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## ***Part I — Business Architecture***

### ***Chapter 4 — Business Process Model***

#### **Introduction**

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This chapter presents the Medicaid IT Architecture (MITA) Business Process Model (BPM) and explains the role of the BPM in the MITA Framework. One of the MITA core concepts is that business needs and objectives inform and drive technical design.

This chapter answers the following questions:

- What is a business process model?
- What is the MITA Business Process Model?
- What is a MITA business process?
- How do business processes mature?
- What are the next steps in the evolution of the BPM?

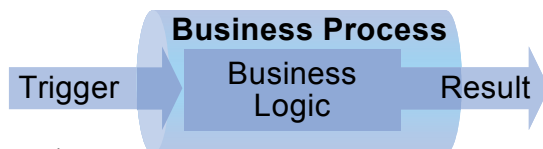
#### ***Purpose***

This chapter focuses on communicating the structure of and rationale for the MITA BPM and the role of the BPM in the MITA Framework. The BPM is one of the key building blocks within the Framework.

#### ***Scope***

The BPM is a work in progress. MITA Framework 2.0 delivers a baseline model and descriptions of 78 business processes. (See Part I Appendix C for the business process description sheets.) In MITA Framework 2.0, the emphasis is on defining business processes that most States support today. In the future, the model will expand to describe new business processes that come online as the business matures (e.g., at Maturity Level 3, where Medicaid agencies coordinate with other State and local agencies to create a “one-stop shop” beneficiary intake process). Many business processes that States engage in today are expected to disappear in the future (e.g., at Maturity Level 4, claims processing as we know it today will be replaced by message exchange directly between a provider’s electronic medical record or other source of clinical information and a payer’s reimbursement process).

The MITA business process definition provides a high-level description of a business activity (a series of steps), the trigger (data) that initiates it, shared data that the activity uses, and the result (data) of the process. In MITA Framework 2.0, the business process descriptions contain placeholders for future links to the Conceptual Data Model (Part II Chapter 3). Placeholders reference types of data needed to support the business process. The MITA initiative calls for collaboration between States and Centers for Medicare & Medicaid Services (CMS) to review



and improve the business process descriptions and develop the Conceptual Data Model. Consensus is important in order for the community to be able to use the BPM as a springboard for developing sharable business services in the future. (See Part III Chapter 4, Business Services.)

## What Is a Business Process Model?

A BPM describes what an organization or business does, including the events that initiate those processes (i.e., the trigger event). A BPM also describes the results of those processes. A process-oriented business model was chosen because it fits best in a framework that is designed to support over 51 Medicaid agencies, each with its own organizational structure, policies, and operational procedures. The MITA process-oriented approach views the business cross-functionally and organizes the actions of the business as a set of activities that respond to business events. Opportunities for real process improvement and dramatic business change are more likely to emerge from this perspective because it “dismantles” existing organizational silos. The BPM does not care how the business is organized, who does the work, or where the work is performed. Its focus is on the activity itself (i.e., what initiates the activity and what the activity produces). In this sense, the BPM offers a “one-size-fits-all” solution because it focuses on the core business process and not on how the activity is accomplished.

## What Is the MITA Business Process Model?

The MITA BPM is a model representing the operations of the Medicaid enterprise<sup>1</sup> as they exist in most States. It describes the Medicaid business processes found in a typical State and organizes them into various categories of common interest or focus (e.g., Provider Management, Member Management, and Operations Management). The role of the MITA BPM is to provide a common reference point for State Medicaid agencies. Agencies and their vendors can then map their processes to the BPM, which lets them describe their business processes in a standard way using a common vocabulary.

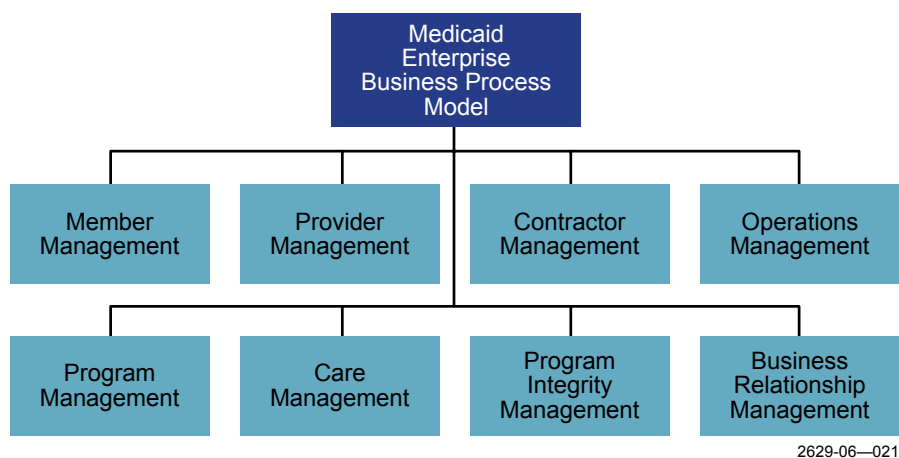
### Lineage of the MITA Business Process Model

The MITA team developed the MITA BPM using as primary sources the Medicaid HIPAA-Compliant Concept Model (MHCCM) and the State Systems Technical Advisory Group (S-TAG) MMIS Redesign Report. Models shown in these documents represent integrations of individual models from several States. The MITA team also collected responses from many States regarding their goals, objectives, and business needs for their Medicaid programs during the MMIS conference in Louisiana in 2003. The team followed up those responses with interviews with Medicaid personnel from individual States. The resulting MITA BPM contains processes common to most States. It is grounded in the present but remains flexible to accommodate the visions of the future as expressed by many States.

<sup>1</sup> For a discussion of “Enterprise”, see Part I Chapter 1.

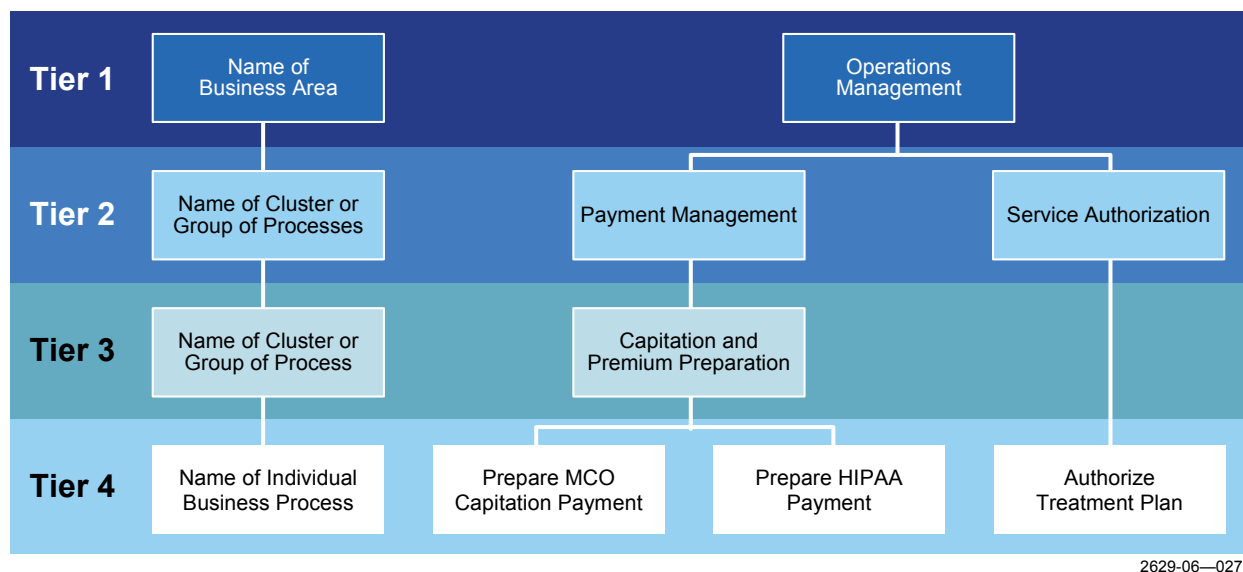
### The Business Process Hierarchy

The MITA business process hierarchy is a structure that groups together business processes that have a common purpose and that share data. Provider Management, for example, focuses on provider outreach, enrollment, and information maintenance (as distinct from payment or auditing) and “owns” a designated set of provider demographic data. Although the MITA BPM presents a way to organize business processes, States can organize their individual business processes differently (and, of course, assign them different names). Grouping business processes allows us to break them down until we reach the level of an actual business process in a business area. **Figure 4-1** shows the first level (Tier 1) of business areas in the MITA BPM.



**Figure 4-1. MITA Business Process Model Business Areas**

Figure 4-2 illustrates the tiers, hierarchy, and groupings used by the MITA BPM.



**Figure 4-2. MITA Business Process Model Hierarchy**

Figure 4-2 is a simplified version of the BPM. The lowest level business process appears in different tiers depending on the complexity of the business area. In less complex business areas, the business process appears at Tier 2 or 3.

The title of a business area or a lower tier grouping of business processes appears as a **noun** (e.g., Operations Management, Payment Management). The business process appears at the lowest tier and is shown as a **verb + object** (e.g., Prepare MCO Capitation Payment, Authorize Treatment Plan).

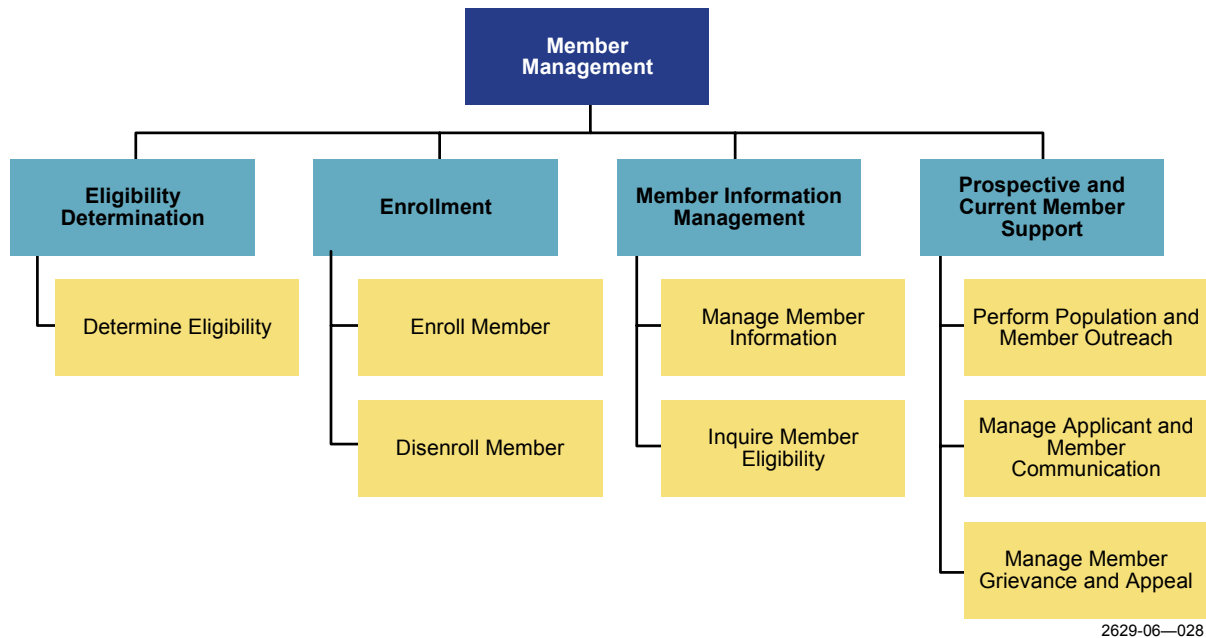
The content and purpose of each business area are discussed below.

### **Member Management Business Area**

The Member Management business area is a collection of business processes involved in communications between the Medicaid agency and the prospective or enrolled beneficiary and actions that the agency takes on behalf of the beneficiary. These processes share a common set of beneficiary-related data. The goal for this business area is to improve healthcare outcomes and raise the level of consumer satisfaction.

This business area is transformed in the future from agency staff performing eligibility and enrollment functions to more patient self-directed decision making.

Member Management business processes consolidate many eligibility and enrollment functions into a single, generic business process (see **Figure 4-3**). Determine Eligibility, for example, covers Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), State Children’s Health Insurance Program (SCHIP), and other programs. Enroll Member includes enrollment in managed care programs, carved-out benefit plans (e.g., pharmacy, dental, or mental health services), waiver service programs, and gatekeeper or lock-in programs.

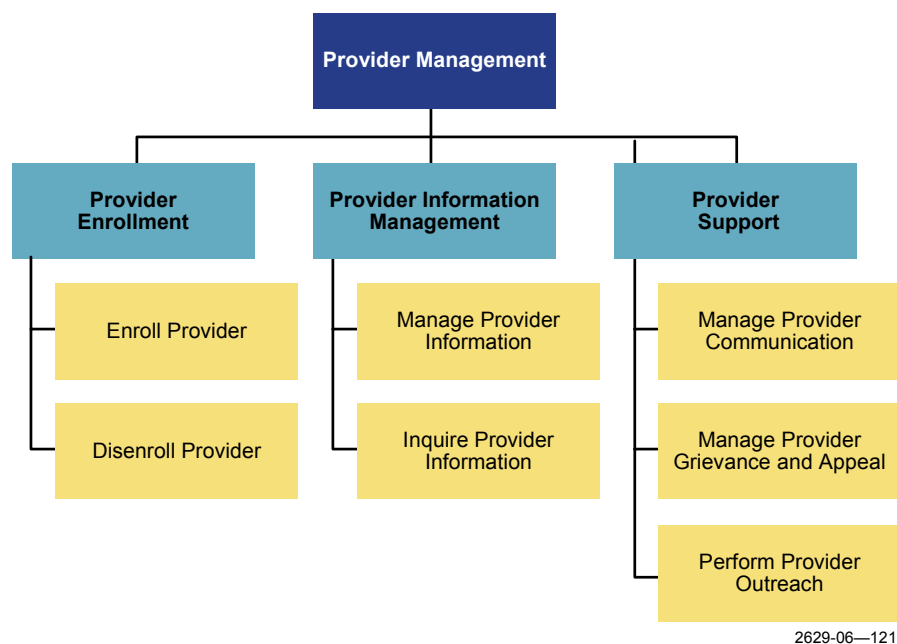


**Figure 4-3. Member Management Business Area**

### **Provider Management Business Area**

The Provider Management business area is a collection of business processes that focus on recruiting potential providers, supporting the needs of the population, maintaining information on the provider, and communicating with the provider community. The goal of this business area is to maintain a robust provider network that meets the needs of both beneficiaries and provider communities and allows the State Medicaid agency to monitor and reward provider performance and improve healthcare outcomes.

The Provider Management business processes represented in **Figure 4-4** cover many types of providers. In this case, Enroll Provider may subdivide into Enroll Institutional Provider, Professional Provider, Pharmacy, Durable Medical Equipment (DME), Atypical, and other types. These groups are types together in the BPM because they share a common set of activities, though the business rules and specific data associated with each provider type may differ.



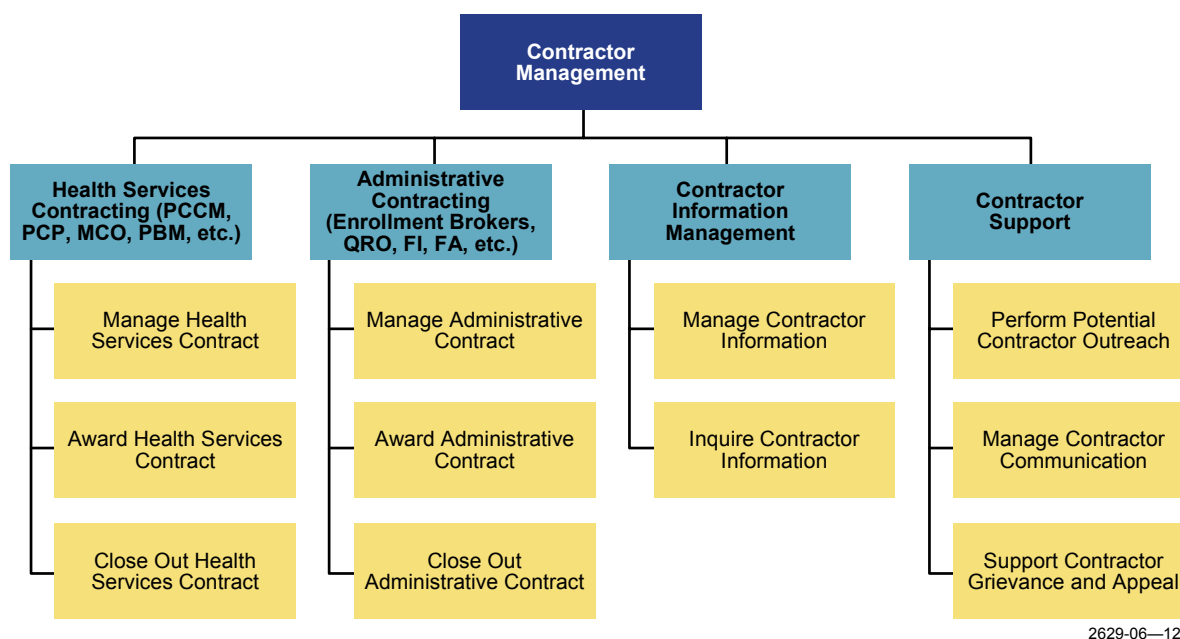
**Figure 4-4. Provider Management Business Area**

### **Contractor Management Business Area**

The Contractor Management business area accommodates States that have managed care contracts or a variety of outsourced contracts. Some States may, for example, group Provider and Contractor in one business area. The Contractor Management business area has a common focus (e.g., manage outsourced contracts), owns and uses a specific set of data (e.g., information about the contractor or the contract), and uses business processes that have a common purpose (e.g., solicitation, procurement, award, monitoring, management, and closeout of a variety of contract types).

Creating a separate business area for Contractor Management allows the MITA BPM to highlight this part of the Medicaid enterprise, which is becoming increasingly important to State Medicaid agencies. Indeed, it is the primary focus in some States that have comprehensive managed care or multiple-contractor operations.

In the Contractor Management business area, the many types of healthcare service delivery contracts (e.g., managed care, at-risk mental health or dental care, primary care physician) and the many types of administrative services (e.g., fiscal agent, enrollment broker, Surveillance and Utilization Review [SUR] staff, and third-party recovery) are treated as single business processes (see **Figure 4-5**) because the business process activities are the same, even though the input and output data and the business rules may differ.



**Figure 4-5. Contractor Management Business Area**

### **Operations Management Business Area**

The Operations Management business area is the focal point of most State Medicaid enterprises today. It includes operations that support the payment of providers, managed care organizations, other agencies, insurers, and Medicare premiums and support the receipt of payments from other insurers, providers, and member premiums.

This business area focuses on payments and receivables and “owns” all information associated with service payment and receivables. Most States have automated operations that support these payments. In fact, this is probably the part of Medicaid that is most representative of all State Medicaid programs.

Common business processes include validating requests for payment and determining payable amount; responding to premium payment schedules and determining payable amount; and identifying and pursuing recoveries (see **Figure 4-6**).

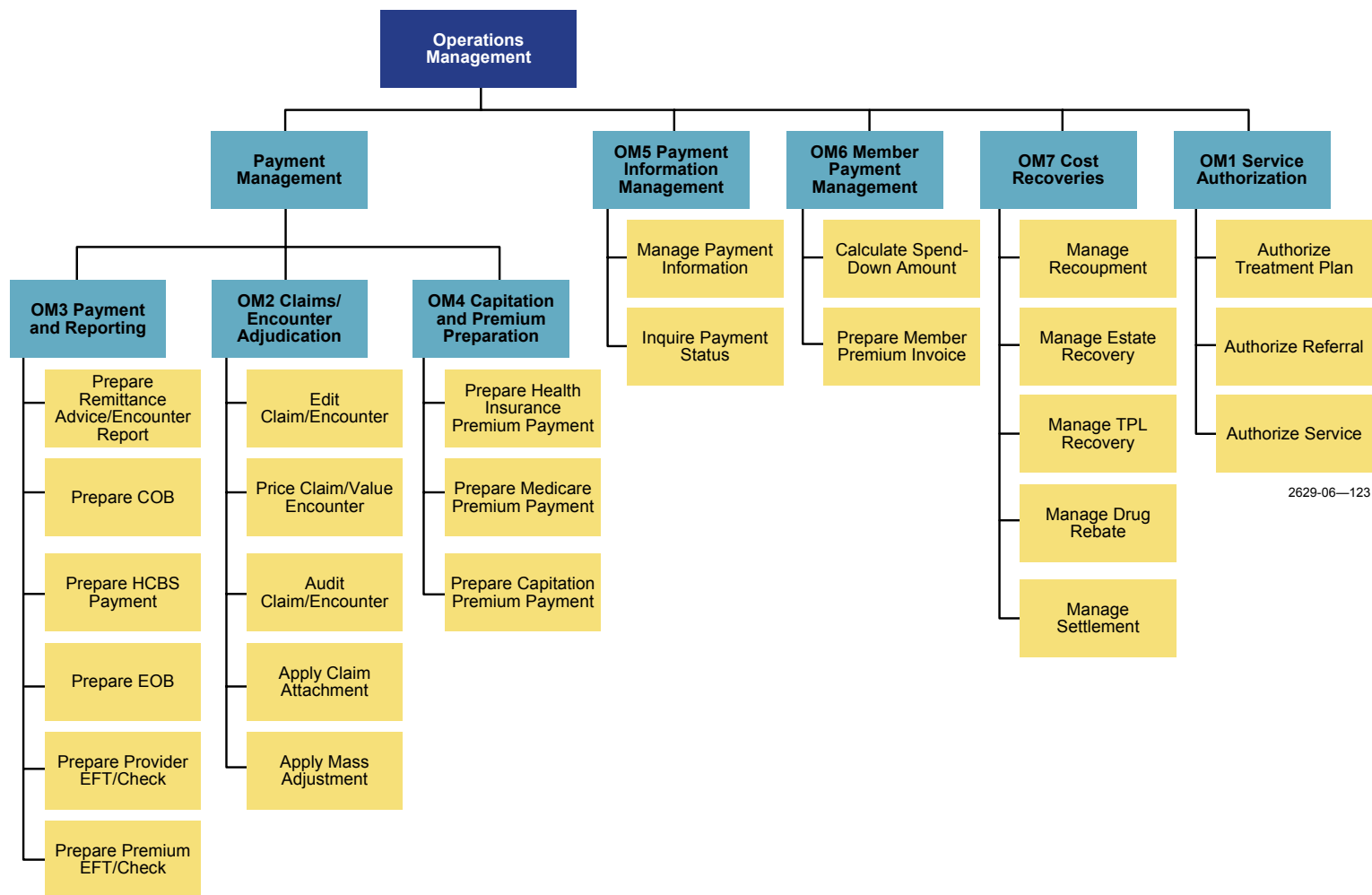
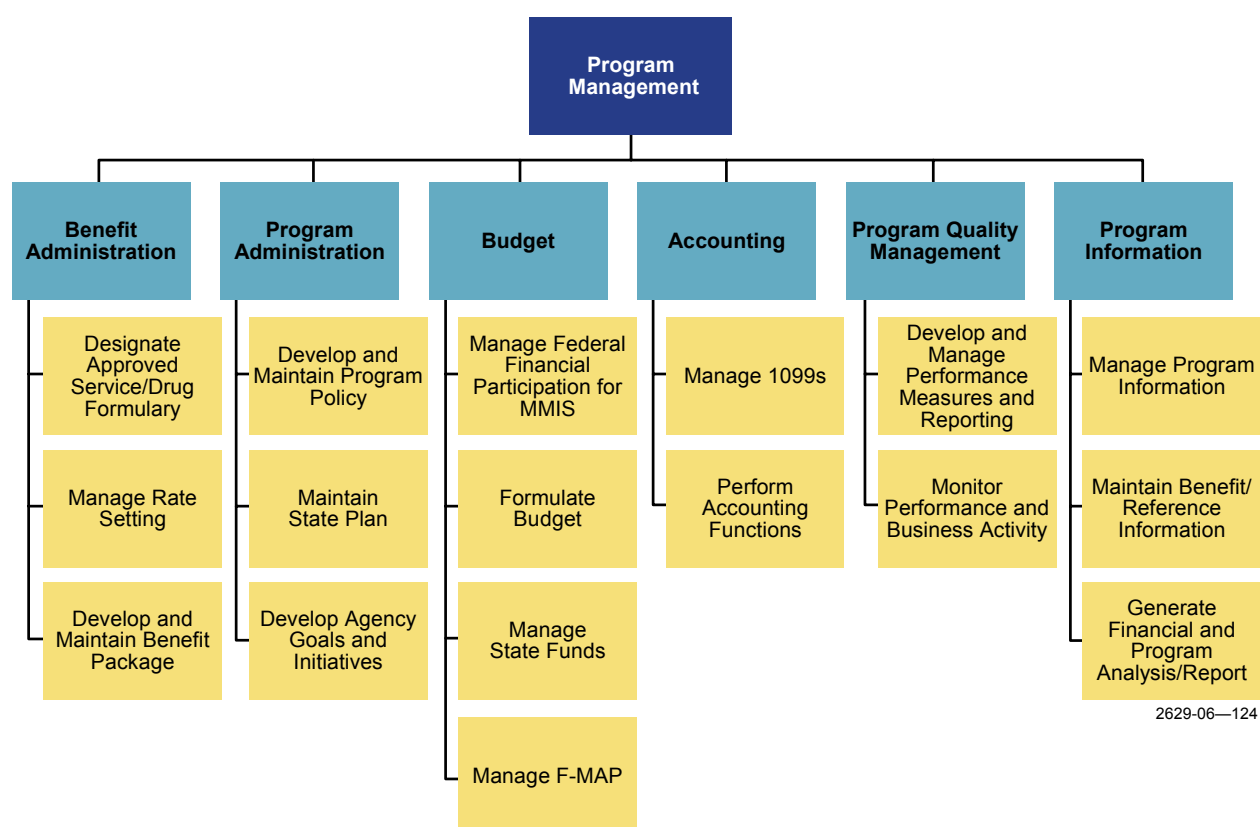


Figure 4-6. Operations Management Business Area



## Program Management Business Area

The Program Management business area houses the strategic planning, policy making, monitoring, and oversight activities of the agency. These activities depend heavily on access to timely and accurate data and the use of analytical tools. This business area uses a specific set of data (e.g., information about the benefit plans covered, services rendered, expenditures, performance outcomes, and goals and objectives) and contains business processes that have a common purpose (e.g., managing the Medicaid program to achieve the agency's goals and objectives such as by meeting budget objectives, improving customer satisfaction, and improving quality and health outcomes). (See **Figure 4-7**.)



**Figure 4-7. Program Management Business Area**

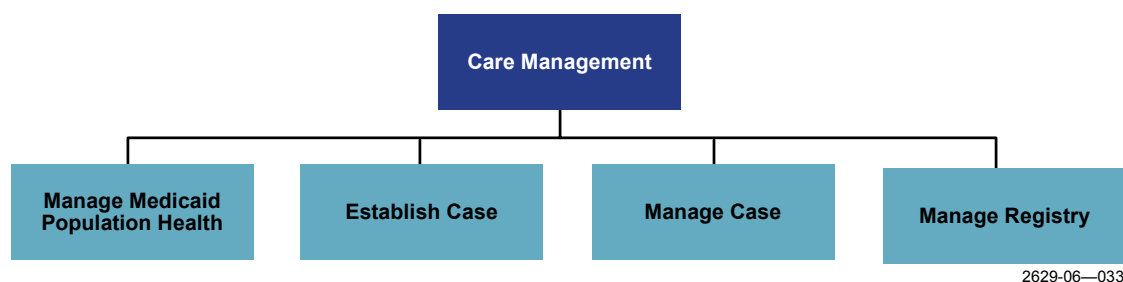
This business area includes a wide range of planning, analysis, and decision-making activities, including benefit plan design, rate setting, healthcare outcome targets, and cost-management decisions. It also contains budget analysis, accounting, quality assessment, performance analysis, outcome analysis, continuity of operations plan, and information management.

This is the heart of the Medicaid enterprise and the control center for all operations.

As the Medicaid enterprise matures, Program Management benefits from immediate access to information, addition of clinical records, use of standards, and interoperability with other programs. The Medicaid program is moving from a focus on daily operations (e.g., number of claims paid) to a strategic focus on how to meet the needs of the population within a prescribed budget.

### **Care Management Business Area**

The Care Management business area illustrates the growing importance of care management as the Medicaid program evolves. Care Management collects information about the needs of the individual member, plan of treatment, targeted outcomes, and the individual's health status. It also contains business processes that have a common purpose (e.g., identify clients with special needs, assess needs, develop treatment plan, monitor and manage the plan, and report outcomes). (See **Figure 4-8**.) This business area includes processes that support individual care management and population management. Population management targets groups of individuals with similar characteristics and needs and promotes health education and awareness.



**Figure 4-8. Care Management Business Area**

Care Management includes Disease Management; Catastrophic Case Management; Early and Periodic Screening, Diagnosis, and Treatment (EPSDT); Population Management; Patient Self-Directed Care Management; Immunization and other registries; Waiver Program Case Management; and programs yet to come. With individual patient and case manager access to clinical data and treatment history, Care Management continues to evolve and increase in importance in the Medicaid enterprise.

Members with special needs are the initial focus of Care Management. As the Medicaid enterprise evolves, all beneficiaries could have access to care management, including self-directed decision making.

### **Program Integrity Management Business Area**

The Program Integrity business area incorporates those business activities that focus on program compliance (e.g., auditing and tracking medical necessity and appropriateness of care and quality of care, fraud and abuse, erroneous payments, and administrative abuses).

Program Integrity collects information about an individual provider or member (e.g., demographics; information about the case itself such as case manager ID, dates, actions, and

status; and information about parties associated with the case). (See **Figure 4-9**.) The business processes in this business area have a common purpose (e.g., to identify case, gather information, verify information, develop case, report on findings, make referrals, and resolve case). As with the previous business areas, a single business process may cover several types of cases. The input, output, shared data, and the business rules may differ by type of case, but the business process activities remain the same.



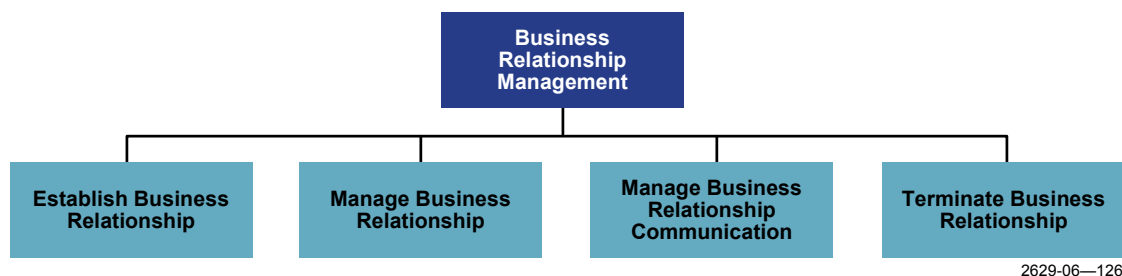
**Figure 4-9. Program Integrity Management Business Area**

This business area will mature with access to clinical data that improve the capability for identifying real cases of program abuse. Today this business area concentrates on SUR activities, fraud detection, and other types of program safeguards. Although Program Integrity activities continue to have a place as core business processes mature, their focus is predicted to shift from retrospective analysis to prospective and concurrent application of business rules.

### **Business Relationship Management**

The Business Relationship Management business area is currently represented in many States as a component of Program Management. It is shown here as a separate business area because collaboration between in-State agencies and inter-State and Federal agencies is increasing in importance.

This business area owns the standards for interoperability between the agency and its partners. It contains business processes that have a common purpose (e.g., establish the interagency service agreement, identify the types of information to be exchanged, identify security and privacy requirements, define communication protocol, and oversee the transfer of information.) (See **Figure 4-10**.)



**Figure 4-10. Business Relationship Management Business Area**

Today, data exchange and intra-agency service agreements are commonplace. Technology, including security, allows States to communicate, share data, and receive information from in-State sister agencies and from other States' or Federal data-sharing partners.

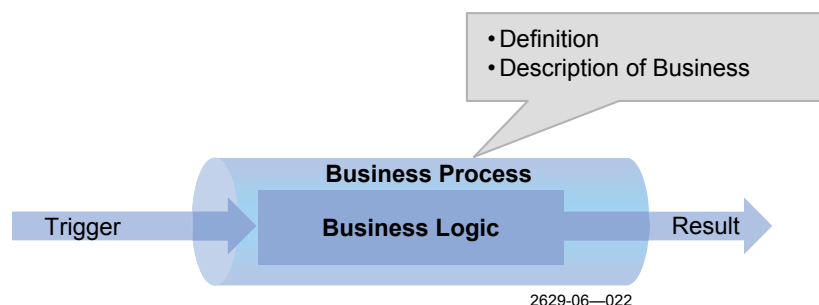
Currently, data exchange between State Medicaid agencies and other agencies and States is primarily a manual exercise. Requests are made and responded to in an ad hoc manner.

In the future, data may be exchanged more on a national scale based on agreements between State and local entities. Business processes define who can share information and what information is exposed.

## What Is a MITA Business Process?

The MITA business process is the lowest element shown in the BPM. Levels above are clusters or groupings of processes. The final business process is defined as a series of activities that are triggered by one or more events and result in one or more results. All of the business processes contained in the MITA BPM are described in a standard template that captures the Trigger<sup>2</sup>, Result, and Business Logic. The Trigger is the initiating event. It is defined in terms of data or a time/schedule. The Result is the output of the process. It is described as data produced by the business process. Business Logic is defined by the individual steps/activities. **Figure 4-11** illustrates the components of the business process.

<sup>2</sup> Synonyms used in this chapter include: Trigger or Trigger event; Result or Outcome; Business Logic or Steps or Activities; Shared Data or Data at Rest.



**Figure 4-11. MITA Business Process Description**

An example of a business process is Enroll Provider. The Trigger is the receipt of enrollment application data. The Result is a status of “enrolled,” “denied,” or “suspended.” The Business Logic includes validation of key data, validation of credentials, verification or assignment of ID, and association of rates, fees, and contract terms. An example of measurement is the time between the Trigger and the Result. Shared data includes the State’s provider registry, external registries, the National Provider Identifier (NPI) database, license/credential boards, and national lists of “defrocked” providers.

A Trigger event activates a business process, carries out one or more steps, and produces one or more results or outcomes. For example, the business process Enroll Provider contains the following elements:

- One or more Triggers (e.g., receiving a provider enrollment application)
- A series of steps (e.g., login provider enrollment application, authenticate sender, or validate credentials)
- One or more Results (e.g., authorize or deny enrollment, request more information, and notify provider of result)

The MITA BPM is augmented by the following:

- A definition of the business process that describes the overall objective and purpose
- A definition of a performance measure, which lets all stakeholders measure the same things in the same way (i.e., what is measured to verify that the business process is meeting the capabilities ascribed to it)
- A definition of the data used to trigger the business process and the data contained in the Result — this is called *data in motion* because (1) it is received from an external source (e.g., a provider submits a claim) or (2) it is passed from one process to another
- A definition of the data used by the Business Logic — this is called *data at rest* or *shared data* because the data is utilized or read, but not moved, changed, or updated
- A definition of failure points where a business process may stop before completion

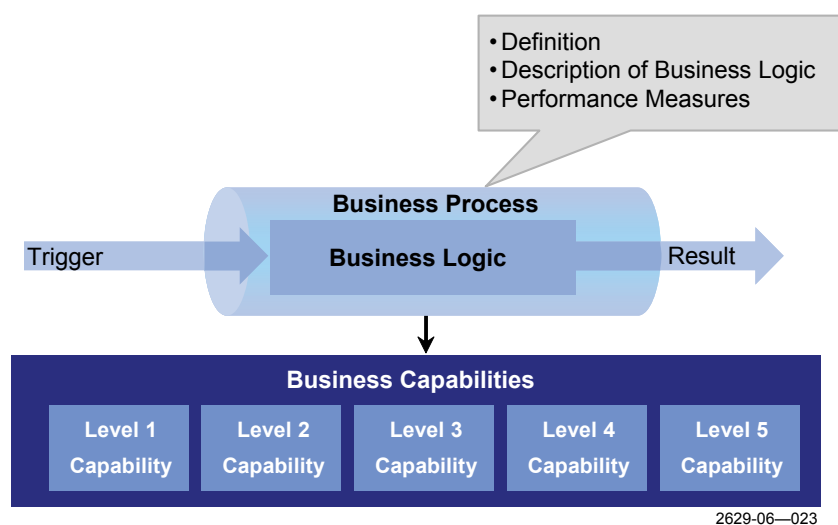
In the BPM, the business processes represent the typical operations of a Medicaid agency. These processes evolve over time. Some are transformed and others are replaced. New business processes will appear. **Table 4-1** illustrates the template used to describe all MITA business processes. Part I Appendix C, Business Process Model Details, contains the complete set of business processes.

**Table 4-1. MITA Business Process Template**

Tier 3: Enroll Provider		
Item	Details	Links
<b>Description</b>	A brief description of the complete business process	<i>Location in the Model</i>
<b>Trigger Event</b>	An occurrence that triggers a business process (e.g., receipt of a request, phone call, or a scheduled date) The Trigger is a defined data set.	<i>Sources of Trigger events</i>
<b>Result</b>	One or more outcomes from the execution of the Business Logic (results are defined as <i>data in motion</i> and are the immediate output from the business process, not the ultimate, downstream result) The Result is a defined data set.	<i>Business processes affected by the Result</i>
<b>Business Process Steps</b>	A sequence of steps that execute the successful completion of the business process (steps start with a verb)	N/A
<b>Shared Data</b>	Shared data is <i>data at rest</i> (i.e., data stores accessed to complete a step in the business process) Shared data is a defined data set.	<i>List of data sources</i>
<b>Predecessor</b>	The preceding business process, the Result of which becomes an input Trigger to this business process	<i>Other BP</i>
<b>Successor</b>	The Results of this business process, which may become a Trigger for another business process	<i>Other BP</i>
<b>Constraints</b>	Conditions that must be met for this generalized process to execute (e.g., enrolling institutional providers requires different information from enrolling pharmacies)	<i>External rules</i>
<b>Failures</b>	An identification of the exit points throughout the business process where the Business Logic specifies that the process must terminate because of failure of one or more steps	<i>Failure Notifications</i>
<b>Performance Measures</b>	Measures that describe what can be measured but that are not specific measures in themselves, such as the following: 1. Time to complete process (e.g. real-time response = within ___ seconds; batch response = within ___ days) 2. Accuracy of decisions = ___% 3. Consistency of decisions and disposition = ___% 4. Error rate = ___% or less The MITA template specifies the type of measure but not the actual measure.	<i>External source or performance measure rules</i>

## How Do Business Processes Mature?

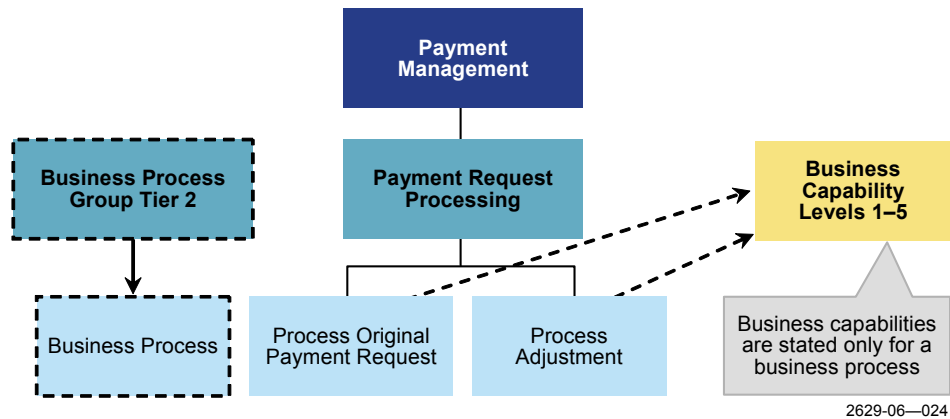
Business processes described in the BPM are those found today in most Medicaid enterprises. However, the MITA Framework also needs to show how typical processes can be transformed over time. The Business Capability Matrix described in the next chapter is the vehicle chosen by the MITA team to show this transformation. The next chapter presents the five levels of progressively maturing capabilities associated with each business process. **Figure 4-12** illustrates the relationship between the business process and the different levels of capability. (See Part I Chapter 5, Business Capability Matrix, for more information on business capabilities and Part I Appendix D, Business Capability Matrix Details, for a full list of capabilities associated with business processes.)



**Figure 4-12. Business Processes and Business Capabilities**

As an example, assume that Authorize Service is a business process that approves or denies payment for a service based on evidence about the person's health status, medical needs, or other factors. The Trigger event is Receipt of Service Authorization Request. The Result is Authorization Status (e.g., denied, approved, or suspended for more information). The steps include authentication of requestor; validity of service; eligibility of client; appropriateness of service for client's medical condition, age, or gender; service or dollar limits; availability of funds; and final disposition.

Business processes can have from one to five Maturity Levels of business capabilities, as reflected in **Figure 4-13**. Maturity Level 1 reflects the current capabilities commonly seen today in many Medicaid operations. The other levels show advances in the timeliness, effectiveness, and efficiency of the business process.



**Figure 4-13. Business Processes**

The MITA BPM continues to evolve and change as new processes are identified and added. A new process may be created as a result of a change in the industry, such as adoption of electronic health records (EHRs) or Regional Health Information Organizations (RHIOs). These innovations change the way the Medicaid enterprise does business. (For example, direct access to clinical data can change the way Service Authorization and Claims Adjudication are performed today). The new business processes replace or make an existing process obsolete. For example, online coordination of benefits eliminates the need for cost recovery (i.e., Pay and Chase).

Each new business process has an initial capability. The level of the capability indicates when the process is available. Both the old and the new processes remain in the BPM because some States may have implemented the new process, while other States continue to use the older process.

## What Are the Next Steps in the Evolution of the BPM?

The MITA BPM is designed to identify all the major Medicaid business processes commonly found in most States. Processes that support optional programs (e.g., managed care, Waiver, Immunization Registry, Care Management, or Medicaid-based SCHIP) are included because of the many States that have implemented these programs. MITA Framework 2.0 establishes a Model — a baseline for a common set of Medicaid business processes. It is important to have this “starter kit” validated by the community of Medicaid agencies and stakeholders, which States, National Medicaid Electronic Data Interchange (EDI) HIPAA (NMEH) workgroup, S-TAG, and the MITA team can accomplish through collaborative efforts.

The definition of the business process allows all Medicaid agencies to identify their business processes within the MITA BPM. The business process capabilities, described in the next chapter, allow States and vendors to assess their current systems and plan for enhancements, upgrades, or replacement systems.