus a national Medicaid taxonomy developed by a NMEH workgroup results in: ■ Facilitating fraud detection within and across states ■ 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 state Medicaids

Concept of Operations – Business Improvement Case Study #6	
Improve Accountability Through Use of Unique Provider Identifier and Standardized Provider Taxonomy	
As Is	**To Be**
Current Constraints ***Legal and Statutory Constraints*** ■ HIPAA National Provider Identifier Rule will enforce use of a national identifier ***Technology Constraints*** ■ Systems will need to adopt NPI	**Future Drivers** ***Legal and Statutory Constraints*** ■ HIPAA will implement a national provider enumeration process ■ NMEH workgroup will concur on a national Medicaid provider taxonomy **Technology Enablers**
Current Medicaid Operations Involved ***Member Management***	**Future Operations** ***Member Management***
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 are aligned 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.

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