

Prepared for the
Administration for Children and Families (ACF)

National Human Services Interoperability Architecture
Business Viewpoint Description
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Prepared by:
The Johns Hopkins University
Applied Physics Laboratory (JHU/APL)



Draft Issue

It is important to note that this is a draft document. The document is incomplete and may contain sections that have not been completely reviewed internally. The material presented herein will undergo several iterations of review and comment before a baseline version is published.

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Review and comments to this document are welcome. To comment, either post your feedback in the [NHSIA Drafts Comments](#) library or send comments to NHSIAArchitectureTeam@jhuapl.edu.

Ms. Christine O. Salamacha
The Johns Hopkins University Applied Physics Laboratory
11100 Johns Hopkins Road
Laurel, MD 20723
Phone: 240-228-6000
E-Mail: christine.salamacha@jhuapl.edu

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1 Introduction

1.1 NHSIA Overview and Objectives

The National Human Services Interoperability Architecture is being developed for the Administration for Children and Families (ACF) as a framework to support common eligibility determination and information sharing across programs and agencies, improved delivery of services, prevention of fraud, and better outcomes for children and families. It consists of business, information, and technology models to guide programs and states in improving human service administration and delivery through improved interoperability of business processes and information technology (IT).

The primary goal of the NHSIA Project is to develop a national architecture to enable information exchange and sharing IT services across currently siloed federal, state, local, and private human service information systems. It is envisioned that the ultimate outcome for stakeholders following NHSIA guidance will be:

- Interoperability of IT elements and associated business processes
- Improved care provided to clients by holistically addressing their needs – e.g., “no wrong door”
- Comprehensive, integrated support for client-oriented case workers at point of service
- Incremental insertion of new services and technology
- More flexible, adaptive systems
- Reduced cost of operation and maintenance for all levels of government and the private sector through sharing and reuse of services, data, and IT resources
- Reduced fraud through automated and coordinated enrollment, verification and eligibility determination
- Greater availability of timely program data for evaluating program performance
- Better connections between human services and health and education services, and able to leverage advances made in those areas

1.2 Architecture Framework and Viewpoints

An **architecture** is a description of the components, structure, and unifying characteristics of a system. An enterprise architecture is a rigorous, comprehensive description of an enterprise, including mission and goals; organizational structures, functions, and processes; and information technology including software, hardware, networks, and external interfaces. NHSIA can be thought of as a multi-enterprise, or **community architecture**.

An **architectural framework** is a structure for describing an architecture. The NHSIA project has adapted the frameworks defined by the Federal Enterprise Architecture (FEA)¹ and the DoD Architectural Framework (DoDAF)², and has incorporated applicable features of the Medicaid IT Architecture (MITA) Framework³. DODAF has evolved over a decade to include multiple viewpoints. NHSIA has adapted DODAF to include the viewpoints shown in Figure 1-1. The adaptations include merging the DODAF Systems and Services viewpoints into a single Systems Viewpoint and pulling out an Infrastructure Viewpoint as a separate item from the systems viewpoint.

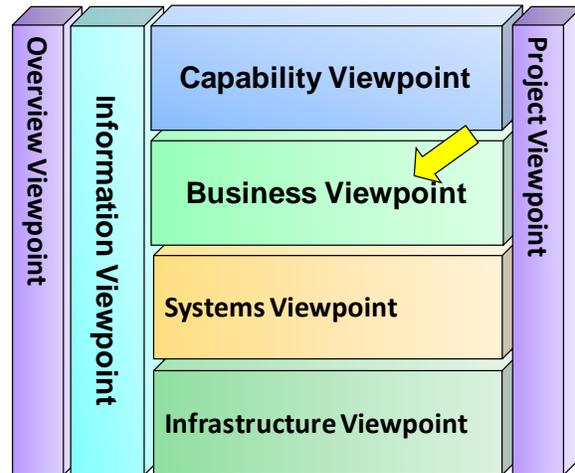


Figure 1-1. Architecture Viewpoints

1.3 Architecture Documentation

NHSIA is documented by a viewpoint description for each viewpoint. Each of these viewpoint descriptions is supported by more detailed documents including white papers, spreadsheets, diagrams, presentations, and products of specialized architectural tools. The viewpoint descriptions and associated products are referred to as architectural artifacts. This viewpoint description document addresses the Business Viewpoint.

¹ <http://www.whitehouse.gov/omb/e-gov/fea/>

² DoD Architecture Framework, version 2.0, Volume 1: Introduction, Overview and Concepts, Manager's Guide, 28 May 2009.

³ <https://www.cms.gov/MedicaidInfoTechArch/>

2 NHSIA Business Viewpoint

The Business Viewpoint provides a high-level, yet specific description of the processes that characterize human services operations. A typical process description includes stakeholders involved, activities and actions, information flow and interactions between processes.

One audience for this viewpoint is the developers of the other NHSIA Viewpoints. This viewpoint defines the activities and inputs /outputs that motivate the services identified in the Systems Viewpoints and the information exchanges identified in the Information Viewpoint. The NHSIA business model captures the basic functionality of human services operations and suggests how processes could be adapted to leverage NHSIA capabilities.

A second audience for the Business Viewpoint is those who are charged with developing strategies and plans for state, local, and private provider architectures and systems. The Business Viewpoint provides a framework for identifying common activities that transcend agency, program, jurisdiction, and level of government. Understanding how activities are common is the first step towards identifying opportunities for information sharing and re-use of services and applications.

2.1 Business Viewpoint Description

The NHSIA Business Viewpoint provides a functional, technology-independent model of the human services “business”. The Business Viewpoint provides a characterization of business operations that applies across programs and agencies. This viewpoint highlights common processes and opportunities for information sharing and re-use. The NHSIA Business Model, comprised of 10 business areas, was largely developed by adapting and tailoring the MITA 3.0 Business Model to human services. The ten NHSIA business areas are: Client Management, Eligibility and Enrollment, Provider Management, Service Management, Performance Management, Contractor Management, Finances Management, Operations Management, Program Management and Business Relationships. The NHSIA model also includes processes specified in the behavioral health extension to MITA (BH-MITA) developed by the Substance Abuse and Mental Health Administration (SAMHSA). About 110 processes comprise the NHSIA Business Model.

2.2 Business Viewpoint Artifacts

Business Viewpoint artifacts include:

- Business Area Descriptions: Business areas are defined in terms of business processes. Each business area represents a focus area. Business areas

correspond to either a major function (e.g., Finance) or stakeholder group (e.g., Client). NHSIA business areas and business processes are described in Section 3.2.

This artifact is used to communicate the NHSIA business model structure; it shows how NHSIA is aligned with MITA.

The hierarchy adopted for the NHSIA business model is depicted in Figure 2-1.

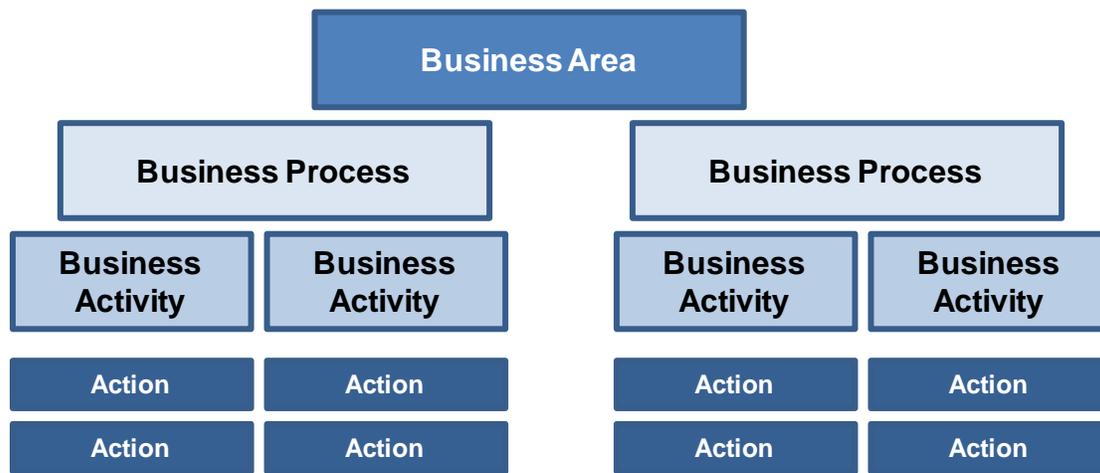


Figure 2-1. NHSIA Business Model Hierarchy

- Business Process (BP) Descriptions: Each business process is described in terms of business activities. Relevant actions are specified for each business activity. Action terms, stakeholders, and information inputs and outputs used to define business activities are provided in process spreadsheets. These products provides a more an in-depth description of the business model.
- Business Processes Mapped to Human Service Domains: Mappings identify the human service domains to which each process applies. In this document, the NHSIA Business Model addresses the following human services domains:
 - Financial Assistance (e.g., Temporary Assistance to Needy Families [TANF])
 - Adoption/ Foster Care
 - Child Care
 - Child Support Enforcement
 - Child Protection
 - Housing Energy Assistance (e.g., Low Income Home Energy Assistance Program [LIHEAP])

- Food / Nutrition (e.g., Supplemental Nutrition Assistance Program [SNAP])

Mappings for Client Management, Eligibility and Enrollment, Provider Management, Service Management, and Performance Management are provided in Section 3.2. Mappings for the remaining business areas are provided in Appendix C.

These products are used to explain NHSIA to different human services stakeholder communities. The NHSIA business model is comprised of processes understood to be common across human services domains and highlights opportunities for information sharing and re-use of components across domains.

- Business Process Stakeholders: The stakeholders involved in each process are specified at the business activity level. Terms used to define stakeholders are provided in Appendix B. The business process spreadsheets identify potential stakeholders for each business activity. This may indicate who is involved in processes and must be accounted for by access and confidentiality services.
- Business Process Relationships: The process spreadsheets include relationships between processes. The relationships considered here are those between processes, where one process invokes another. These are used to identify potential information interfaces between processes. These interdependencies between processes are considered in the Process Management performance area of the NHSIA Performance Reference Model.
- Scenarios and Vignettes: Scenarios are real-world situations that serve to illustrate how the NHSIA architecture would enable human services operations; scenario vignettes are operational threads that can span several business processes.

This artifact is used in examining NHSIA objectives and benefits, communicating NHSIA concepts to stakeholders, and explaining the architecture viewpoints.

2.3 NHSIA Scope

Figure 2-2 provides a summary of NHSIA scope. The stakeholders, actions, and information depicted in Figure 2-2 are reflected in the NHSIA Business Model.



<p>Technologies & Standards:</p> <ul style="list-style-type: none"> • Architecture patterns • Best practice • Business intelligence • Business rules and rules engine • Cloud computing • Customer relationship management • Data standard (e.g., HL7, NIEM) • Decision support • Design pattern • Fixed & mobile communications • Internet and Web • Networks • Security • Service-oriented Architecture (SOA) • Workflow • XML 			<p>Access points:</p> <ul style="list-style-type: none"> • At home • At work • In call centers • In clinical settings • In field/mobile systems • In office-based service-related systems • In schools 			<p>Structures:</p> <ul style="list-style-type: none"> • Agency Person Record • Case Person Record • Case Record • Confidentiality and Privacy Authorization • Electronic Case File Case Record • Electronic Health Record (EHR) • Health Information Exchange (HIE) • Master Person Index (MPI) • Medicaid Information Technology Architecture (MITA)-derived structures • Personal Health Record (PHR) • Service Provider Registry • Shared Person Record 					
<p>Information about:</p> <ul style="list-style-type: none"> • Account, payment • Association • Benefit • Business (provider, contractor, etc.) • Case • Credential • Document • Facility • Finances • Group • Job • Legal action • Metrics • Organization 			<p>Outcome:</p> <ul style="list-style-type: none"> • Outcome • Person • Placement • Population • Program • Resource capacity • Rule, policy, regulation, law • Service • Status • System • Workflow 			<p>Actions:</p> <ul style="list-style-type: none"> • Apply for • Approve • Archive • Authorize • Bill • Collaborate • Delete • Determine/screen • Develop • Educate • Freeze • Identify and select • Initiate • Interview • Manage • Monitor/assess/detect 			<ul style="list-style-type: none"> • Notify/communicate • Pay • Plan • Record • Refer • Register • Report • Request • Research/analyze • Respond • Retrieve • Review • Schedule/coordinate • Share • Trigger • Verify 		
<p>People:</p> <ul style="list-style-type: none"> • Assistor • Auditor • Case worker • Client • Community partner • Legal staff • Program/agency staff • Researcher • Service contractor • Service provider • The Public 			<p>Organizations:</p> <ul style="list-style-type: none"> • Community-based agency • Court • Educational institution • Financial institution • Government agency • Health institution • Insurance company • Legislative, regulatory body • National association • Other private company • Research institution 			<p>Systems for:</p> <ul style="list-style-type: none"> • Adoption/foster care • Child care • Child protection • Child support • Disability • Domestic violence • Education • Employability • Financial assistance • Food/nutrition • Health • Housing & energy assistance • Parenting/family planning • Public health • Substance abuse & mental health 					

Figure 2-2. NHSIA Context and Scope

2.3.1 Service Domains and Populations Types

The human services enterprise consists of a collection of dozens of programs. The Federal Government administers on the order of 60 programs. Not all states and counties participate in all of these, but there are additional programs at the state and county level. NHSIA is meant to be program-agnostic. In other words, NHSIA is intended to provide a generic framework that can be applied to all human service programs. These programs can be grouped based on the type of service they provide into these service domains (descriptions provided for programs considered in this document):

- Adoption/foster care: DHHS initiatives in adoption and foster care include Child Welfare Information Gateway and the National Foster Care and Adoption Directory. State and local agencies administer services related to foster care; government and private entities provide adoption services.
- Child care: DHHS initiatives in child care include ChildCareAware. State, local and private entities provide services related to the temporary (daily) care of children.
- Child protection: DHHS initiatives in child welfare (abuse and neglect) include the Child Welfare Information Gateway, ChildHelpUSA, and the Good-Touch/Bad-Touch educational program. State, local and community entities provide services for children (and their families) who are victims of abuse or neglect.
- Child support: DHHS initiatives in child support include the Office of Child Support and Enforcement, the Federal Parent Locator Service (FPLS), and the Office of Child Support and Enforcement. These services help to secure payment from parents for support of children (as mandated by court rulings).
- Disability
- Domestic violence
- Education (life-time scope)
- Employability
- Financial assistance: DHHS initiatives in financial assistance include Temporary Financial Assistance to Families (TANF), designed to help needy families achieve self-sufficiency. State and local agencies administer the distribution of benefits.

- Food/nutrition: USDA initiatives related to food and nutrition include: Woman, Infant Children (WIC), National School Lunch Program (NSLP), Fresh Fruit and Vegetable Program (FFVP), School Breakfast Program and the Supplemental Nutrition Assistance Program. The 2008 farm bill, (H.R. 2419, the Food, Conservation, and Energy Act of 2008), changed the name of the Federal program food assistance to the SNAP. This program, administered at the state and local level, provide benefits to help clients purchase food-related products.
- Housing & Energy Assistance: DHHS Low Income Home Energy Assistance Program (LIHEAP) assists low income households, particularly those with the lowest incomes that pay a high proportion of household income for home energy, primarily in meeting their immediate home energy needs. Benefits are administered at the state and local level.
- Parenting/family planning
- Public Health
- Substance Abuse and Mental Health

A community can be divided into subsets of population groups of people with similar situations that may be better served with programs targeted specifically at them. For example, refugees and immigrants may need services delivered by personnel who speak their native language. Specific population types that may have special program needs include:

- Children and families
- Developmentally disabled
- Homeless
- Immigrants
- Low income
- Physically disabled
- Refugees
- Seniors
- Seriously ill
- Students
- Tribal
- Unemployed
- Veterans

- Youth/adolescents

Figure 2-3 illustrates that health and human services involve staff members at different levels of government and the private sector. Recipients of the services include clients and people in the general public.

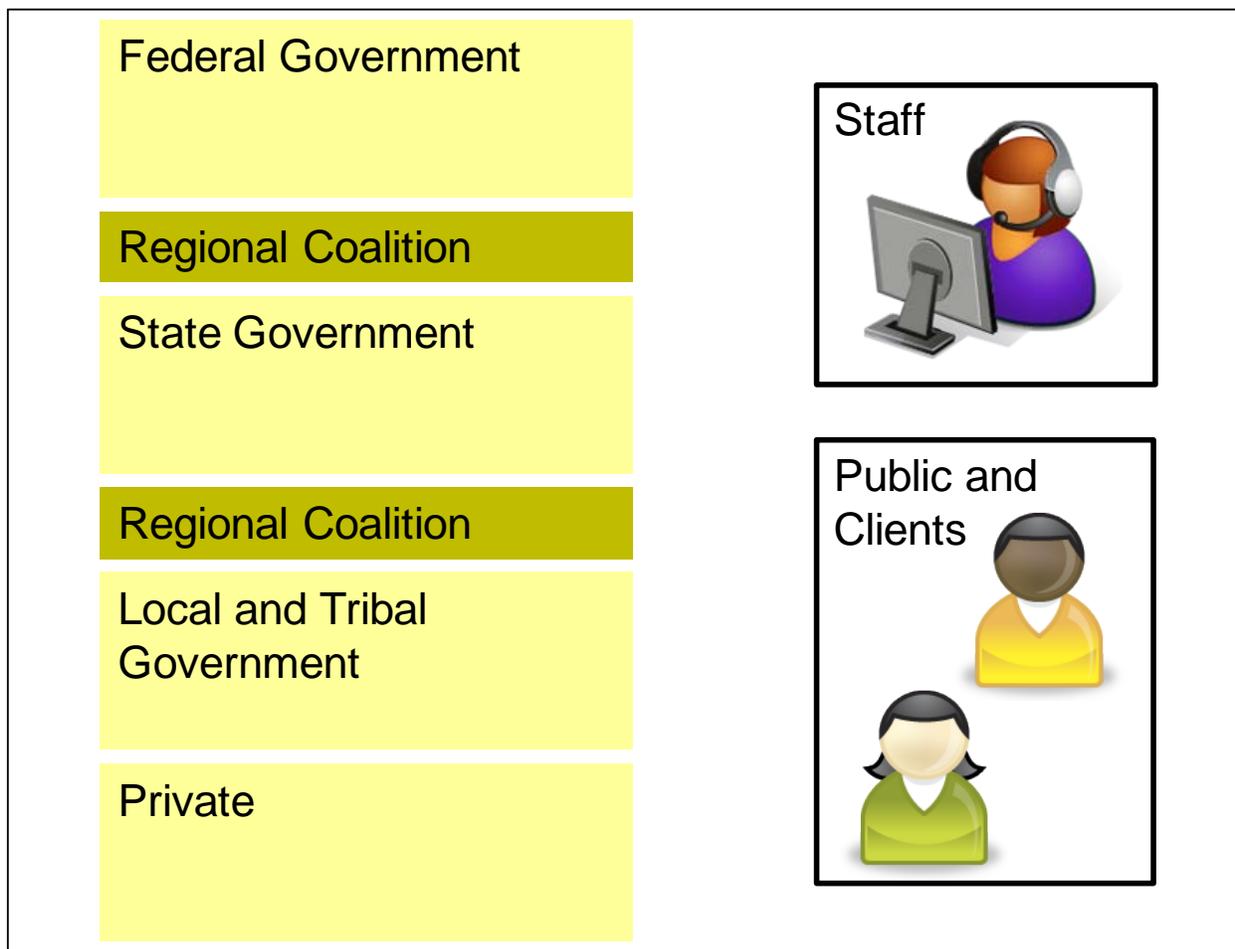


Figure 2-3. Categories of Stakeholders and Users

Government boxes include the staff directly involved in delivering or supporting the delivery of health and human services. Government staff members may be administrators, analysts, auditors, case workers, information technology (IT) staff, managers, planners, supervisors, and other agency workers. Staff members may be in federal, regional, state, local, or tribal agencies; be part of national associations; be affiliated with educational institutions; or support legislative or regulatory bodies. Typically federal government agencies provide guidelines and criteria for federal programs, support standards development, monitor programs, and check for compliance. Federal agencies also provide funding and educational information. Federal programs require reporting. Systems at the federal level support the federal government’s requirements. Regions (often states, counties, townships, or other jurisdictional groupings) sometimes establish coalitions to share resources,

information, and responsibilities related to delivery of human services. State government agencies typically manage regional or statewide programs. State agencies often provide services not related to the direct delivery of care (e.g., payment processing and reporting). State agencies also provide funding and educational information. State programs support reporting to the federal level and require their own reporting. Systems at the state or regional level support the state government's requirements. State, regional, local and tribal government agencies may administer programs and pay for services.

The private sector also includes administrators, analysts, auditors, case workers, IT staff, managers, planners, and supervisors. Service providers, service contractors, and other community partners fall into the private sector. Organizations in the private sector include private organizations, national associations, insurance companies, educational institutions, health institutions, financial institutions, and other private companies. At the community level, regional, local/tribal government and private organizations provide care and services in a holistic manner, assist clients in navigating the services, and collect data at the point of care or service.

The public may access information about available services. Clients typically receive services.

2.3.2 Primary and Secondary NHSIA Stakeholders

NHSIA stakeholders have been grouped into two categories; primary and secondary. The primary stakeholders are those people and organizations who seek, receive, manage and provide human services. These include people or organizations and the systems they use:

- People
 - Individuals seeking information about human services (the public)
 - Individuals/families who are receiving human services (clients)
 - Staff who plan, coordinate, and provide services
 - Staff responsible for administering, managing, and monitoring human services agencies and programs
- Organizations
 - Government agencies (federal, state, local, tribal) that administer, manage, provide, and monitor human services programs
 - Community-based agencies that administer, manage, provide, and monitor human services programs

- Systems that support those people and organizations responsible for the systems

Secondary stakeholders are users of information maintained by the primary stakeholders' systems or providers of information needed by the primary stakeholders including:

- People
 - External auditor
 - Legal staff
 - Researcher
 - Service contractor
- Organizations
 - Court
 - Educational institution
 - Financial institution
 - Non-HS government agency
 - Health institution
 - Insurance company
 - Legislative, regulatory body
 - National association
 - Other private company
 - Research institution
- Systems that support those people and organizations responsible for the systems.

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3 NHSIA Business Model

This initial phase of the NHSIA effort focused on the following business areas:

Client Management: This business area deals with managing client information and managing communications and outreach with clients. This business area maps to the *MITA Member Management* business area.

Eligibility and Enrollment Management: This business area deals with determining client eligibility and enrolling and disenrolling clients in programs and services. Per the strategy adopted for MITA 3.0, this business area also deals with eligibility determination and enrollment for human services providers. This business area maps to the *MITA Eligibility and Enrollment* business area.

Provider Management: This business area deals with supporting the needs of this population, maintaining information on providers, (especially their performance and certification), and communicating with the provider community. This business area maps to the *MITA Provider Management* business area.

Service Management: This business area deals with identifying client needs and providing appropriate services, and monitoring and managing client status. This business area, defined for human services, is the NHSIA counterpart to the *MITA Care Management* business area.

Performance Management: This business area deals with these focus areas: compliance management, performance evaluation, reporting. This business area is the NHSIA counterpart to the *MITA Performance Management* business area.

- Compliance Management: Auditing and tracking conducted to determine necessity and appropriateness of care and quality of care, fraud and abuse, erroneous payments, and administrative abuses.
- Performance Evaluation includes impact evaluations, program monitoring, process evaluations and cost evaluations.

In summary, Client Membership, Eligibility and Enrollment, and Provider Management map closely to their MITA counterparts. Service Management and Performance Management are noted as being counterparts to MITA Care Management and Performance Management, respectively. A significant number of new NHSIA processes were identified for each of these business areas. NHSIA and MITA business areas are expected to converge over time.

The complete NHSIA Business Model also includes these additional business areas:

Contractor Management: This business area accommodates human service programs and states that have managed care contracts or a variety of outsourced contracts.

Finances Management: This business area deals with payments and receivables and “owns” all information associated with service payment and receivables.

Operations Management: This business area deals with managing case workloads and related support. The NHSIA process titled “Manage User Access Privileges” highlights the need to manage user access in order to enable automated workflow and electronic information exchange. This is open component of the overarching security strategy incorporated into NHSIA.

Program Management: The business area deals with strategic planning, policy making, monitoring, and oversight activities of the agency.

Business Relationships: This business area deals with the standards for interoperability between agencies and partners. It contains business processes that include: 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, implement common client release authorization form.

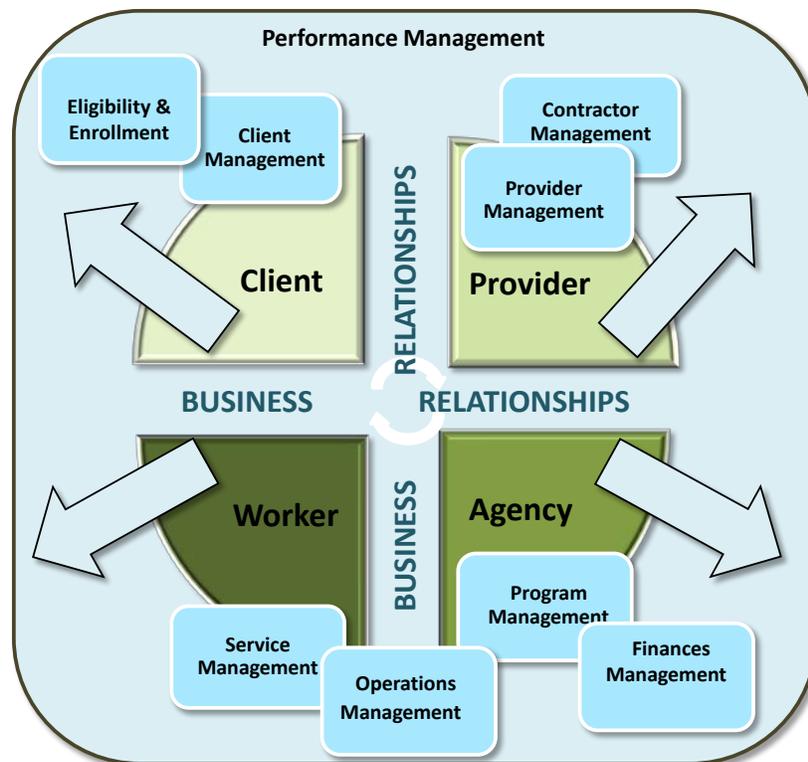


Figure 3-1. NHSIA Business Model

As depicted in Figure 3-1, all NHSIA business areas contribute to Performance Management. In particular, Service Management is key to the collection and reporting of indicators needed to assess desired outcomes. Business Relationships establish the basis for information sharing amongst stakeholders.

Human services programs will define performance measures for their processes; different human services programs may adopt the same measures for certain processes. Process measures are used to evaluate business area and program metrics. “Collection of process measures data” activities are imbedded in processes. The collection of indicators (i.e., data about client status defined as being relevant to the assessment of a program output) is a performance management activity aided by client monitoring. Performance Management processes are discussed in Section 3.2.5; Performance Management concepts are discussed in Appendix D.

3.1 Comparison of Health and Humans Services Domains

The NHSIA business model highlights the commonality between health and human services processes. Overarching similarities between these two domains are summarized in Table 3-1, an excerpt from the Electronic Health Records Applicability White paper by Lehmann, Robinowitz, and Weiner. In Section 3.2, NHSIA processes are mapped to health and human services programs.

Table 3-1. Comparison of Health and Human Services Domains⁴

	Health Domain	Human Services Domain
Patient / Client	<ul style="list-style-type: none"> • Health services provided to a patient • Patient is an individual • Patient wants access to information to understand and manage own care • Patients pay for part of care 	<ul style="list-style-type: none"> • Human services provided to a client • Client may be an individual, family, or household; capturing relationships is critical • Client wants access to information to understand and manage own care • Government generally pays for

⁴ Electronic Health Records: Background, Lessons Learned, and Potential for Application in Other Areas of Human Services, Harold Lehmann, Natanya Robinowitz, Jonathan Weiner, September 16, 2011 [NHSIA artifact]

	Health Domain	Human Services Domain
		care
Provider	<ul style="list-style-type: none"> • Many independent service providers 	<ul style="list-style-type: none"> • Many independent service providers
Primary Care Physician / Case Worker	<ul style="list-style-type: none"> • Services may be coordinated by a primary care physician • Needs info from many sources • Physicians very autonomous 	<ul style="list-style-type: none"> • Services may be coordinated by a case worker • Needs info from many sources • Case workers more constrained by organization and regulations
Data Ownership	<ul style="list-style-type: none"> • Mostly owned by private providers • Private providers control access, complying with patient rights and wishes 	<ul style="list-style-type: none"> • Owned by a mix of government agencies and private providers • Government agencies control access, complying with patient rights and wishes when health or legal info is involved
Data Privacy	<ul style="list-style-type: none"> • Includes Personally Identifiable Info • Governed by many laws and regulations 	<ul style="list-style-type: none"> • Includes Personally Identifiable Info • Governed by many laws and regulations
Health IT / HS IT Investments	<ul style="list-style-type: none"> • Health IT has gained a great deal of momentum due to ARRA, HITECH, and PPACA 	<ul style="list-style-type: none"> • Human services has not received a similar boost, except for Medicaid and the Health insurance Exchanges
Health / Human Service IT Environments	<ul style="list-style-type: none"> • Very complex mesh of systems • Loose coupling, but often in the same business enterprise • Duplicate some functions and data • Generally funded by the 	<ul style="list-style-type: none"> • Very complex mesh of systems • Very loose coupling • Duplicate some functions and data • Generally funded by a Federal

	Health Domain	Human Services Domain
	enterprise using the system; ONC funding augments this	or state program (e.g., Medicaid)
EHR / EHSR	<ul style="list-style-type: none"> • Could be physical or virtual • Immature technology; benefits not proven 	<ul style="list-style-type: none"> • Could be physical or virtual • Does not exist
HIE / HSIE	<ul style="list-style-type: none"> • Immature technology; benefits not proven • Push, pull, ESB, EHR Bank architecture are all being experimented with and have application in different situations • Not enough evidence to pick a single approach as best • Semantic interoperability is essential 	<ul style="list-style-type: none"> • Does not exist • Push, pull, ESB, EHR Bank architectures could all have application in different situations • Not enough evidence to pick a single approach as best • Semantic interoperability is essential
EHR Bank / EHSR Bank	<ul style="list-style-type: none"> • Gives patient ownership and control of their medical information • Private organizations own most of the source information • Contributes directly to improved care for the patient 	<ul style="list-style-type: none"> • Gives patient ownership and control of their human service information • Government agencies owns most of the source information • Not clear that the benefits to the patient are significant
Health / HS Organizations	<ul style="list-style-type: none"> • Provide services to individuals • Generate significant billable revenues 	<ul style="list-style-type: none"> • Provide services to individuals • Do not generate significant billable revenues

3.2 Descriptions of NHSIA Business Processes

This section discusses the Client Management, Eligibility and Enrollment, Provider Management, Service Management, and Performance Management processes. It

also includes mappings of these NHSIA business processes to health and human services domains. Mappings for the remaining business areas are provided in Appendix C.

Table 3-2 explains the notation used in the mappings. The tags are based on the current understanding of the NHSIA team. MITA and SAMHSA business model documents and a preliminary mapping of MITA processes to child welfare operations (done by SACWIS) were used in developing the NHSIA mappings. The SACWIS materials also motivated the specification of additional processes.

Table 3-2. Legend for Mappings

Label	Meaning
NHSIA	Applies to program based on NHSIA analysis
MITA	Applies to program based on MITA docs
SAMHSA	Applies to program based on SAMHSA, VA MITA Self-Assessment / BH docs
NA	Current assessment - does not apply
TBD	Not yet determined if applies or not

The mappings provided in the following sections are considered preliminary. They demonstrate the feasibility of developing an overarching business model that can be applied across human services programs, state agencies, local agencies, etc.

3.2.1 Client Management

Table 3-3 provides the preliminary mapping of NHSIA Client Management processes to human services domains.

Table 3-3. Client Management Business Area Mapped to Human Services Domains

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food / Nutrition
Client Management (CM)										
Client Information Management										
CM1	Establish Shared Client Information	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM2	Manage Shared Client Information	MITA (CM2+CM4)	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM3	Establish Agency Client Information	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM4	Manage Agency Client Information	MITA (CM2+CM4)	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM5	Find Client Information	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
Client Support										
CM6	Manage Client Communications	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
CM7	Perform Population and Client Outreach	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Though the NHSIA business model is largely derived from MITA 3.0, one noteworthy difference between the two models is that in NHSIA, the business area that addresses information management and communications with individuals receiving services is titled Client Management; the comparable MITA business area is titled Member Management. The business processes specified for the MITA and NHSIA business areas are for the most part the same though NHSIA distinguishes

between shared and agency client information while MITA does not. Shared client information is common information used by multiple human and health service agencies. The intent is that common information is shared; how this sharing occurs is defined by the information viewpoint of the architecture. Agency client information is managed by the specific human agency (e.g., Child Protection or Housing Energy Assistance) to support its processes. The primary focus of MITA is the Medicaid environment, but since NHSIA encompasses all human service domains, it must address shared and agency client data.

One difference between NHSIA and MITA is that Manage Client Grievance and Appeal is included in Service Management and not Client Management. The rationale is that most grievances pertain to delivery of services.

- Establish Shared Client Information: This process creates a shared record for a new client.
- Manage Shared Client Information: This process manages information about a client that will be shared across and used by more than one human services agency and/or program. Information in this category is stored once and re-used for different purposes by different agencies, programs, systems, and stakeholders. The shared client information will support efforts to locate related information elsewhere.
- Establish Agency Client Information: This process creates an agency or program-unique record for a new client.
- Manage Agency Client Information: This process manages information about a client that is needed by a single agency or program.
- Find Client Information: This process locates information about a client from accessible electronic resources. The process receives requests for client information from authorized stakeholders and systems; performs the inquiry; and prepares the response data set. The process may access shared client information and information that is unique to an agency/program. The process controls access to information based on rules and agreements.
- Manage Client Communications: This process manages communications between the client and workers, providers, and agency staff. Communications includes: requests and responses related to programs and benefits; requests and responses related to case assistance, appointments, etc.; and notifications (e.g., enrollment status, referral approval status). Communications with the client are managed through a variety of electronic means (e.g., email, text message) and non-electronic means (e.g., letter, phone call). While the information communicated may vary by program, multiple agencies may employ common services to conduct communications with the client.

- Perform Population and Client Outreach: This process identifies and notifies prospective and current clients about programs and services; creates and provides linguistically and culturally appropriate information and educational materials to those same clients; and monitors outreach efforts and effectiveness.

3.2.2 Eligibility and Enrollment

Table 3-4 provides the preliminary mapping of NHSIA Eligibility and Enrollment processes to human services domains.

The NHSIA Eligibility and Enrollment business area includes the processes specified in the MITA model; it spans clients and providers. The NHSIA business model also includes the following additional processes:

- Eligibility Intake: This process is consistent with Center for Medicare and Medicaid (CMS) concepts pertaining to Health Insurance Exchanges (HIXs).
- Monitor License/ Credentials Change: This process allows for stakeholders to be notified whenever there is significant change in a provider's license/ credentials status. Disenrollment may be initiated; meantime providers are precluded from being considered during service arrangement. Conversely, updates could inform stakeholders that a given provider is cleared to provide services.
- Inquire Client Enrollment and Inquire Provider Enrollment: These processes support the sharing of enrollment information.

The preliminary mapping provided in Table 3-4 indicates all human services domains appear to involve some form of eligibility determination but it is not clear whether all require enrollment, e.g., child- related human services programs may not. Also, clients may move in and out of enrollment in a given program. For this reason, the client Enrollment process includes accessing the client's previous history information so it can be considered in the current enrollment event (part of Verify Information activity in Enrollment process). This means case information needs to be retained even during periods when the client is not enrolled in the program.

Table 3-4. Eligibility and Enrollment Business Areas mapped to Human Services Domains

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Eligibility and Enrollment Management (EE)										
Client Enrollment										
EE5	Eligibility Intake	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
EE1	Determine Client Eligibility	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
EE2	Disenroll Client	MITA	NA	NHSIA	TBD	TBD	TBD	TBD	NHSIA	NHSIA
EE3	Enroll Client	MITA	NA	NHSIA	TBD	TBD	TBD	TBD	NHSIA	NHSIA
EE4	Inquire Client Enrollment	MITA	NA	NHSIA	TBD	TBD	TBD	TBD	NHSIA	NHSIA
Provider Enrollment										
EE6 (PM7)	Determine Provider Eligibility	MITA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
EE7 (PM8)	Disenroll Provider	MITA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
EE8 (PM9)	Enroll Provider	MITA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
EE9 (PM10)	Monitor License/Credentials Change	NHSIA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
EE10	Inquire Provider Enrollment	MITA	NHSIA	NHSIA	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA

Processes dealing with decisions pertaining to eligibility and enrollment include the approve action. [In MITA, the term “authorize” is used instead of approve. NHSIA reserves “authorize” for allowing access to information.] The premise is that eligibility and/or enrollment is approved by a worker or a proxy. An automated workflow implemented per approved rules may serve as a worker proxy. The NHSIA architecture needs to accommodate both manual and automated modes of acquiring this approval.

A potential concept of operations is that initial eligibility/ enrollment is approved based on available information but is then subject to further verification; infractions can result in enrollment being revoked. NHSIA should make it easier to verify information needed to determine eligibility and enrollment. NHSIA vignettes examine operations in which eligibility determination and enrollment are integrated with performance management processes. Specifically, compliance management processes invoked to check enrollment status across jurisdictions are included in operational threads dealing with eligibility determination and enrollment. Likewise, vignettes that examine performance management should include checking eligibility status (even if client is already enrolled in program) as part of on-going monitoring.

- **Eligibility Intake:** This process entails “interviewing” the client to collect information relevant to needs and eligibility status. Interactions can occur directly between client and worker (e.g., eligibility worker, benefits navigator, caseworker) or through an electronic interface accessed by the client (e.g., benefits portal).
- **Determine Eligibility:** This process requests/ receives / obtains client-related information and applies criteria to make the determination that an individual (or family) is eligible to receive services. Eligibility criteria are defined by programs; some programs have financial and related requirements while others provide services per availability to all who request the service

and have a qualifying diagnosis. This process supports determination of eligibility for the title IV-E (child welfare), title IV-D (child support), title XIX (Medicaid), etc.; for title IV-E, it automatically assesses the following three factors: 1. Financial component; 2. Court hearings and document language; 3. Placement conditions – licensing.

- Disenroll Client - This process is responsible for managing the termination of a client's enrollment in a program, including: processing of eligibility terminations and requests for disenrollment; validating that the termination complies with rules/ policies/ procedures; initiating the update of client and case information; and notifying the client and other stakeholders. Program information is updated to reflect enrollment changes.
- Enroll Client - This process is responsible for managing a client's enrollment in a program, including: verification of information (including checking for client history pertaining to previous enrollment); approval for enrollment; triggering the update of agency enrollment records, person records and case records; and notifying the client, case workers and service providers. Program information is updated to reflect enrollment changes.
- Inquire Client Enrollment - This process is responsible for managing requests pertaining to a client's enrollment in health and human services programs. The objective is to enable the sharing of enrollment status information across organizations and jurisdictions.

MITA 3.0 groups client and provider eligibility and enrollment processes into the Eligibility and Enrollment business area. NHSIA now does the same.

- Determine Provider Eligibility: This process involves collecting, monitoring, reviewing provider information (e.g., service history, expertise, licensing status) to determine whether a given provider is approved to deliver human services on behalf of an agency and/or other authoritative entity. Eligibility / Enrollment are prerequisites for a provider to be compensated.
- Disenroll Provider - This process is responsible for managing the termination of a provider's enrollment (i.e. ability to deliver services). This may apply to a single program or could span multiple programs.
- Enroll Provider - This process receives eligibility data from the Determine Eligibility process, loads the enrollment outcome data into the Provider Registry and produces notifications to stakeholders.
- Monitor License/Credentials Change: The process involves monitoring changes to license/ credentials status and taking appropriate action to

changes in status.

- **Inquire Provider Enrollment** - This process is responsible for managing requests pertaining to a provider’s enrollment as an authorized service provider for in health and human services programs. The objective is to enable the sharing of enrollment status information across organizations and jurisdictions.

3.2.3 Provider Management

Table 3-5 provides the preliminary mapping of NHSIA Provider Management processes to human services domains.

Table 3-5. Provider Management Processes Mapped to Human Services Domains

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Provider Management (PM)										
Provider Information Management										
PM1	Establish Provider Information	NHSIA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
PM2	Manage Provider Information	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
PM3	Find Provider Information	MITA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
Provider Support										
PM4	Manage Provider Communications	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
PM5	Manage Provider Grievance and Appeal	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
PM6	Perform Population and Provider Outreach	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
Contractor Management (CO)										
Contractor Information Management										
CO1	Establish Contractor Information	NHSIA	NHSIA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO2	Manage Contractor Information	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO3	Find Contractor Information	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Contractor Support										
CO4	Manage Contractor Communications	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
CO5	Perform Contractor Outreach	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO6	Manage Contractor Grievance and Appeal	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
Contract Management										
CO7	Produce Solicitation	MITA	NHSIA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO8	Award Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
CO9	Manage Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
C10	Close Out Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD

The Provider Management business area is closely aligned with the corresponding MITA business area.

- **Establish Provider Information:** This process creates a provider record for a new service provider.
- **Manage Provider Information:** This process manages information about a provider that will be shared across and used by more than one human services agency and/or program. Information is stored once (in a Provider Registry) and re-used for different purposes by different agencies, programs, systems, and stakeholders.

- Find Provider Information: This process locates information about a provider from accessible electronic resources. The process receives requests for provider information from authorized stakeholders and systems; performs the inquiry; and prepares the response data set. The process controls access to information based on rules and agreements.
- Manage Provider Communications: The Manage Provider Communications business process manages all aspects of communicating with service providers. Communications are researched, developed and distributed electronically as appropriate. Communications with the provider will be managed through a variety of electronic means (e.g., email, text message) and non-electronic means (e.g., letter, phone call). While the information communicated may vary by program, multiple agencies will likely employ common services to conduct the communications.
- Manage Provider Grievance and Appeal: This process deals with grievances relayed by a provider or the provider's representative having to do with enrollment, non-payment, etc. The process spans identification of grievance, appeal and final resolution.
- Perform Population and Provider Outreach: This process originates within the agency to identify and notify prospective and current clients about programs and services; create and provide linguistically and culturally appropriate information and educational materials; and monitor outreach efforts and effectiveness. Provider data is analyzed to develop outreach methods and materials and to target specific populations.

3.2.4 Service Management

NHSIA Service Management represents a significant extension to MITA 3.0. Service Management is addressed in a separate white paper. Table 3-6 provides the preliminary mapping of NHSIA Service Management processes to human services domains.

Table 3-6. Service Management Processes Mapped to Human Services Domains

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Service Management (SM)										
Core Services Management										
SM1	Establish Case	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM2	Manage Case Information	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM3	Find Case Information	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM4	Intake Client	NA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM5	Screening and Assessment	NA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM6	Develop Service Plan (Goals, Methods and Outcomes)	NA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
SM7	Conduct Investigation	TBD	TBD	TBD	NHSIA	NHSIA	NHSIA	NHSIA	TBD	TBD
SM8	Service Arrangement, Referral, Placement	NA	SAMHSA	NA	NHSIA	NHSIA	NA	NHSIA	NA	NA
SM9	Manage and Monitor Client and Outcomes	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM10	Cross-Agency Case Coordination	NHSIA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM11	Close Case	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
Approval Determination										
SM12	Approve Referral	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM13	Approve Service, Level of Service	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
SM14	Approve Plan	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
Service Management Support										
SM15	Manage Client Grievance and Appeal	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
Clinical Case Management Extension to Services Management										
SM16	Admit, Enroll Client	NA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
SM17	Develop Discharge Planning	NA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
SM18	Discharge Client	NA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
SM19	Prevention	NA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD

The Service Management business area is explained in the NHSIA white paper titled “How the Client and Case Management Are Addressed in NHSIA”. As previously stated, the Service Management business area is the NHSIA counterpart to the MITA 3.0 Care Management business area. MITA processes were augmented with additional processes needed to address human services operations.

The “case management” white paper explains that the NHSIA Service Management business area adopted some of the processes specified in BH-MITA. These processes are included in Core Services Management. Other BH-MITA processes, grouped in Clinical Case Management Extension to Service Management, do not appear to apply to human services and are more appropriately considered in an extended Care Management business area.

- **Establish Case:** This process includes creation of relevant "case" records. The process interacts with the Client Management business area in which client information is collected and recorded. A search is conducted for prior history information (persons, incidents); linkages to other data sources are identified and established. The Establish Case process includes the assignment of case to an appropriate worker.
- **Manage Case Information -** The Manage Case Information process includes collecting, updating, sharing, searching and freezing case data. Often, different services are administered by different agencies or entities; sometimes these agencies are managed under a single HHS department though not always. These processes support the management of case records and the case portfolio, the virtual compilation of all case records pertaining to the client.

- Find Case Information: This process locates case information. The process receives requests for case information from authorized stakeholders and systems; performs the inquiry; and prepares the response data set. The process controls access to information based on rules and agreements.
- Intake Client: This process involves interviewing the client to assess health, behavioral health, life style and living conditions and updating information as required. The Intake Client process is often done in tandem with the Screening and Assessment process.
- Screening and Assessment : This process includes evaluating the health, behavioral health, life style and living conditions information ; screening the client to determine risk factors; identifying risk categories, hierarchy, and level of need; evaluating current risk assessment against previous risk assessments; collecting and recording special needs; recording findings.
- Develop Service Plan (Goals, Methods and Outcomes): This process uses Federal and State-specific criteria, rules, best practices and professional judgment to develop a client plan that optimizes successful outcomes. Process includes acquiring necessary supervisory approval.
- Conduct Investigation: This process is utilized in Child Protection but may also apply to the other human services domains. The investigation process begins with a report of child abuse and/or neglect of a child living in a family, day care center and restrictive care facilities, or a foster home. Reports are screened to determine if the reported information constitutes a report of child abuse and/or neglect that should be investigated. A child protection investigation worker investigates the allegations made by the reporter in order to determine whether or not a child has been abused and/or neglected. In addition to the determination of the validity of the report, the worker is responsible for assessing the risk of further harm or injury to a child victim.
- Service Arrangement, Referral, Placement: This process is used to refer or assign clients to specific providers for particular services; match client needs with provider; and broker services (to include establishing service limits). Checks are conducted to ensure providers are eligible and enrolled to provide services. The process includes acquiring necessary supervisory approval. It is used by providers/ contractors to make follow up referrals for services.
- Manage and Monitor Client and Outcomes : This process involves evaluating the quality of services and determining if the goals established within the case plan are being met. This process includes initiating the service arrangement and referrals as needed; documenting delivery of services and compliance with the plan; recording client contact and performance; conducting case reviews to reevaluate the goals and case plans developed

during initial screening and assessing whether changes to case plans are warranted; generating a case summary; and generating case status.

- Cross-Agency Case Coordination : This process involves coordinating case plans in place for a given client to reevaluate the goals and case plans to assess whether changes to case plans are warranted; developing an integrated strategy for services that is efficient and effective; identifying gaps in services and redundant services.
- Close Case: This process includes determining that services are completed and implementing procedures for managing the information of closed cases.
- Approve Referrals: This process involves getting referrals approved, recording the decision, and notifying stakeholders of approval status.
- Approve Service, Level Service: This process involves getting a service or level of service approved, recording the decision, and notifying stakeholders of approval status.
- Approve Plan: This process involves getting a case/ care plan approved, recording the decision, and notifying stakeholders of approval status.
- Manage Client Grievance and Appeal: This process deals with grievances relayed by a client or the client's representative having to do with enrollment, quality of services, level of service, etc. The process spans identification of grievance, appeal and final resolution.

3.2.5 Performance Management

3.2.5.1 Introduction

NHSIA Performance Management represents a significant extension to MITA 3.0. The NHSIA Performance Management business area includes these sub-areas: Compliance Management and Performance Evaluation.

- Compliance Management is the monitoring, auditing and tracking conducted to determine necessity and appropriateness of services and quality of services, fraud and abuse, erroneous payments, and administrative abuses.
- Performance Evaluation includes impact evaluations, performance monitoring, process evaluations and cost evaluations. Performance evaluation includes both business intelligence, i.e., how well the program is being managed and executed, and assessment of strategic outcomes. Strategic outcomes are concerned with anticipated change(s) in client and client population state relative to specific needs. Impact evaluations examine the correlation between services provided and clients' realized end-state.

An explanation of evaluation terms, evaluation strategies and the impact evaluation methodology is provided in Appendix D NHSIA Performance Management Business Area.

3.2.5.2 Compliance Management

The current list of NHSIA business processes defined for compliance management is provided in Table 3-7.

Table 3-7. NHSIA Performance Management - Compliance Management Processes

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Performance/ Utilization Management (UM)										
Compliance Management										
UM1	Identify Enrollment Anomaly	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM2	Identify Utilization Anomaly	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM3	Identify Provider Anomaly	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM4	Establish Compliance Incident	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM5	Manage Compliance Incident Information	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM6	Determine Action to Resolve Compliance Incident	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA

- **Identify Enrollment Anomaly:** This process checks enrollment status across programs and jurisdictions to determine if a client is already enrolled for these services or comparable services. This process supports detection of fraud and non-adherence to program or agency rules and procedures.
- **Identify Utilization Anomaly:** This process detects improper utilization of services (e.g., receiving excessive services, not following case plan, or another individual receiving services instead of client) as defined in program/agency rules and policies.
- **Identify Provider Anomaly:** This process detects improper accounting or billing of services by providers, issues with credentials and certifications, etc.
- **Establish Compliance Incident:** This process creates the records used to document information pertaining to the compliance incident. This process includes reporting the compliance incident.
- **Manage Compliance Incident Information:** This process includes: verifying, entering, sharing, and archiving incident information. Essential parties are notified when the incident information changes.
- **Determine Action to Resolve Compliance Incident:** This process includes collaboration to resolve the incident, deciding on a resolution, and documenting the decision and course of action. This process includes reporting resolution results.

3.2.5.3 Performance Evaluation Processes

Performance Evaluation involves the selection and use of a limited number of indicators that can track critical processes and outcomes over time and among accountable stakeholders, the collection and analysis of data on those indicators, and making the results available to inform assessments of the effectiveness of an intervention and the contributions of accountable entities. The current list of NHSIA business processes defined for performance evaluation is provided in Table 3-8.

Table 3-8. NHSIA Performance Management: Performance Evaluation Processes

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Performance/ Utilization Management (UM)										
Performance Evaluation										
UM7	Develop Evaluation Plan	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM8	Manage Performance Data Collected Via Other Processes	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM9	Collect Additional Data	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM10	Analyze and Interpret Data	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM11	Develop Evaluation Report	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
UM12	Generate Federal and State Reports	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA

- Develop Evaluation Plan: This process includes:
 - Characterize program: Define accountable agencies and individuals. Document what the program is supposed to accomplish, what processes the workers follow in the program, what processes the clients follow in the program, the services provided.
 - Develop the Evaluation Questions: Identify the types of evaluation and questions to be answered.
 - Develop the Logic Model: This activity is key to the success of the evaluation. Document resources, activities, inputs, outputs, and desired outcomes and define the link between the inputs, outputs and desired outcomes are discovered/validated. [A causal relationship must exist between an output and an outcome in order to evaluate the program effectiveness. This is because oftentimes external or environmental factors can affect results and outcomes, so the causal relationship between outputs and outcomes must be sufficiently identified and proven real.]
 - Identify/Develop Metrics, Measures, and Outcomes: Identify metrics, measures, and outputs relevant to evaluation. Identify per process where the data required for evaluation is collected and stored. If the data is not currently being collected and stored, identify opportunities in processes to resolve these gaps.

- Manage Performance Data Collected Via Other Processes: This process compiles the data (e.g., from case records) identified as evaluation metrics. Performance management activities done in concert with other processes, such as Determine Eligibility, allow for the collection of data during the conduct of those processes. Ideally, the majority of evaluation data can be acquired in this manner. Includes
 - Gain Access to Data: Provide evaluators access to data per defined access policies
- Collect Additional Data: This process collects additional required for the evaluation. The process includes:
 - Gain Access to Data: Provide evaluators access to data per defined access policies
 - Collect Qualitative Data: Conduct and document observations, interviews, document reviews, photographs, descriptions of incidents, actions and processes all need to be conducted and recorded to support the evaluation. Qualitative data most likely exist within ALL the processes of a given program, and all data must be identified and collected by the evaluators.
 - Collect Quantitative Data: Collect numerical data (via reports, tests, surveys, databases, etc.).
 - Collect Data from Clients No Longer in the Program: Could be done by collecting data via other processes within the program collecting data from clients who have completed the program, or from other programs. Alternatively, create/develop surveys or other means of finding the prior clients and asking them for an update.
- Analyze and Interpret Data: In this process data is analyzed in a variety of ways. Linkages and causality must be established between the outputs of the program, and the desired outcomes of the program for the evaluation to be successful. Data must be organized and presented in formats that are easily understood by other persons reading the evaluation.
- Develop Evaluation Report: This process requires the evaluation to be explained in full. The report will include all parts of the evaluation and descriptions and all processes involved. The linkages between inputs, outputs and outcomes must be clear and supported by either/both qualitative and quantitative data as evidence. The report must annotate the effectiveness and success of the program, or any improvements that need to be made. The report must include recommendations. The report must be readable and the data must be presented in an organized and easily read format. This process

also includes dissemination of the evaluation report per established procedures.

- Develop Federal and State Reports: This is an umbrella process that encompasses the generation and delivery of defined federal or state reports. The reports are standard, periodic reports (e.g., audit reports) which provide status of program outputs, program costs, etc.

3.3 Business Viewpoint Relationship to other NHSIA Viewpoints

Relationships between the business viewpoint and other NHSIA viewpoints are depicted in Figure 3-2. Business activities and associated actions highlight services with potential utility across business areas and human services domains.

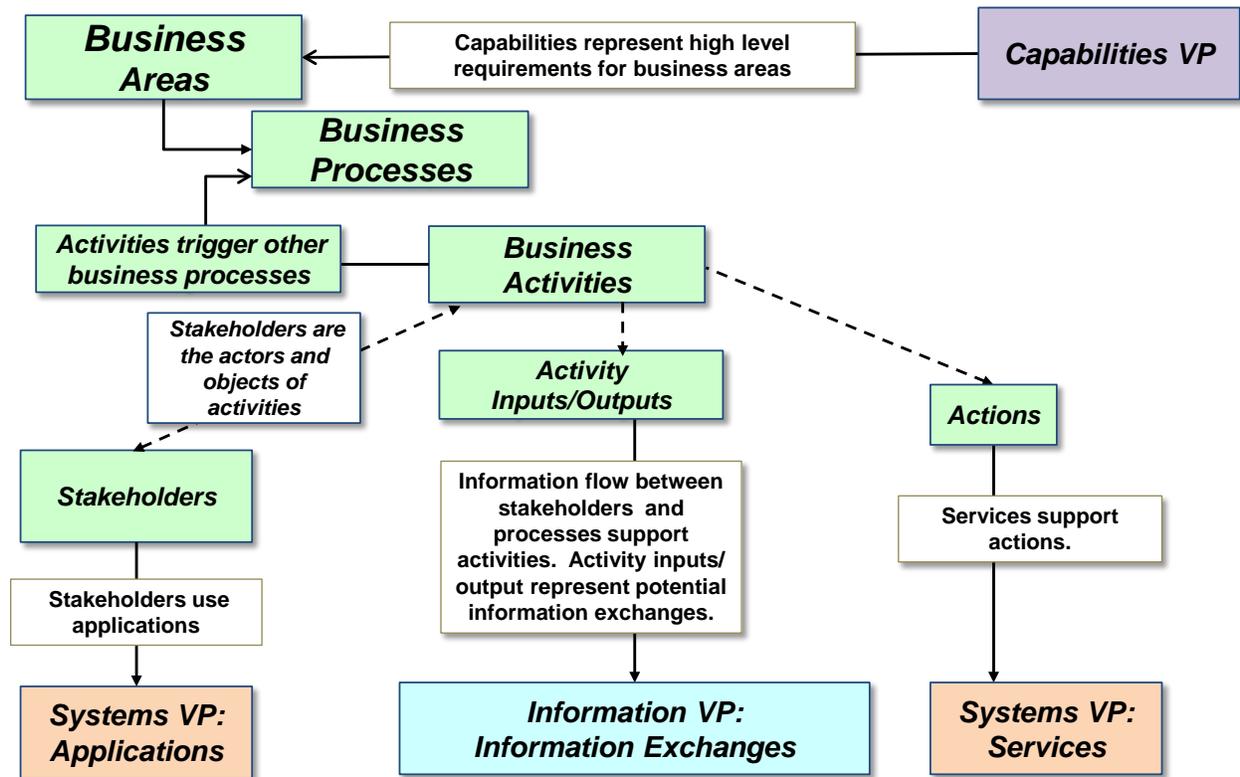


Figure 3-2. Relationships between Business Viewpoint and other NHSIA Viewpoints

Inputs and outputs specified for business process and activities are mapped to information exchanges used to transmit information. Capabilities are mapped to business process and/or activities, highlighting opportunities for re-use of capabilities across processes, business areas, and human services domains.

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4 NHSIA Scenarios and Vignettes

4.1 Introduction

NHSIA Business Viewpoint includes a catalogue of scenarios and vignettes that support examination of NHSIA objectives and expected benefits. Scenarios are real-world situations that serve to illustrate how the NHSIA architecture will enable human service operations; vignettes are operational threads describing scenarios that can span several business processes. Scenarios and vignettes are useful for communicating NHSIA concepts to State stakeholders and explaining the architecture viewpoints. Beyond their use in this document, the scenarios and vignettes provide a common context for further refinement of NHSIA information exchanges and data services.

The two types of scenarios considered for NHSIA, Client in Need and Effective Human Services Programs, are summarized in Table 4-1.

Table 4-1. NHSIA Scenarios

NHSIA Objectives	Scenario Type	Scenario Focus
Integrated, cross-program delivery of human services to client in need	Client in Need	Transition and expansion of services as needs are defined and change. Synchronization of services across programs/agencies.
Effective program operations and evaluation	Effective Human Services Programs	Ability to implement program changes and support national-level reporting. Utilization of common resources.

Four groups of stakeholders are considered in vignette descriptions: clients, workers, providers and agencies. In Figure 4-1, these categories are mapped to the more detailed list of stakeholders identified for NHSIA.

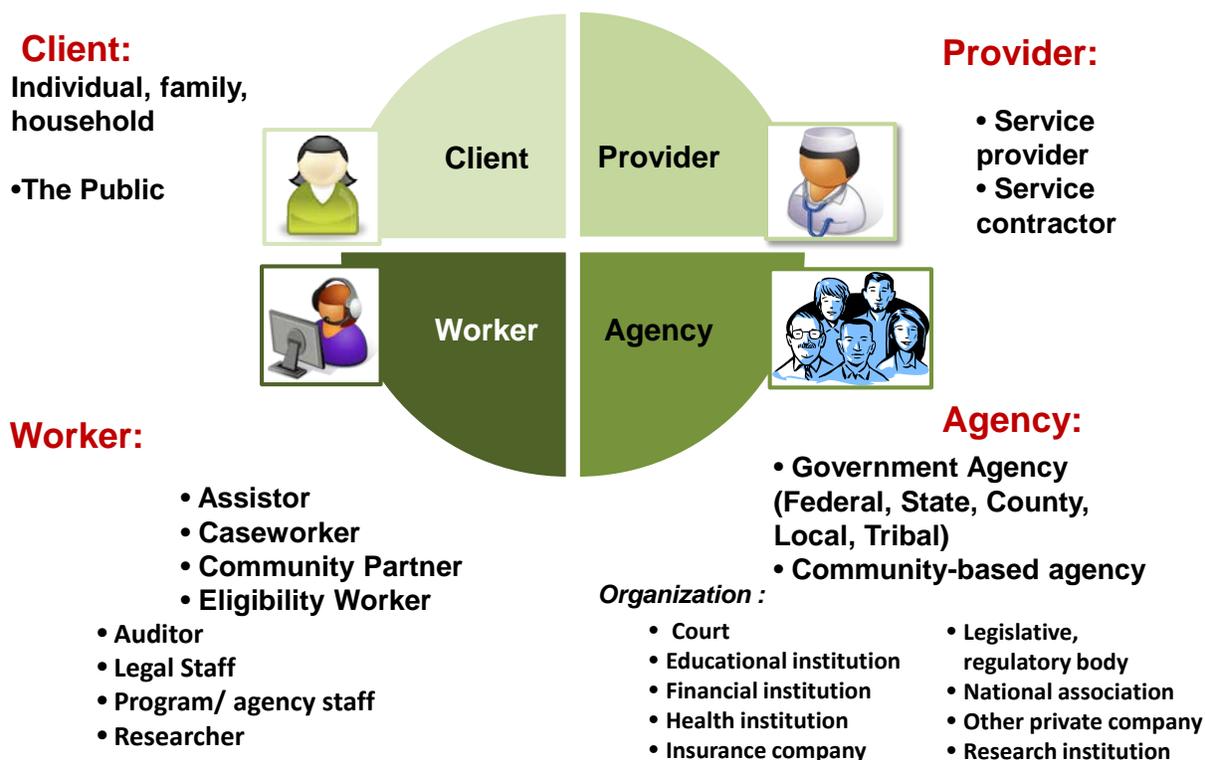


Figure 4-1. Stakeholders Considered in Vignette Descriptions

NHSIA scenarios and vignettes are described in the document NHSIA Scenario and Vignettes. A short narrative is provided for each scenario. Multiple vignettes are considered per scenario. The following topics are presented for each vignette:

- Scenario narrative: Since vignettes are provided in separate attachments to this document, the relevant scenario narrative is included with each vignette to provide context.
- Vignette narrative and operational thread: A list of the significant events in the vignette is provided.
- Capability Viewpoint Discussion: The list of NHSIA capabilities invoked in the vignette is provided. Capability descriptions are provided in the Capability Viewpoint document. Business Viewpoint Discussion: A mapping of events to NHSIA business processes is provided.
- System Viewpoint Discussion: A preliminary list of the shared services expected to be employed in the vignette is provided.

- **Information Viewpoint Discussion:** A preliminary list of data exchanges and data structures expected to be employed in this vignette is provided.
- **Infrastructure Viewpoint Discussion:** A representative infrastructure pattern that could be employed in this vignette is provided.
- **Summary Discussion:** Each vignette exposes challenges and considerations that will need to be addressed by NHSIA. Also, NHSIA capabilities may yield opportunities to evolve business operations. These types of topics are addressed in the Summary Discussion.
- **Working Decisions:** Assumptions about capabilities and operations considered when developing the vignette descriptions are documented as “working decisions”. These working decisions may change as the architecture matures and stakeholders provide feedback.

4.2 Client in Need Scenario: At-Risk Family with Small Children

This scenario involves a family unit, a “client group”, with needs that require a variety of health and human services (see Figure 4-2). Multiple health and human service agencies and the public school system will have to share information and coordinate case plans in order to address the complex needs of this client group. The family has recently moved to the county. The mother’s visit to a public health clinic (related to her pregnancy) is their initial contact with health and human services in this county. The family is directed to the local child welfare agency and over time, a variety of case workers become involved with the client group as medical, financial, housing, counseling and child care services are initiated. At one point, the mother is hospitalized due to medical complications; during this time her children are briefly placed in foster care.

- **42-year old with no extended family support**
- **Appears to be some domestic violence at home**
- **Has two children ages 2 and 6 – and is pregnant again**
- **2 year old needs child care, family can not afford it**
- **6 year old has special needs and housing is unstable**

Human Services offered to address these complex needs

- a. **Public Health Clinic**
- b. **Child Care Services, Child Foster Care**
- c. **Maternity Services**
- d. **Income Support Services**
- e. **Domestic Violence Services**
- f. **Adult Mental Health Services**
- g. **Housing Stabilization Services**
- h. **Education through Public School System**

Other benefits: Medicaid



Adapted from
 "SAMHSA/DHHS Interoperability
 Meeting" Brief, June 6, 2010
 Montgomery County, MD Department
 of Health and Human Services

Figure 4-2. At Risk Family with Small Children Scenario

4.2.1 Multi-Program Eligibility Determination Vignette

While at the public health clinic, a caseworker interacts with the mother to identify the family's needs and help determine which services this client group may be eligible to receive. The mother provides information that is captured via an on-line application system. Also, the caseworker retrieves any available information pertaining to this client group. Given that the family is new to the county, available information is possible through agreements in place with other entities e.g., Medicaid agency in another jurisdiction. The mother grants agencies access to family data to facilitate timely procurement of services.

Initial eligibility determinations are generated per agency-specific guidelines and the mother is notified of the family's eligibility status. As part of the initial eligibility determination event, other agencies are notified of the client group preliminary eligibility status and appropriate processes are triggered via established automated workflow.

4.2.2 Multi-Program Service Management to Reduce Readmissions Vignette

The mother in the at-risk family scenario is briefly hospitalized due to issues related to her pregnancy. Because of the mother's hospitalization, the children are

placed in temporary foster care. Appropriate agencies are notified as part of the admission processes.

The hospital staff is concerned that the mother's apparent poor prenatal practices and the family's overall situation may result in repeated readmissions. Human service agencies are notified of the imminent release and updated on the mother's status. In particular, children preventive services, domestic violence prevention and housing services are alerted of the situation.

4.2.3 Multi-Program Monitoring of Client Status and Outcomes Vignette

The mother's release from the hospital triggers increased monitoring of the client. Workers from different agencies collaborate to determine whether changes to case plans are needed to deter future hospitalizations prior to delivery. Case workers are able to quickly share their case summary and status, allowing everyone to have a shared understanding of the client situation. Some adjustments are made to case plans and the client is involved in defining the course of action. Over the next several weeks, monitoring of the client is conducted and agencies are provided periodic updates on the comprehensive status of the client.

4.3 Effective HS Programs Scenario: Managing Efficient Programs within a Region

A region (large metropolitan area and two adjoining states) is experiencing significant financial challenges and human services agencies have to prioritize expenditures. See Figure 4-3. Agencies are under significant pressure to report performance outcomes as part of financial planning. They must consider both federal and state defined performance measures and outcomes.

Frequent relocation of clients within the region poses challenges to local human service agencies. There is concern that some clients may be receiving redundant services in multiple jurisdictions.

Agencies want to strengthen eligibility determination, authorization and monitoring processes. Agencies are also hoping to implement practices that allow access to previous and current service history, regardless of jurisdiction. Finally, timely, on-demand reporting is needed to improve effectiveness and efficiency of programs.

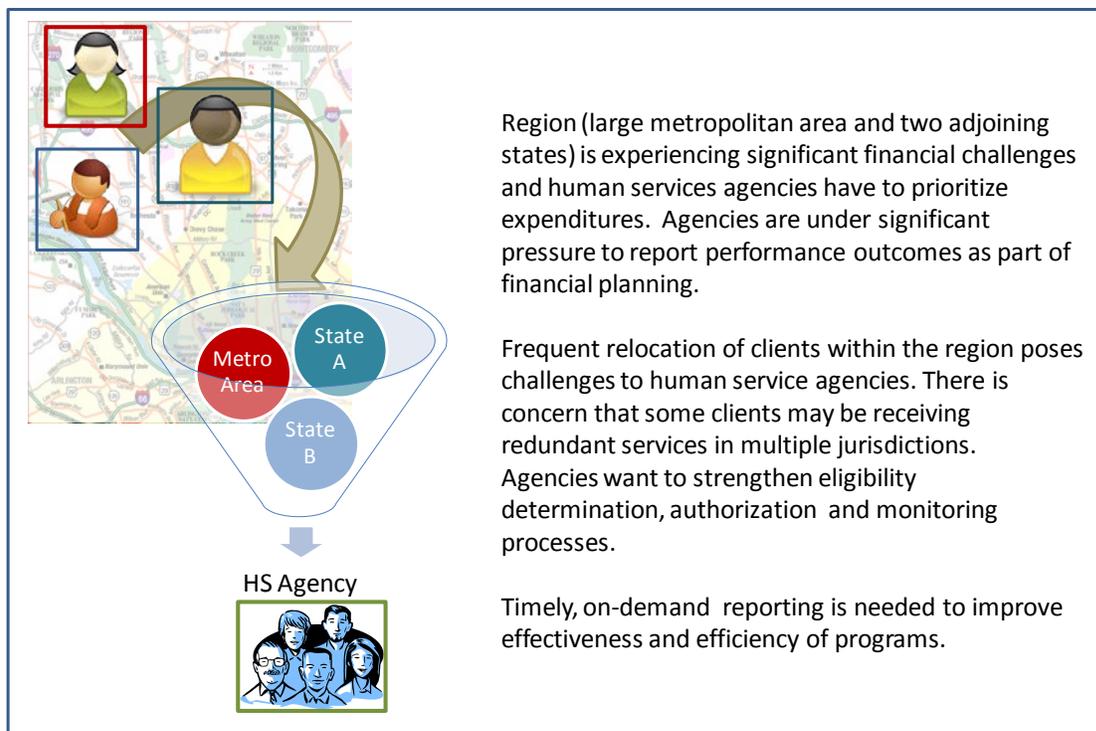


Figure 4-3. Managing Efficient Programs within a Region

4.3.1 Real Time Monitoring - Coordination of Benefits and Fraud Determination Vignette

As part of its eligibility determination process, each agency ensures ensure that client information is verified real-time against reliable sources. Further, agencies want to incorporate a daily check (if not more frequent) to determine if the client is receiving the same benefits in a different jurisdiction in a manner that constitutes fraud. Finally, agencies want to implement on-going monitoring of factors, such as whether income assets have changed, that may affect client eligibility status and be notified when eligibility should be re-evaluated.

4.3.2 Conduct Longitudinal Study that Involves Multiple Human Service Programs Vignette

States A and B are both enrolled in a longitudinal study that involves more than one human service agency. This several-year study is examining the impacts of housing assistance options on child welfare. The two states collaborate to determine how to instrument their respective processes so that data can be collected during the conduct of service management processes. They capture quality data and minimize the reporting burden on caseworkers, allowing them to focus on clients. States are able to periodically assess study findings while the study is still in

progress and also, to implement changes and measure them based on preliminary findings.

4.3.3 Compare State Program Usage and Status Vignette

Prompted by the fluidity of the client population between their respective jurisdictions, States A and B agree to share certain program usage and status data. The states receive periodic, automated reports. These reports support a joint panel established to review findings and recommend adjustments.

4.3.4 Continuity of Services After a Disaster Vignette

A hurricane devastates a section of State A, causing clients to relocate to other areas in State A as well as other locations within the region. Workers in these other jurisdictions are able access case records and enrollment data, thereby avoiding a significant disruption in the services provided to these clients.

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Appendix A – References

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Practical considerations related to management of human services and information sharing:

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Appendix B – Terms Used in NHSIA Business Model

Table B-1: Action Terms Used in Business Activity Descriptions

Title	Description
Approve	Approve services, enrollment, etc. Involves decision
Archive	Create a copy of person-related or case-related records for retention purposes
Authorize	Allow / give permission to access data; used in context of security, i.e., access authorization
Delete	Remove a record, file, folder, etc.
Determine	Make a decision based on (client) information and rules/ criteria.
Develop	Generate a plan or course of action based on client and/or case information, agency procedures, rules, guidelines, objectives
Enter	Insert client, provider, case information into physical or electronic record
Evaluate	Assess client situation to determine needs, risk, etc.
Expunge	To permanently remove a Case Record or series of Case Record Entries. The expunge may result from time related state mandate or case appropriate deletion.
Freeze	Manage data so that it cannot be updated in order to preserve a record of actions, decisions, status, etc."
Identify	Provide enough information to uniquely identify/name/specify an entity (e.g., client, provider, case, worker)
Inform	To provide information, usually to a client or provider, information relevant to the stakeholder. Differs from notify, which implies proactive action to inform specific stakeholders, while inform is passive, where information is made available to stakeholders.
Initiate	Start a file, record, etc., such as case record/file.
Interview	Interact with client to collect specific information; could be done in person or through an application
Notify	Inform specific stakeholders about new information, decisions, status, etc.
Record	Capture information (e.g., scan a document or import a file) so that it can be later retrieved
Request	Asking for information
Respond	Prepare information in a format useful to the recipient.
Retrieve	Fetch information from one or more electronic sources.
Review	View information, check information
Share	Exchange information with stakeholder or system
Track	Maintain information that indicates the status, responsibility, progress on, a particular issue or treatment or problem related to a client or service provider.
Trigger	Cause a process or activity to be initiated or prompted.
Verify	Check information against one or more other sources.

Table B-2: Stakeholder Terms Used in Business Activity Descriptions

Title	Description
Agency	Public organization that provides human services
Case person	A person who is a client of a case.
Client	A person, small group, or larger population that is receiving or may receive human services.
Person	Someone who is interested in or already receiving human services. When the person starts to receive services, he/she is also called a “client.” Several persons may be considered a client if they receive services as a group (e.g., a household).
Program	A funded activity to deliver a set of one or more human services; usually established by law and managed by an agency in accordance with specified regulations
Program/agency staff	Person (other than worker) who supports a human services program or agency.
Public	General population with interest in human service programs, services offered by these programs, program performance.
Service provider	Agency, company or individual that provides human services.
Worker	Includes caseworker, eligibility worker, assistor, etc. In automated operations, an application may operate as a proxy for a worker.

Table B-3: Information Input and Output Terms used in Business Activity Descriptions

Title	Description
Access authorization	Whether or not an individual or system has the necessary permission to create, read, update, and/or delete information
Agency information	Descriptive information about a human services agency
Agency-unique person information	Information required, collected, stored by a single agency or program about a person; contrast with shared person information
Alert	Time-sensitive information, disseminated to individuals/ agencies who have a need to know; immediate action may be required
Approval	Approval that a referral service (recommendation) or treatment plan can be implemented
Business Organization contact information	How to reach an agency or service provider (e.g., mailing address, URL, email address, phone numbers)
Case	A set of information related to a particular human service for a particular client. A case is normally associated with a human services program. The term “case person” associates a person with a case.
Case Entry	The smallest unit of information entered on a case record. This may include situational information, service plan(s), enrollment status, case notes, client notifications, records of client contact, residence validation record, authorization for release of information, etc.
Case identifier	Data component used to uniquely identify a case (for subsequent retrieval, sharing, etc.)
Case notes	Observations that are recorded as part of a case file
Case Person Entry	The smallest unit of information entered on a case person record.
Case person identifier	Information element used to uniquely identify a case person.
Case person information	A generic term for all or part of the "case person"-related information (e.g., case identifier, person identifier, case member status, client group head flag, dates into and out of case, relationship information).
Case plan	Plan developed by worker to address client's needs; includes service recommendations
Case Plan approval	Approval of case plan by supervisor or other designated person
Case status	Agency-defined status
Case summary	Short synopsis of case, including status, possibly for sharing with other human service programs
Communications event	Information elements that characterize communications with a client, service provider, worker, program/agency staff, etc. Indicates the status of the communications attempt, what information was exchanged, how, and recommended follow-up.
Contractor	Business entity with reporting responsibility related to outcomes, and management of service provider results and performance associated to Case Plans and referrals.
Court information	Information generated in court system that is relevant to a case

Title	Description
Credentials	Authoritative documentation that states a provider is qualified to deliver a given service. Credentialing includes Licenses, Certifications, and restrictions associated with administration of services.
Documentation or Attachment?	Document, photo, or other item that is scanned or imported to provide an electronic addition to a record. Used as the object of the "record" action.
Eligibility result	Product of eligibility determination prior to approval; result of checking client or provider-related information against program/ agency criteria and rules/laws
Eligibility status	Whether client is eligible and authorized to receive services; specified per services.
Enrollment status	Whether client is enrolled in program; may be characterized by "states" such as : Active, Inactive, Suspended
Grievance details	Complaint about a decision. Initiates a request for appeal.
Grievance results	Product of grievance investigation; result of checking complaint against criteria and information used to reach prior results determination
Grievance status	Where a particular grievance investigation stands
Grievance tracking identifier	Information element used to uniquely identify a particular grievance filing.
Information needed	Specification that characterizes the information needed about a client, provider, etc. Usually used to request the information from a system or person.
Information pedigree	Information element(s) used to identify where information came from
Information pointer	Information element(s) used to identify where to find related information about the entity of interest
Inquirer contact information	How to reach the person or system that asked for information (e.g., email address, IP address)
Investigation decision	Decision/ recommendation resulting from investigation
Investigation guidance	Guidance or instruction provided to individuals involved case-related investigation
Investigation results	Findings from investigation
Memorandum of agreement	Written approval/authority to do something (in NHSIA context, usually share information).
Needs	Client conditions that require services. May be identified by client directly or jointly with worker/ provider through screening & assessment.
Notification/Alert/Tickler	Message sent to client/worker/provider/agency staff to notify them of information or event; in many cases information is time-sensitive or action is required
Object	Instance of a class or a parallel database term is a Record. An object receives a service.
Outreach contact	How to reach those who are the targets of an outreach effort (e.g.,

Title	Description
information	mailing addresses, email addresses, phone numbers, web sites)
Outreach content	Information provided to the general public about an agency, program, service, service provider, etc.
Outreach guidance	Program, agency, service provider guidance about who should be contacted for outreach activities. May include links to Web sites, distribution lists, registries, etc.
Performance indicator	Specific piece of information about client, services, etc. considered when evaluating program outcomes
Person alternate identifiers	Any of the identifiers that apply to a person (e.g., driver license, passport, SSN). In this context "other" means other than the "Person identifier" that is intended to be a unique identifier controlled by the human services community serving the person.
Person contact information	How to reach a person (e.g., mailing address, email address, phone numbers, via third party)
Person demographics	Basic information that characterizes the person (e.g., date of birth, sex, race, cultural background, mother's maiden name) and is not subject to frequent change. Likely to be used in matching algorithms. (Note: Person Identifier and Name are separate terms.)
Person education	History and status of a person's schooling, formal education, and training
Person employment history	Where person is employed, employment history
Person family and references	Relevant information about relatives, family history. May also include information about non-family members who serve as points of contact.
Person finances	Information related to person finances (e.g., income, bank accounts, debt).
Person health	Person health history information; may be stored in Electronic Health Record
Person identifier	Information element used to uniquely identify person
Person legal/ court history	Includes arrest history, court rulings, birth certificate, marriage, divorce, court order, etc. pertaining to person.
Person name	A phrase (typically first, middle, last) that constitutes the distinctive designation of a person. May also include current aliases and prior "also known as" information.
Program Rules	Guidance that an agency provides to workers to be considered in decisions, determinations, plans, etc. This guidance reflects relevant Federal & State laws and regulations.
Program/agency staff identifier	Information elements used to uniquely identify program/agency staff
Query	A request. Includes sufficient parameters to identify the entity about which information is being requested. For example, the query may be a request to support finding information about a person, a case, a service provider, a program, etc.
Query response	Answer generated in reaction to a request. Usually in response to

Title	Description
	"information needed" request.
Referral	Referring client to a service provider in order receive services; may be generated by caseworker or service provider
Risk assessment results	Results generated during case management risk assessment that characterize risk as a function of severity of client need and other contributing factors
Screening results	Results from case management screening and assessment; characterization of client status and needs
Service description	Descriptive information about a human service
Service history	Record of the services a client has received; include providers of services. This may be a subset of the client's full Case Portfolio, which provides access to all current and past case records. Details to be worked out.
Service history	Record of services received by a client in the past; part of client's case record
Service Plan	Service plan is created and executed by a Service Provider. Can be as a result of a referral or sub-set of a Case Plan.
Service provider contact information	How to reach a service provider (e.g., mailing address, URL, email address, phone numbers)
Service provider identifier	Information element(s) used to uniquely identify service provider
Service provider information	Descriptive information about a human services provider. Includes information about the prior delivery of services (e.g., quality of delivery).
Service recommendation	Caseworker or service provider recommendation that client should receive specified service; input to approve service activity
Source system	Identifier for an information system to be used as an authoritative source of information (e.g., about a person's identity, a service provider's credentials, a person's finances, etc.)
Verification results	The outcome from a comparison of the same information from two sources.
Worker contact information	How to reach a human services worker (e.g., mailing address, email address, phone numbers)
Worker identifier	Information element(s) used to identify Human services worker. This identifier can be associated with contracted staff working on behalf of Human Services.

Appendix C – NHSIA Business Process Mapping to Human Service Domains

Table C-1: Mapping of Contractor Management Business Area Processes to Human Service Domains (Preliminary)

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Contractor Management (CO)										
Contractor Information Management										
CO1	Establish Contractor Information	NHSIA	NHSIA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO2	Manage Contractor Information	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO3	Find Contractor Information	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Contractor Support										
CO4	Manage Contractor Communications	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
CO5	Perform Contractor Outreach	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO6	Manage Contractor Grievance and Appeal	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
Contract Management										
CO7	Produce Solicitation	MITA	NHSIA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
CO8	Award Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
CO9	Manage Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
C10	Close Out Contract	MITA	SAMHSA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD

Table C-2: Mapping of Operations Management Business Area Processes to Human Service Domains (Preliminary)

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Operations Management (OM)										
Claims Management										
OM1	Process Claims	NA	NHSIA	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	TBD
OM2	Provide Support for Federal Claims	NA	TBD	TBD	NHSIA	NHSIA	TBD	NHSIA	NHSIA	TBD
OM3	Develop Sliding Scale	NA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
OM4	Determine Client Contribution	NA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
Service Coordination Support										
OM5	Manage Worker Information	TBD	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
OM6	Manage Case Workload	TBD	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
OM7	Manage Data Freeze Requirements	TBD	TBD	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
OM8	Manage Wait List	NA	SAMHSA	TBD	NHSIA	NHSIA	TBD	TBD	TBD	TBD
OM9	Support Federal Reporting	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
OM9.1	Produce AFCARS Reports	NA	NA	NA	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
Information Services Management										
OM10	Manage User Access Privileges	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA

Table C-3: Mapping of Financial Management Business Area Processes to Human Service Domains (Preliminary)

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Financial Management (FM)										
Accounts Receivable Management										
FM1	Manage Provider Recoupment	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	TBD	NHSIA	NHSIA	NHSIA
FM2	Manage TPL Recovery	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM3	Manage Estate Recovery	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM4	Manage Drug Rebate	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM5	Manage Cost Settlement	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM6	Manage Accounts Receivable Information	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM7	Manage Accounts Receivable Funds	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM8	Prepare Member Premium Invoice	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
Accounts Payable Management										
FM12	Manage Premium Payment	MITA	NA	NA	NA	NA	NA	NA	NA	NA
FM13	Manage Member Premium Payment	MITA	NA	NA	NA	NA	NA	NA	NA	NA
FM14	Manage Capitation Payment	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM15	Manage Incentive Payments	MITA	SAMHSA	NA	NA	NA	NA	NA	NA	NA
FM16	Manage Accounts Payable Information	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
FM17	Manage Accounts Payable Disbursement	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
FM18	Manage 1099s	MITA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Fiscal Management										
FM19	Formulate Budget	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
FM20	Manage Budget Information	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
FM21	Manage Fund	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
FM23	Generate Fiscal Report	MITA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA

Table C-4: Mapping of Program Management Business Area Processes to Human Service Domains (Preliminary)

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Program Management										
QM1	Manage Program Policy	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
QM2	Manage Benefit Package Information	TBD	TBD	NA	NA	NA	NA	NA	NA	NA
QM3	Manage Reference Information	TBD	TBD	NA	NA	NA	NA	NA	NA	NA
QM4	Manage Rate Setting	TBD	TBD	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
QM5	Manage Performance Measures	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
QM6	Manage Disallowances Process	TBD	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
QM7	Initiate Accreditation Process	TBD	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
QM8	Manage Eligibility Criteria	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
QM9	Manage Program Information	NHSIA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
QM10	Perform Federally-Mandated Program Evaluation Reporting	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
QM11	Create Block Grant Applications	NA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
QM12	Perform Block Grant Reviews	NA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD
QM13	Manage Block Grants	NA	SAMHSA	TBD	TBD	TBD	TBD	TBD	TBD	TBD

**Table C-5: Mapping of Business Relationships Management
Business Area Processes
to Human Service Domains (Preliminary)**

ID	Process Name	Medicaid (MITA)	BH (SAMHSA)	Financial Assistance	Adoption & Foster Care	Child Care	Child Support Enforcement	Child Protection	Home Energy Assistance	Food/ Nutrition
Business Relationship Management										
BRM1	Establish Business Relationship	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
BRM2	Manage Business Relationship Communications	NA	SAMHSA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
BRM3	Manage Business Relationship Information	MITA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA	NHSIA
BRM4	Prepare Court Documents	NA	NA	TBD	NHSIA	NHSIA	NHSIA	NHSIA	TBD	TBD
BRM5	Manage Information Sharing with Court System	NA	NA	TBD	NHSIA	NHSIA	NHSIA	NHSIA	TBD	TBD
BRM6	Manage Information Sharing with Client Health Records	NA	NA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
BRM7	Manage Information Sharing with Juvenile Justice	NA	NA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
BRM8	Manage Information Sharing with State Vital Statistics	NA	NA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
BRM9	Manage Information Sharing with Department of Education	NA	NA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
BRM10	Manage Information Sharing with Mental Health and Substance Abuse	NA	NA	TBD	NHSIA	NHSIA	TBD	NHSIA	TBD	TBD
BRM11	Terminate Business Relationship	MITA	NHSIA	TBD	NHSIA	NHSIA	NHSIA	NHSIA	TBD	TBD

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Appendix D – NHSIA Performance Management Business Area

Introduction

NHSIA Performance Management represents a significant extension to MITA 3.0. The NHSIA Performance Management business area includes Compliance Management and Performance Evaluation.

- Compliance Management is the monitoring, auditing, and tracking conducted to determine necessity and appropriateness of services and quality of services, fraud and abuse, erroneous payments, and administrative abuses. Compliance Management pertains to both clients and service providers.
- Performance Evaluation includes impact evaluations, performance monitoring, process evaluations and cost evaluations (Section 2.3.5.3). Performance evaluation includes both business intelligence, i.e., how well the program is being managed and executed, and assessment of strategic outcomes. Strategic outcomes are concerned with anticipated change(s) in client population state relative to specific needs. Impact evaluations examine the correlation between services provided and clients' realized end-state. Performance management processes address the collection, analysis, and reporting of measures, metrics, indicators, and outcomes.
 - The term *measure* is used “for more concrete or objective attributes and *metric* for more abstract, higher-level, or somewhat subjective attributes.”⁵
 - Measures are used to approximate less tangible metrics. As stated previously, *strategic outcomes* are concerned with change(s) in client *population state* relative to specific needs.
 - *Target outcomes* are concerned with changes in the client *relative to needs*. Target outcomes are reflected in the client's case plan.
 - The term *indicator is* used in the process descriptions to refer to both measures and metrics. For the purposes of this document, indicators are data – either collected or determined from analysis - that aggregate and are used to ultimately assess outcomes.

Types of Performance Evaluations

NHSIA supports different types of evaluation⁶:

⁵ http://samate.nist.gov/index.php/Metrics_and_Measures.html

- Impact evaluations. Focus of impact evaluations is questions of causality. Did the program have its intended effects? If so, who was helped and what activities or characteristics of the program created the impact? Did the program have any unintended consequences, positive or negative? Impact evaluations are useful to policymakers.
- Performance monitoring. Performance monitoring provides information on key aspects of how a system or program is operating and the extent to which specified program objectives are being attained (e.g., numbers of youth served compared to target goals, reductions in school dropouts compared to target goals). Results from performance monitoring are used by service providers, funders, and policymakers to assess the program's performance and accomplishments.
- Process evaluations. Process evaluations answer questions about how the program operates and document the procedures and activities undertaken in service delivery. Such evaluations help identify problems faced in delivering services and strategies for overcoming these problems. Process evaluations are useful to practitioners and service providers in replicating or adapting program strategies.
- Cost evaluations. Cost evaluations address how much the program or program components cost, preferably in relation to alternative uses of the same resources and to the benefits being produced by the program. In the current fiscal environment, programs must expect to defend their costs against alternative uses.

Performance Evaluation – Background Discussion

Performance evaluations of human services programs are challenging because these evaluations address a wide variety of diverse problems and possible solutions. Programs and services change over time to meet changing needs. Evaluations may include multiple agencies and clients and information sharing between agencies has not always been seamless. Another important aspect of performance evaluations is the need for conclusions to be based on evidence supported by collected data and vetted metrics and measurers.

Develop the Evaluation Plan

The Evaluation Plan is built in preparation for the actual evaluation. The Evaluation Plan will lay out exactly how the evaluation will be conducted, what

⁶ [Evaluation of Strategies for Humans Services](#). The Urban Institute of Washington, D.C., Adele Harrell

questions need to be answered, and what data needs to be collected to conduct a comprehensive evaluation. The first step in an Evaluation Plan is to clarify the questions that need to be answered and define the audience of the evaluation findings. Desired outcomes of the program are defined in order to determine what data needs to be collected and when. The data collected must provide the evidence needed to verify the outcomes of the evaluation. It is important to identify what data is needed, when it should be collected, and how the evaluators will eventually gain access to this data to analyze it.

It is important to determine the period of time the evaluation will cover. For example, the evaluation could monitor performance for a one year period of time, or the evaluation could encompass the entire lifecycle of a client’s participation in a program, and even some time after the client has left the program. The data must support the time period of the evaluation. In some cases, the data may be quite old by the time it is needed for the evaluation. Old data is still relevant data and must be stored, archived, and accessible for use in evaluations.

The next step is to determine which type of evaluation needs to be conducted: Impact Evaluation, Performance Monitoring, Process Evaluation, or Cost Evaluation.

Impact evaluations are conducted to assess overall outcomes of programs. A framework for impact evaluations is depicted in Figure D–1. Given the emphasis on assessing program outcomes, the remainder of this discussion focuses on impact evaluations.

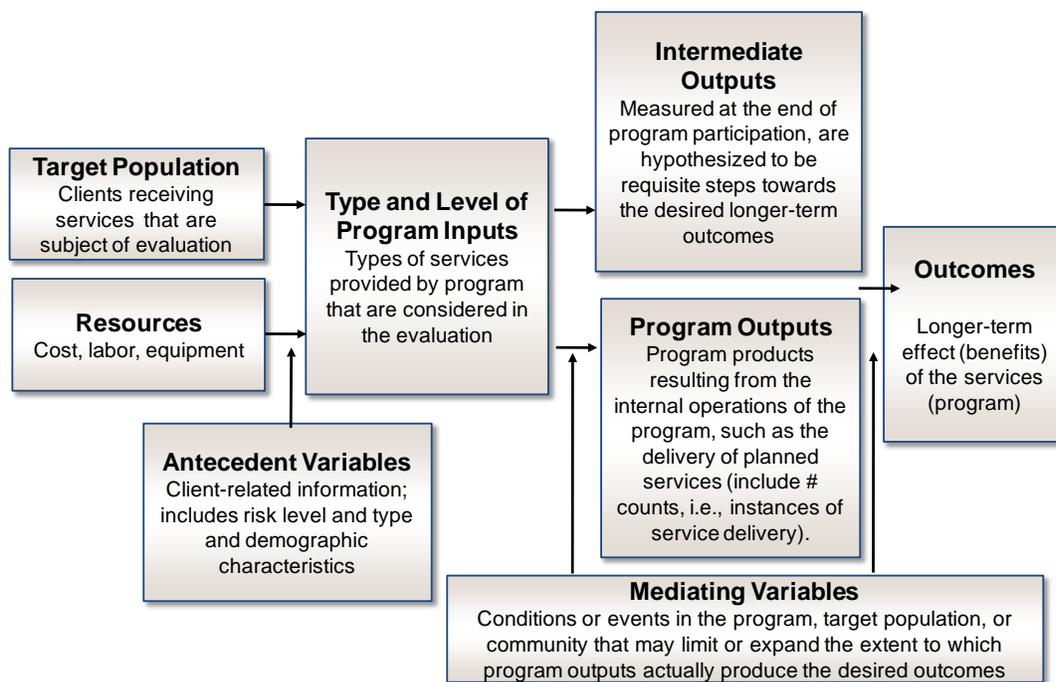


Figure D–1. NHSIA Framework for Impact Evaluations (based on Evaluation Strategies for Human Services)

After determining the type of evaluation required, the next step is to develop a logic model. A logic model is a diagram and text that describes and illustrates the causal relationships among program elements and the problems to be solved, thus defining the measurements of success. A framework of a logical model is depicted in Figure D–2.

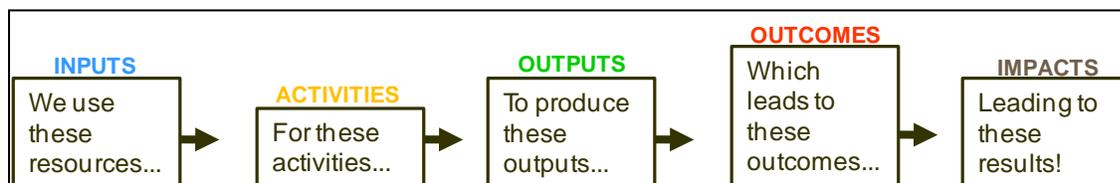


Figure D–2. Logic Model

The program is described in term of *program characteristics*. These include the population reached, the resources used, and the types and levels of service elements. *Inputs* are the resources used by the program to produce outputs and accomplish outcomes. *Activities* are operations or work processes through which inputs are mobilized to produce specific outputs. *Outputs* are the monitored results of activities and will be measured unambiguously with objective and numerical performance indicators. Outputs can be intermediate or long term and both must be accounted for. *Outcomes* are the desired effects and results which occur due to the actions of the activities, and the availability of the Outputs. *Outcomes* can be intermediate or long term and both must be accounted for. *Impacts* are the ultimate outcomes. They are the reasons why the program exists in the first place.

The logic model includes assumptions and external factors. Assumptions are the beliefs we have about the program, the people involved, and the context and the way we think the program will work. External factors are the environment in which the program exists and may include a variety of aspects (e.g., policies, conditions, or activities) that interact with and influence the program.

Execute the Evaluation

In human services programs, much data is collected about each client. For one program, a client may go through many different processes, each having their own data needs and collection processes. It is imperative for an evaluation to know what outcomes are expected and desired from the program, and then to identify the indicators and the subsequent data that can be used as metrics and measures. In Figure 2-11, a client participates in a program and goes through many different processes. Data is collected at various points and times during the client's participation in the program (illustrated by black dots). Much of this data is

expected to be collected through Service Management processes. Specifically, indicators that can support or disprove the desired outcomes of the program are collected (e.g., periods of employment of clients receiving TANF benefits). It is this data which must be identified and collected to use in the evaluation. Indicators (metrics and measures) are illustrated by the green stars in Figure D–3.

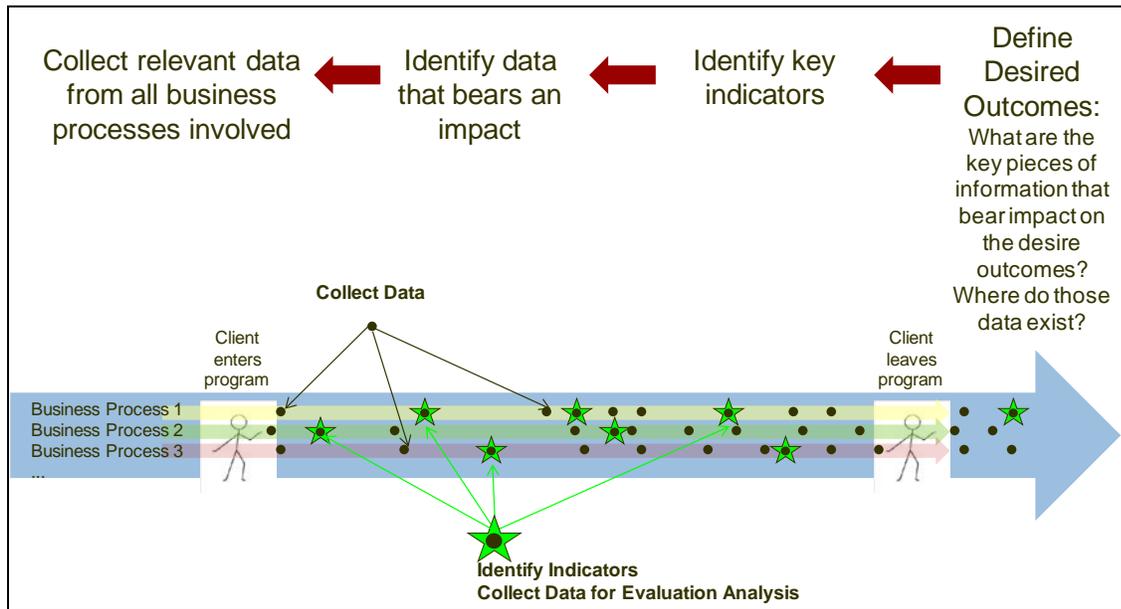


Figure D–3. Data is Collected in Many Different Processes Within the Program

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Appendix E – Accessibility Appendix

This section contains accessible versions of figures and tables in this document. Table and figure numbers that appear here correspond to versions that appear earlier in this document.

People:	Organizations	Systems for:
Assistor Auditor Case worker Client Community partner Legal staff Program/agency staff Researcher Service contractor Service provider The Public	Community-based agency Court Educational institution Financial institution Government agency Health institution Insurance company Legislative, regulatory body National association Other private company Research institution	Adoption/foster care Child care Child protection Child support Disability Domestic violence Education Employability Financial assistance Food/nutrition Health Housing & energy assistance Parenting/family planning Public health Substance abuse & mental health

First part of Figure 2-2 NHSIA Context and Scope

Technologies & Standards:	Access points:	Structures:
Architecture patterns Best practice Business intelligence Business rules and rules engine Cloud computing Customer relationship management Data standard (e.g., HL7, NIEM) Decision support Design pattern Fixed & mobile communications Internet and Web Networks Security Service-oriented Architecture (SOA) Workflow XML	At home At work In call centers In clinical settings In field/mobile systems In office-based service-related systems In schools	Agency Person Record Case Person Record Case Record Confidentiality and Privacy Authorization Electronic Case File Case Record Electronic Health Record (EHR) Health Information Exchange (HIE) Master Person Index (MPI) Medicaid Information Technology Architecture (MITA)-derived structures Personal Health Record (PHR) Service Provider Registry Shared Person Record

Second part of Figure 2-2 NHSIA Context and Scope

Information about:	Actions:
Account, payment Association Benefit Business (provider, contractor, etc.) Case Credential Document Facility Finances Group Job Legal action Metrics Organization Outcome Person Placement Population Program Resource capacity Rule, policy, regulation, law Service Status System Workflow	Apply for Approve Archive Authorize Bill Collaborate Delete Determine/screen Develop Educate Freeze Identify and select Initiate Interview Manage Monitor/assess/detect Notify/communicate Pay Plan Record Refer Register Report Request Research/analyze Respond Retrieve Review Schedule/coordinate Share Trigger Verify

Third part of Figure 2-2 NHSIA Context and Scope