Interoperability Plan

Prepared by California Health and Human Services Agency
Office of Systems Integration

State Systems Interoperability and Integration Project

2013

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1. Executive Summary

> *Interoperable systems share information and processes to efficiently deliver integrated services to the client community. The term "Interoperability" is sometimes used or refers to the ability of two or more systems or components to exchange information and to use the information to make better decisions. The term is often used in a technical engineering sense and also in a broader sense, taking into account social, political, and organizational factors that impact performance.*

California received a one-year grant from the Administration for Children and Families (ACF) as part of the "State Systems Interoperability and Integration Projects" grant opportunity. Funding for the grants came from the Office of Management and Budget (OMB) Partnership Fund for Program Integrity Innovation. Under the leadership of the California Health and Human Services Agency (CHHS) and managed by the Office of Systems Integration (OSI), the ***State's Systems Interoperability and Integration Project*** (SSIIP) created an interoperability plan (this document) and began to create a community of practice that will serve our clients and beneficiaries optimally and cost-efficiently by reducing and/or eliminating information silos and redundant information retrieval. This Interoperability Plan provides the "big picture" vision for interoperability for health and human services in the state. It identifies the top-priority opportunities for achieving interoperability by integrating processes and systems and improving information sharing. The plan focuses on changes that can be initiated within five years and implemented within ten years.

The OSI established a Project Team that conducted research to identify the current information management landscape and investigated data sharing and integration opportunities. The Team was assisted by consultants from ***Stewards of Change*** and ***Alexan International*** and was led by a Project Director and Project Steering Committee. The project team used the Stewards of Change Human Services 2.0 methodology to guide the development of this plan. That methodology identifies ten change drivers that have been proven as essential for building interoperability in jurisdictions across the nation. Four of the drivers require particular attention during the critical start-up period: Governance, Information Technology, Legal (confidentiality), and Organizational Change Management.

As part of this effort, the Project Team convened health and human services stakeholders across multiple domains from the public and private sectors for two, multiple day Health and Human Services Interoperability Symposia to collaboratively develop the SSIIP Plan. The first symposium was held in May, 2013 and the second symposium was held in September, 2013. One of the outcomes from the May Symposium was formation of committees, represented by a mix of state and county professionals. Each of the committees focused on one of the four critical drivers for interoperability. The committees worked over the summer, and the chair of each committee presented a report at the September symposium. At the second symposium attendees reviewed the committee findings, provided feedback for the interoperability roadmap and participated in activities to synthesize the learning into a cohesive and comprehensive plan.

Another part of the effort included a Proof of Concept (POC) Demonstration to illustrate concrete examples of electronic data sharing. The POC demonstration focused on children and youth in foster care who have been and will be prescribed psychotropic medication. The POC Demonstration showed how replacing the current fragmented process of information sharing can be re-tooled into an electronic record sharing system that provides decision makers such as social workers, judges, parents and foster

parents, and prescribing doctors with accurate and timely data which protects privacy and confidentiality. This would ultimately improve services to children and youth in foster care.

The following four sections present the findings of each of the work groups.

Governance Committee Results

The Governance Committee developed an overarching governance framework, and supporting work products, to guide decision-making, develop operating procedures and enable collaboration that promote interoperability and data-exchange across CHHS Agency. The committee utilized a Proof of Concept use case (psychotropic medication for children in foster care) as a proxy to test the efficacy of governance flow, structure and outcomes.

The Governance Model illustrates the process for making decisions at an Agency level based on the coordinated interaction of three components: decision structures, operating procedures and collaboration enablers.

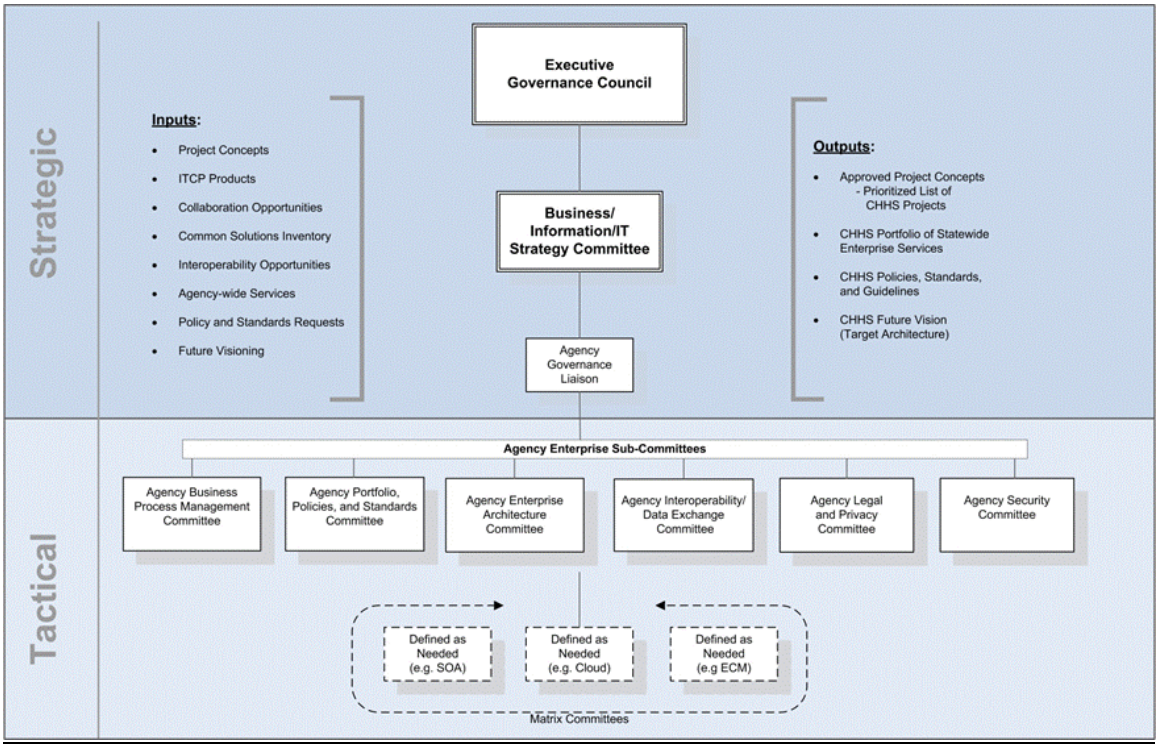


Figure 1 Governance Model

The Governance Committee recommended that to further interoperability and data-exchange amongst state and county partners, the CHHS Agency should implement and mature the following framework and governance deliverables:

- Governance Model
- Roles and Responsibility Documentation

- Generic Process Flow/Narrative
- Prescription Medication Approval Proof of Concept (POC); Process Flow and Process Narrative

Over the next fiscal year the CHHS Agency plans to take necessary steps to successfully implement the governance framework and deliverables outlined in these recommendations. This provides vital steps in establishing beneficial approval, standardization and communication processes that span across multiple CHHS offices, departments, and other entities.

Information Technology Committee Results

The IT Committee was charged to develop technology-related recommendations for the Systems Interoperability and Integration Plan focused on:

1. Enterprise architecture;
2. IT initiatives to be leveraged for interoperability; and
3. Top priorities for data sharing in CHHS that can realistically be initiated within the next 5 years and implemented within the next 10 years.

As the committee looks to the future (To-Be) state of the enterprise architecture, the members recommended adoption of this draft vision statement:

> *Our To-Be architecture will improve the delivery and outcome of health and human services in California. It will be consistent with MITA (Medicaid Information Technology Architecture), NHSIA (National Human Services Interoperability Architecture), and related information sharing standards (NIEM and HL7).*

At the September Symposium, it was announced that CHHS endorses the adoption of MITA, NHSIA, and related information sharing standards.

The IT Committee defined fundamental ideas and terminology, identified major elements of the To-Be architecture, and made specific enterprise architecture recommendations. The recommendations include:

- Adopt national standards
- Leaders support key concepts
- Consider adopting standards and concepts at every opportunity
- Build on lessons learned
- Integrate health and human services architectures
- Implement actions for specific initiatives/systems
- Focus on high-priority common processes/capabilities
- Focus on high-priority information exchanges
- Continue collaboration.

In each case, the committee proposed a timeline of near, medium, and long-term activities to accomplish the recommendation.

The committee identified and discussed potential barriers to implementing the recommendations. They were divided into five categories: culture; priorities; funding/contracting; leadership; and privacy and security. Participants also identified ongoing / upcoming initiatives that should be leveraged to inject or extend interoperability objectives and to use resources effectively.

The committee suggested these are the highest-priority activities:

- Education and outreach
- Work on foundational capabilities
    - Identity management and access control
    - Confidentiality and privacy agreements
    - Master person index
- Continue collaboration
- Build on lessons learned
- Gain executive buy-in

Legal and Confidentiality Committee Results

The Legal and Confidentiality Committee drafted a Privacy and Confidentiality Framework to address and help overcome barriers to sharing or exchanging necessary and relevant data/information in the administration of public programs under the purview of the California Health and Human Services Agency (CHHS). In the course of the committee's work on the Framework, members also:

1. Drafted key elements for interagency data sharing agreements;
2. Developed and administered an Interoperability Survey to identify specific areas in which there have been denials of, or barriers to, sharing or exchanging data/information, aka interoperability; and
3. Reviewed and provided feedback on the Governance Model structure and roles/responsibilities related to privacy and confidentiality.

The ***Privacy and Confidentiality Framework*** is a formal process where subject matter and technology experts examine relevant statutes and regulations. The outcome of this analysis will assist developing CHHS protocols, policies and standards to remove or modify existing legal barriers to data sharing while ensuring compliance with federal and state confidentiality laws/regulations. To better exhibit concrete examples of legal barriers inhibiting data/information sharing, the committee developed an Interoperability Survey to help the initial inventory of program areas that will need to be addressed to enable "legally-permissible" system interoperability. This process of reviewing and evaluating specific issues will continue as part of the newly envisioned CHHS Governance Model, where the SSIIP Legal and Confidentiality Committee will yield its role to the newly formed Agency Legal and Privacy Committee. The Agency Legal and Privacy Committee will make recommendations to the Business/Information/IT Strategy Committee that will clearly identify the barriers, requirements, and suggested resolutions.

Organizational Change Management Committee Results

The Organizational Change Management (OCM) Committee developed a repeatable change management process to be incorporated into the California's State Systems Interoperability and Integration Project (SSIIP) Plan. The change management roadmap provides guidance and templates to

address the challenges that departments within the California Health and Human Services Agency (CHHS) face with any change, in this case sharing electronic data. The framework proposed in the original grant proposal – ADKAR – offers insights for change that include creating awareness for the need to change, the desire to change, knowledge of how to change, the ability to implement change, and finally reinforcement to keep change in place. The change management process described in this section of the SSIIP Plan uses the Human Services 2.0[1] (HS 2.0) Theory of Change methodology as the underlying framework to support change. This model addresses the concerns identified in the ADKAR model, and utilizes insights derived from generous input and feedback from hundreds of passionate leaders and practitioners of health and human services systems around the country. The OCM Roadmap is illustrated below.

Figure 2 Organizational Change Management Roadmap

The OCM approach is intended to be customizable for each department within CHHS and includes:

1. **Stakeholder Analysis** – identify key individuals, assess their stance on interoperability, and cultivate champions to promote, advocate, and support changes needed to move interoperability forward
2. **Define Communication Plan** – utilize stakeholder input to develop and deliver communication strategies

[1] Stewards of Change Human Services 2.0 Theory of Change methodology is explained: http://stewardsofchange.com/how-we-do-it/pages/human-services-2.aspx

3. **Identify Risk and Risk Mitigation Strategies** – administer HS2.0 Readiness for Change Survey; analyze results to identify risks and inform effective approaches to risk mitigation; determine desired behavior changes and provide supports to achieve.
4. **Develop Scorecard** – after identifying high level goals and hoped for outcomes, identify metrics to measure progress toward the desired outcomes; establish baseline and monitor.

The OCM Committee focused on creating a process for change, and as part of the roadmap produced two products that can be utilized directly: 1) a profile of desired characteristics of a champion and responsibilities of champions; and 2) a dashboard with metrics to measure progress towards organizational change.

Proof of Concept Demonstration Results

The POC demonstrated interoperability at the state and local levels and provided a template for future expansion across all applicable health and human services programs and systems. The POC included these aspects:

- Problem Statement
- Psychotropic Medication Authorization (PMA) Process (presented at Symposium #1)
- Request for Demonstration
- Solutions developed by vendors at no cost to the state
- Vendor Demonstrations (at Symposium #2)

California Interoperability Roadmap

A key deliverable from the project is the California Interoperability Roadmap (CIR). It provides a comprehensive and practical approach for advancing the state's agenda to design, build, implement and maintain solutions that provide coordinated, appropriate and affordable services to clients in the most efficient and effective manner across the CHHS enterprise. The CIR reflects key findings and recommendations derived from the four subcommittees' efforts. To accomplish the recommendations, each committee identified actions to be completed in the near term (0-6 months), medium term (6 -24 months), and longer term (beyond 2 years). The committee's reports were presented and discussed during the September symposium. The symposium discussions corroborated the recommendations from the committees and also identified some new ideas which are included in a "synthesis" section of the roadmap. The synthesis topics include:

- Leadership is Critical
- Communications and Education Are Essential to Ensure Adoption and a Common Understanding
- Adopting National Standards Will Encourage System Integration and Interoperability
- Funding and Procurement Procedures Need to Incorporate Language to drive IT Standards and Enable Reuse
- Culture Change is the Foundation for Realizing the Promise of Interoperability
- Focusing on Both Health and Human Services Is Necessary to Improve Outcomes and Efficiency
- Workforce Development Is Necessary to Achieve Interoperability

The Roadmap merges the proposed actions from all four critical interoperability drivers and the synthesis topics onto a single page.

Overview: California State Systems Integration and Interoperability Roadmap

	0 - 6 Months	6 – 24 Months	Beyond 2 Years
 Governance	• Begin formalization of strategic level of governance model. • Begin process for staffing governance liaison position.	• Establish and staff major elements of the governance model • Draft governance policies, processes, and procedures. • Establish repositories. • Implement governance.	• Fully implement and follow governance across CHHS and counties. • Formalize mature governance policies, processes, procedures, and repositories.
 Legal and Confidentiality	• Complete and compile survey on barriers to info sharing. Start analysis. • Finalize the Privacy and Confidentiality Framework.	• Complete analysis of survey results. • Prioritize/escalate through governance model and Privacy and Confidentiality Framework. • Categorize issues into buckets for action.	• Work with stakeholders to establish protocols for data./info sharing under formal agreements..
 Information Technology	• Education and outreach re standards. • Identify lessons learned and document a process for collecting them. • Look for synergies across enterprise architectures and plan integration approach. • Influence CWS-NS procurement. • Implement early wins. • Focus on core/foundational capabilities and identify related info exchanges. • Enlist sponsors and support; establish collaboration forum; determine how to coordinate activities.	• Assess active projects and review plans in governance process. • Influence CA Dept of Technology re standards. • Determine how to apply lessons learned and document a planning process to incorporate. • Adjust and integrate enterprise architectures. • Test architectures through governance. • Establish common solution for info security. • Implement "Blue Button". • Identify data sharing needs. • Build on the core capabilities. • Build on lessons learned. • Adopt standard data dictionary. • Collaborate!	• Plan for full implementation of key concepts and standards. • Follow mature governance processes. • State and county systems integrate with intrastate HIE. • Integrate consortia systems SAWS. • Build on the core and initial capabilities. • Collaborate!
 Organizational Change Management	• Identify key stakeholders and assess stance towards interoperability. • Cultivate champions to communicate and market interoperability. • Initiate development of personas to deepen understanding. • Develop communications plan.	• Adopt and track performance metrics. • Identify and prioritize behavior change needed. • Evaluate infrastructure and adjust.	• Monitor progress. • Continue to evaluate and develop personas to reflect evolving system of delivery. • Continue evaluation of organizational infrastructure.
 Synthesis	• Define common vision for interoperability. • Identify and recognize champions. • Develop communications plan. • Refine/develop materials to foster cultural changes to adopt client-centered approach. • Develop detailed implementation plan. • Assess skill gaps. • Disseminate info re national standards CA has adopted.	• Establish funding strategy and tactics. • Identify security standards and protocols. • Identify approach for interoperability and adopting standards in all major system changes and procurements. • Champion culture change. • Develop workforce development plan and begin training.	• Measure progress towards client-centric approach. • Confirm plan for adopting standards. • Make training available for workforce development. • Initiate work on other change drivers (customer focus; open and inclusive processes; innovative funding; public and political will; data and performance measurement systems; bridging service silos)

Figure 3 Merged Interoperability Roadmap

California Interoperability Roadmap (CIR) starts with tangible actions that can quickly demonstrate value across multiple departments through governance, legal, technology and organizational change management domains. These successes can be leveraged to build support and momentum for the larger and longer-term integration and interoperability initiatives. Practically speaking, CHHS could leverage the momentum and learning from the psychotropic medication approval process demonstrated in the Proof of Concept to share information from multiple sources with multiple stakeholders and across multiple programs.

One key take away from the second symposium is that implementation can and should move forward now even though there is no formal office of interoperability, no new resources allocated or any formal job descriptions provided. Shell Culp, Chief Deputy Director, California Office of System Integration, our Project Sponsor, empowered participants to take action *today.* The OSI Deputy Director encouraged attendees to utilize their authority, expertise and resources to take action toward interoperability and not wait for a top-down directive. An underlying assumption is that interoperability is as much about culture change as it is about technical change. People were encouraged to begin acting as though interoperability is the way forward. It is unlikely that in the short term a formal Interoperability Office will be established or new resources will be dedicated. Rather, people should begin to take steps to implement interoperability within their own departments using authority already vested.

The California Interoperability Roadmap is more than the sum of the individual parts. It represents the synergistic value of the collective action of the four committees and 150+ symposia participants. The work of each specific committee was essential and has been integrated with the others to create a comprehensive plan. Realizing the value will be accomplished in part through ongoing interactions among the committees, departments and people who are or will be involved with implementing the recommendations. To move beyond 'silo' thinking and behaviors, it will be critical to create opportunities to experience cross-organizational thinking, planning and collaboration on a regular basis.

This Interoperability Roadmap provides the State of California with clear guidance about how to proceed over the short, medium and long-term. The State has an unprecedented opportunity *today* to forge an innovative, outcomes-based, integrated path forward which will benefit people of California and provide guidance and inspiration to the rest of the nation pursuing health and human services interoperability.

2 California Interoperability Roadmap

2.1 Introduction

The California Interoperability Roadmap (CIR) provides a comprehensive and practical approach for advancing the state's agenda to design, build, implement and maintain solutions that provide coordinated, appropriate and affordable services to clients in the most efficient and effective manner across the CHHS enterprise. The CIR recognizes key national and state trends, summarized below, that are driving interoperability. These include adoption of national enterprise architecture and data exchange standards, implementation of repeatable processes and reusable services. It also takes into consideration the impact of federal and state laws and policy initiatives that are shaping the future infrastructure and foundation of our health care and human service programs.

This section provides a high level overview and synthesis of the key concepts and recommendations so that readers can quickly understand the overall direction and recommended action steps to move this initiative forward. These key findings and recommendations were derived from four separate committees that were formed at the first Symposium in May and that operated over the summer months. The workgroups included 1) Governance, 2) Legal and Confidentiality, 3) Technology, and 4) Organizational Change Management. Each of the four workgroup committees prepared in-depth reports which are presented in the subsequent sections. The committee's reports were presented and discussed during the second Symposium (September 23rd and 24th). The symposium was designed to review the committee reports and elicit feedback. Many of the suggestions corroborated recommendations from the committees but also identified some new ideas which are included in a synthesis section later in this section. Decisions about whether to incorporate these new recommendations into the plan will be made by leadership when implementation begins.

2.2 Background and Context

The need for an actionable Roadmap has been recognized by leadership across HHS given the enormous scope, scale, cost and complexity of providing health and human services to California's 38+ million people. Publishing this roadmap at this time is opportune given the rapidly changing landscape at the federal, state and local levels, which is being driven in part by the Patient Protection and Affordable Care Act (PPACA)[2] and its time limited access to funding and administrative flexibility. Other significant factors and initiatives in California are also driving the need for a consolidated view of the road ahead for CHHS. These changes are prompting adoption of next generation technology, promoting national standards and solutions designed to deliver streamlined and coordinated services. The intended outcomes of these changes include more efficient operations, more effective ways to combat fraud, waste and abuse and ultimately better data and analytics from which to make evidence-based decisions to improve client outcomes and agency performance.

[2] http://www.hhs.gov/opa/affordable-care-act/index.html

The Office of Management and Budget (OMB) recently released a memorandum[3] (July 26, 2013) to all federal agencies that underscores the expectation for greater use of data and evidence to inform policy and decision making when proposing or justifying investments in government programs. Beginning in 2015, Federal program budgets will be evaluated in part on their capacity to incorporate evidence-based research and outcomes. This trend will continue to grow and will quickly impact states as the expectation for more accountability and effective use of public funds increases while service demands continue to increase and budgets remain flat or decline. This evidence-based orientation is a logical outgrowth and is consistent with industry trends that are building the models, tools, infrastructure and analytical capabilities to address the complex and interconnected needs of clients that receive services from multiple programs.

Over the past seven years, there have been a series of federal initiatives and laws enacted that are establishing a national information technology infrastructure. Funding from the 2009 American Recovery and Reinvestment Act and The Health Information Technology for Economic and Clinical Health (ARRA/HITECH) accelerated the development of regional health information exchange networks along with adoption of electronic health records. These programs, while still being implemented today, are establishing the infrastructure foundation to capture information and share it more readily, with appropriate consideration for confidentiality and privacy rules.

The passage and implementation of the PPACA in 2010 generated additional momentum towards interoperability including seven specific conditions and standards for obtaining enhanced federal reimbursement at 90% for design, development and implementation of new Medicaid eligibility information systems. (Condition seven stipulates interoperability with human service programs to be eligible for 90/10 funding.) These standards identify critical elements such as alignment to and advancing maturity in the Medicaid Information Technology Architecture (MITA) maturity; service oriented architecture; reusable services; and data exchange models that will be required for states to qualify for federal funding. The intended impact for states and other jurisdictions will be to increase the ability to connect systems so they can capture and exchange critical information about services, providers and operations to support data driven, evidence-based practice. Furthermore, OMB has created the incentive to expand these improvements across more than just Medicaid programs by allowing a time-limited exception to the cost allocation rules.

Within the human services at the federal level similar innovations have been supported including standards and models such as the National Human Services Interoperability Architecture (NHSIA) and the National information Exchange Model (NIEM) domains for human services and health. The NHSIA builds upon and expands previously developed architectural models that are supporting modernization within the health care realm, specifically MITA. These and other initiatives are establishing a common way to build and exchange information which will help establish the foundation for changing the way states, counties, cities, providers, and nonprofits design, build and govern their health and human services infrastructure and systems in the future.

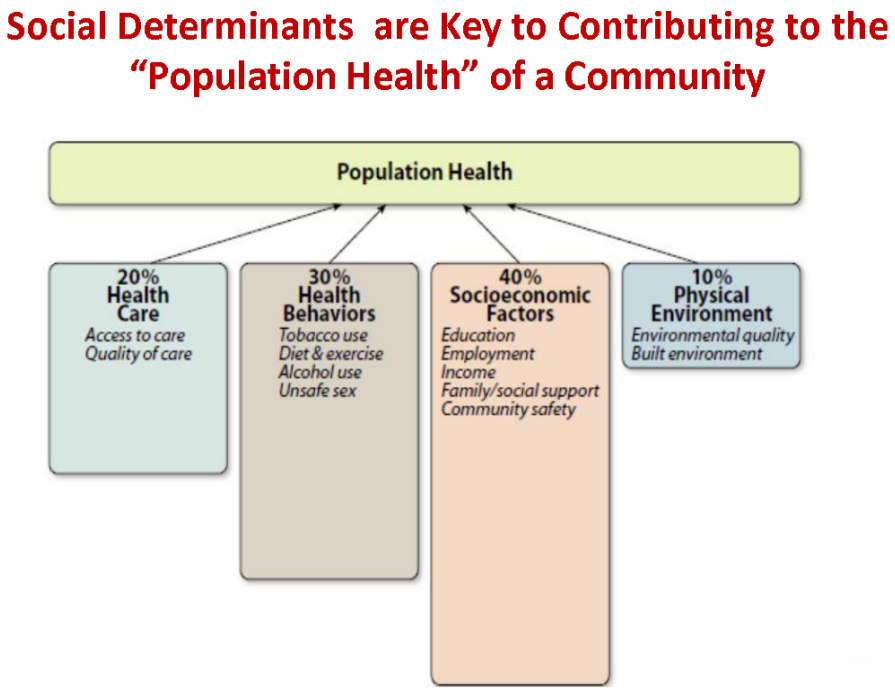
It is expected that after the new federally mandated health insurance marketplaces begin operating in 2014, California will be in a better position to focus attention on linking disparate systems. There will be

[3] http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-16.pdf

an opportunity to build upon new technology such as the eligibility and enrollment systems that have been recently constructed. Enabled by the new IT infrastructure and driven by the increasing demand for accountability, California will be in a strong position to focus resources on connecting system silos. This integrated ecosystem will enable systems to generate the type of information envisioned and required by evidence-based practice.

It is also important to ensure that the CIR incorporates the broad spectrum of factors that contribute to health and well-being. Population health studies have shown that traditional healthcare services alone account for only 20 percent of actual health outcomes. The remaining variance is shaped by health behaviors (up to 30 percent), socioeconomic factors (up to 40 percent) and physical environmental factors (up to 10 percent).[4] Recognizing the importance of social determinants for the health and wellbeing of individuals underscores the importance of building systems that are designed to cut across silos, share information and generate data for effective decision making.

Figure 4 Social Determinants



[4] Minnesota ICSI, based on University of Wisconsin Analysis in ACO and community health white paper. https://www.icsi.org/health_initiatives/accountable_health/

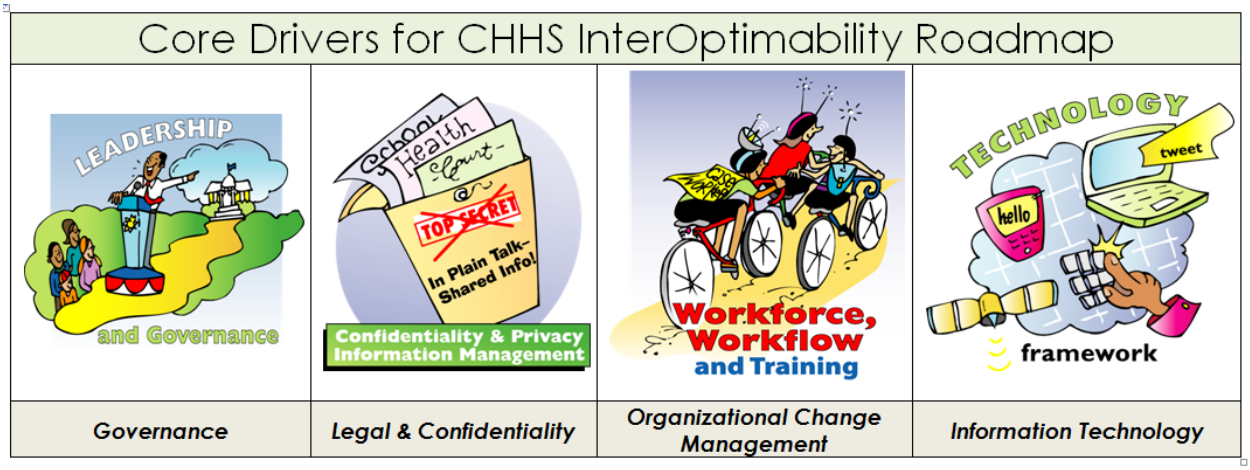
The Interoperability Roadmap, summarized below and detailed in subsequent sections, recognizes the changing paradigm and provides a concrete plan to guide CHHS on its data sharing, program integration and interoperability journey over the next ten years.

2.3 Overview

The CIR recognizes that multiple streams of work should occur simultaneously and sequentially to establish the appropriate infrastructure, frameworks and operating models to build awareness, operating processes, legal frameworks and a supportive culture committed to and capable of championing integration and interoperability across CHHS.

The Stewards of Change Human Services 2.0 methodology, which was used to guide the development of the CIR, identifies ten change drivers that have been proven as essential for building interoperability in jurisdictions across the nation. While leadership should address all ten drivers to track, monitor and refine progress over time, four of the drivers require particular attention during the critical start-up period. One of the outcomes from the May 2013 Symposium was formation of committees, represented by a mix of state and county professionals and focused on the four most critical drivers for interoperability. The other six drivers, summarized in section 3.5 in this document, are woven into the California Interoperability Roadmap (CIR) and take on greater importance over time once the foundation becomes established. These will contribute to realizing the goals over the next decade.

Figure 5 Core Drivers for Interoperability Roadmap



1. **Governance & Leadership** are intimately linked to the organization's ultimate mission and vision. Governance provides the policies, systems and decisions that establish that vision, authority and responsibility, and affects how initiatives are measured. Leadership guides the implementation and strategies provided by the governance structure.
2. **Information Technology** encompasses all hardware and software architecture, standards, systems and functionality that enable the organization's IT processes, including data collection, storage and sharing.
3. **Confidentiality and Privacy** addresses an organization's need to store, use and share regulated information. It covers policies and practices about safeguarding sensitive data and maintaining confidentiality within legal bounds. It also encompasses employee knowledge, beliefs and attitudes about the policies and boundaries of information sharing.

4. **Organizational Change Management (OCM)**, which is encompassed by the **Workforce, Workflow and Training driver,** relates to the systems and supports necessary for workers to do their jobs effectively, while meeting responsibilities to both the organization and its customers. It also encompasses worker satisfaction, retention and culture. The OCM discipline supports the organizational practices regarding the people with whom the organization relies upon and interacts with.

As described in the *Executive Summary* of this report, four working committees were established that concentrated on these four initial change drivers. Together, the committees' efforts began to establish the framework, processes, and culture needed to realize the overall vision of serving clients holistically, seamlessly and efficiently regardless of where they enter the system. Each of the committees identified actions that could be initiated in the first six months of implementation; 6 – 24 months; and beyond 2 years. Overall, the time horizon for interoperability as established by the state is to initiate the most promising data sharing projects within the next five years and implement them within ten years. These timelines and actions are identified in the CIR.

At the second state-wide symposium in September 2013, each of the four committees presented their key findings and recommendations. These were discussed by participants and their feedback was synthesized into additional recommendations which have been summarized in section 5 Synthesis and Conclusions. Consensus topics have been incorporated into the overall roadmap and others will be included for future consideration by leadership.

2.4 Interoperability Roadmap

At the heart of the Interoperability Roadmap is the recognition that creating customer-centric solutions is paramount to developing a more efficient and effective system of systems. It is well known that HHS programs operate in silos and often function independently of one another. As a result only a thin slice of the client's overall needs are addressed. Moreover, it is easy to get confused and/or distracted by the complex technical aspects of interoperability. This roadmap outlines an achievable path to interoperability so that California can begin to operate more holistically regarding the people being served by the spectrum of programs being offered.

One important outcome from this planning process and the overall roadmap effort is to instill a common understanding across the CHHS workforce that programs are often serving the same clients who have a complex set of needs, strengths, hopes and relationships. Clients don't care about how systems are designed or operate – they just want it to be easy to obtain the services they need, when and where they need them. They don't want to know how a power plant works – they simply want to flip a switch and have the light come on.

Table 1 below provides an 'at a glance' view of the key actions that are recommended at this point in time. We have organized the priority actions by time period and have highest confidence in the nearest term recommendations (0 – 6 months). Longer term actions will undoubtedly change as new learning occurs. These core infrastructure building activities will be critical for creating the framework, processes, agreements and baseline readiness assessment upon which the longer term initiative will be constructed.

Overview: California State Systems Integration and Interoperability Roadmap

	0 - 6 Months	6 – 24 Months	Beyond 2 Years
 Governance	• Begin formalization of strategic level of governance model. • Begin process for staffing governance liaison position.	• Establish and staff major elements of the governance model • Draft governance policies, processes, and procedures. • Establish repositories. • Implement governance.	• Fully implement and follow governance across CHHS and counties. • Formalize mature governance policies, processes, procedures, and repositories.
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Table 1 California State Systems Integration and Interoperability Roadmap

One key take away from the second symposium is that implementation can and should move forward now even though there is no formal office of interoperability, no new resources allocated or any formal job descriptions provided. Shell Culp, Chief Deputy Director, California Office of System Integration, our Project Sponsor, empowered participants to take action *today.* The OSI Deputy Director encouraged attendees to utilize their authority, expertise and resources to take action toward interoperability and not wait for a top-down directive. An underlying assumption is that interoperability is as much about culture change as it is about technical change. People were encouraged to begin acting as though interoperability is the way forward. It is unlikely that in the short term a formal Interoperability Office will be established or new resources will be dedicated. Rather, people should begin to take steps to implement interoperability within their own departments using authority already vested.

The California Interoperability Roadmap (CIR) is more than the sum of the individual parts. It represents the synergistic value of the collective action of the four committees. The work of each specific committee was essential and has been integrated and blended with the others to create a comprehensive plan. Realizing the value will be accomplished in part through ongoing interactions among the committees, departments and people who are or will be involved with implementing the recommendations. To move beyond 'silo' thinking and behaviors, it will be critical to create opportunities to experience cross-organizational thinking, planning and collaboration on a regular basis. Using the Persona approach is one way to build horizontal and vertical understanding and also the cultural conditions necessary to think broadly about the whole, rather than only the individual parts.

Initial steps to implement the CIR have already been initiated:

- The Governance model has already been vetted and authorized by the Office of the Secretary. Efforts are currently underway to identify staff for two positions to begin implementation of Governance priorities on an expedited basis. Governance will provide the forum, structure and processes for decision making so that recommendations can be presented, reviewed, vetted and decisions made in a transparent, timely and informed fashion. The proposed governance structure outlined below, and detailed Figure 7, page 34, offers a model to identify policies, systems, and decisions that establish authority and responsibility for sustained interoperability among offices and departments within California Health and Human Services (CHHS).

- The Technology committee will start implementing technology recommendations including enterprise architecture, standards, and top priority information technology initiatives for data sharing in CHHS. One other important notification that was reiterated by OSI leadership at the Symposium is that the Medicaid Information Technology Architecture (MITA), National Human Services Interoperability Architecture (NHSIA), and related information sharing standards have been adopted by the State as the Enterprise Architecture models that will be used moving forward.

  Attention will be directed to identifying near term IT projects that can demonstrate success and value for interoperability. The technology initiatives will be consistent with state level reference models, standards and processes that are consistent with core principles outlined in the work group and being adopted across the government. Building case studies that incorporate multiple programs and systems will be instrumental for building organizational awareness and support for larger and more complex IT projects, and ultimately the success of interoperability overall.

- The Legal and Confidentiality committee has also begun some initial implementation activities with current staff by eliciting feedback from a survey about specific barriers to information sharing. These findings will be incorporated into the ongoing committee work. Once implementation begins the committee will finalize a written Privacy and Confidentiality Framework and ideally coordinate activities with Governance, once operational. It will develop processes to establish short, medium, and long-term protocols for information and data sharing among departments, agencies, counties, service providers, and clients. This legal framework will be woven into the Governance Council over time and will provide a forum and process for addressing legal issues concerning information sharing questions which are at the core of integration and interoperability.

- The Organizational Change Management committee presented their findings and outlined specific recommendations. In reality, the two symposia and the working committees can be considered OCM activities by virtue of the fact that new ways of working together have been implemented, new relationships were established, expectations clarified, and a common set of models, tools and language has been shared broadly across county, state, association and not-for-profit participants. There was wide spread agreement to incorporate formal OCM activities throughout the interoperability initiative. OCM will undergird and support the larger implementation effort over the length of the initiative but it will be procured separately. The activities envisioned under OCM will build stakeholder engagement, identify project champions, create and implement a communication plan, mitigate risk, provide training and provide a performance measurement approach that will track and monitor progress over time.

The CIR envisions substantial progress within the first 6 months of startup. By the end of the first year the basic infrastructure, operational procedures, baseline assessments and communications platforms could be operational. Based on initial progress, the timing of subsequent phases would be adjusted. Once these core processes are established and projects are underway the Roadmap envisions adding focus on the longer-term success drivers. The other six drivers will require leadership attention due to their strategic nature. They address areas including legislation, funding, policy, data and performance metrics, public will and the end-consumer experience.

The following section outlines the key recommendations from each working committee. See section 5 Synthesis and Conclusions for 'synthesis' items. These were developed during the second symposium from discussions by symposium participants. These ideas should complement the committee recommendations and provide an overarching set of activities needed to accomplish interoperability goals.

Summary of Four Committees and Recommendations for the Roadmap:

1) The **Governance Committee** (to be renamed the Governance Council at implementation) will provide a forum, structure and processes for decision making so that recommendations can be reviewed, vetted and decisions made in a transparent, timely and informed fashion. This will provide vital steps in establishing approval, standardization and communication processes that span across multiple CHHS offices, departments, and other entities.

   The Governance Council will identify and implement policies, systems, and decisions that establish authority and responsibility for sustained interoperability among offices and departments within the California Health and Human Services Agency (CHHS). The governance structure provides strong

leadership and a shared vision for interoperability by establishing a framework for data sharing that addresses key elements including policy adjustments; standard agreement language for data sharing; evaluation criteria; approval processes for new systems and modernization projects; and standard language for state and federal budget requests. These elements support future efforts and activities aimed at the continued implementation of the CIR.

The Governance Committee recommended that to further interoperability and data-exchange amongst state and county partners that CHHSA implements and matures the following framework and governance deliverables:

- Governance Model
- Roles and Responsibility Documentation
- Generic Process Flow/Narrative
- Prescription Medication Approval Proof of Concept (POC) Process Flow and Process Narrative (see Section 4.2 for details).

Over the next fiscal year the CHHS Agency will take necessary steps to implement the governance framework and deliverables outlined in the recommendations of the committee. After the governance framework has been effectively stood up the CHHS Agency will continue to assess its effectiveness and further its maturity.

Table 2 Recommendations from Governance Committee

Governance Committee Recommendations		
0-6 Months	**6 -24 Months**	**Beyond 2 Years**
• Begin formalization of strategic level of governance model. • Begin process for staffing governance liaison position.	• Establish and staff major elements of the governance model • Draft governance policies, processes, and procedures. • Establish repositories. • Implement governance.	• Fully implement and follow governance across CHHS and counties. • Formalize mature governance policies, processes, procedures, and repositories.

2) The **Information Technology** (IT) committee brought together stakeholders from across CHHS and counties to explore opportunities to enhance data sharing, suggest ways to better connect health and human services, and identify projects that can be leveraged to improve interoperability. It provided recommendations regarding enterprise architecture and information technology initiatives to leverage and improve interoperability over the short, medium and long term.

The Information Technology committee made specific recommendations for action related to enterprise architecture:

- Adopt MITA, NHSIA, and related information-sharing standards

- Plan implementation solutions that support key concepts including:
  - Common processes
  - Shared information
  - Core capabilities
  - Service-oriented architecture
  - Identity management and access control
  - Shared IT services
  - Hubs
  - Shared infrastructure
  - Performance metrics and analytics
- Adopt/consider the key concepts at every opportunity. Examples of "opportunities" include major procurement, minor enhancement, bug fix, and system upgrade.
- Build on lessons learned from SSIIP proof of concept demonstrations, Federal projects, California counties' efforts, other California agencies, and other nationwide or industry organizations.
- Integrate health and human services enterprise architectures for interoperability. Stay consistent with the California enterprise architecture framework and reference architectures.
- Implement identified short-, medium-, and long-term goals initiatives/activities.
- Focus on high-priority common processes/capabilities (e.g., identity and access management, confidentiality and privacy agreement, master person index).
- Focus on high-priority information exchanges to support the high-priority common processes/capabilities.
- Continue collaboration among organizations that support health and human services across the state and counties to further interoperability

The IT committee also recommended leveraging ongoing and upcoming initiatives to further interoperability:

- Enterprise architecture activities at state, agency, department, and county levels
- Health Information Exchange (HIE) (for data exchange)
- CalHEERS (for eligibility and enrollment)
- LEADER Replacement System (for eligibility and partnerships)
- Alameda County dashboard (for data integration and business intelligence metrics)
- Orange County GFIPM[5] and Juvenile Information Content Exchange (JUICE) (for identity management, access control, and data exchange)
- San Diego County Beacon activities (for education and outreach, common processes, data exchange, and partnerships)
- Los Angeles County master person index and GFIPM (for identity management, access control, master data management, and data exchange)

[5] The conceptual foundation of the GFIPM project is the idea of federated identity and privilege management (FIPM). FIPM is an extension of the more common concept of federated identity management, which provides the ability to separate the management of user identities from the management of the systems and applications in which those identities are used. In a federation, user identities are managed by identity providers (IDPs) and applications and other resources are managed by service providers (SPs).

- CWS/CMS (for general system modernization, data exchanges, and to link with eligibility and enrollment processes/systems)
- Medi-Cal Eligibility Data System (MEDS) (for general system modernization and data exchanges)
- CA Department of Motor Vehicles (DMV) (for master person index and identity management)
- CA IT capital planning process (for governance, leveraging other projects, education and outreach)
- California State Innovation Model (for identifying and capitalizing on innovation)

Finally, the committee recommended further investigation to determine the applicability of other possible initiatives:

- Check California's feasibility study reports for other candidates.
- Conduct research into unique student, patient, or client identifiers which may be leveraged
- State systems managed outside CHHS (e.g., educational, judicial)
- Federal hub (for shared components, eligibility data verification)
- Federal Parent Locator Service (leverage for child welfare and, potentially, other uses)

Table 3 Information Technology Recommendations

Information Technology Recommendations			
Recommendation	**0-6 months**	**6 months-2 years**	**2 years +**
Adopt national standards	Education and outreach about the national standards. The education and outreach should be directed towards staff members and partners who are involved with business processes, information management, and all phases of the system development lifecycle. Material used in the NHSIA/MITA tutorial webinars may be a useful starting point. Include the role of enterprise architecture.	For active projects, identify which standards will be adopted and how they will be implemented. Review those plans in the governance process. Identify and collect candidate metrics to measure improvements.	Develop a plan for full implementation for all projects. Adopt metrics to measure improvements. Formalize the governance process for reviewing projects to ensure that those projects are adopting standards.
Support key concepts	Education and	For active projects,	Develop a plan for full

Information Technology Recommendations			
Recommendation	**0-6 months**	**6 months-2 years**	**2 years +**
	outreach about the concepts. The education and outreach should be directed towards staff members who are involved with business processes, information management, and all phases of the system development lifecycle. Material used in the NHSIA/MITA tutorial webinars may be a useful starting point.	identify how to implement (perhaps, selected) concepts. Review those plans in the governance process.	implementation for all projects. Formalize the governance process for reviewing projects to ensure that they are implementing the key concepts.
Adopt/consider key concepts at every opportunity	Education and outreach about the concepts, tailored and focused on different aspects to consider depending on the nature of the opportunity. The education and outreach should be directed towards staff members who are involved with project planning and/or system operations and maintenance.	Formalize the governance process to consider the concepts at every opportunity.	
Build on lessons learned	Identify lessons already learned that are of most value for interoperability. Start by reviewing the initiatives/projects listed above. Document a process for capturing lessons learned.	Determine how to apply those lessons. Document a planning process to incorporate lessons learned.	Ongoing: Continue to follow the processes to watch for lessons learned and determine how to apply them.

Information Technology Recommendations			
Recommendation	**0-6 months**	**6 months-2 years**	**2 years +**
Integrate health and human services architectures	Evaluate emerging and existing agency, department, and county architectures, state-level EA framework, and state-level reference architectures. Look for synergy, compatibility, differences. Propose and plan adjustments and an approach for integration and improved system interoperability.	Adjust and integrate the architectures. Test the revised approaches through use of the architecture in the governance process and related projects.	Formalize the governance process to use the integrated architecture. Accommodate the "living" nature of the architecture.
Implement identified initiatives/ activities	Influence the Child Welfare System/Case Management System (CWS/CMS) procurement document • Include NIEM standards • Include linking to CalHEERS, other eligibility systems* • Include common eligibility • Include SOA Note: The procurement team already plans to include all but the item marked * Give CWS workers access to systems that hold health, immunization, and	How to address security, including the level of granularity of data access and control. Develop "blue button" for clients, to let them view and export their own health and human services information. Start with this for older foster children. Identify what data need to be shared, with whom, and when.	Integrate consortia systems. SAWS (Statewide Automated Welfare Systems). LEADER (Los Angeles Eligibility Automated Determination, Evaluation, and Reporting system) and the LEADER Replacement System, C-IV (Consortium-IV), and CalWIN (California Work Opportunity and Responsibility to Kids Information Network). Integrate the systems. Plan for SOA, use of standards for information sharing, linkage to CalHEERS, common eligibility.

Information Technology Recommendations			
Recommendation	**0-6 months**	**6 months-2 years**	**2 years +**
	other data used to determine eligibility for other programs like Medicaid. Implement automated referral for Medicaid.		
Focus on high-priority common processes/ capabilities	Focus on identity management and access control, confidentiality and privacy agreements, and master person index to establish core/foundational base of capabilities. Test the solutions using the SSIIP Proof of Concept use case.	Build on the core. Focus on case portfolio management, provider registry, eligibility determination, and enrollment. This scheduling should enable California to take advantage of favorable 90/10 funding associated with the Affordable Care Act.	Continue to build on the core and initial capabilities and address performance management and population health processes. Stakeholders should keep these longer-term objectives in mind in the earlier phases and plan strategies and solutions that will easily accommodate them.
Focus on high-priority information exchanges	Considering all the other recommendations, identify a small set of high-value information exchanges for near-term standardization and implementation. Document a process for adopting standards and for specifying and implementing the exchanges.	Build on the lessons learned from the first set of standardized information exchanges. Identify additional exchanges. Test the specification and implementation process. Adopt a standard dictionary.	Formalize the governance process for defining and implementing standard data exchanges.
Continue collaboration	Enlist sponsors and management support for a collaborative forum. Identify/establish the forum and, if not	Ongoing: Work on recommendations. Build partnerships. Solve problems.	Continue collaboration

Information Technology Recommendations			
Recommendation	**0-6 months**	**6 months-2 years**	**2 years +**
	already available, a Web site to support it. Invite participants and organize materials. Schedule meetings on a regular basis. Collect topics for discussion using other recommendations for inspiration. Determine how to coordinate with related activities.		

3) The **Legal and Confidentiality** Committee drafted a **Privacy and Confidentiality Framework** to address and help overcome barriers to sharing or exchanging necessary and relevant data/information in the administration of public programs under the purview of the California Health and Human Services Agency. In the course of the committee's work on the Framework, members also:
    - Drafted key elements for interagency data sharing agreements;
    - Developed and administered an Interoperability Survey to identify specific areas in which there have been denials of, or barriers to, sharing or exchanging data/information, aka interoperability; and
    - Reviewed and provided feedback on the Governance Model structure and roles/responsibilities related to privacy and confidentiality.

    The Legal and Confidentiality Committee will be absorbed within the Governance Model structure, once formally adopted, and renamed the Agency Legal and Privacy Committee. It will include some of the same members.

    The Legal and Confidentiality Committee's charge was to draft a Privacy and Confidentiality Framework that will be incorporated into the SSIIP and would focus on:

    - Identifying top priorities to legally enable data-sharing throughout CHHS programs that can realistically be initiated in the short and long-term. Priority should be given to developing legal protocols for data-sharing agreements associated with the POC, including but not limited to social worker access to other systems used to authorize payments for the medicines, including psychotropic medications, administered to foster children.
    - Establishing a written Privacy and Confidentiality Framework to address short), medium, and long-term data-sharing requirements, conditions, and permissions for Agency departments. This Framework should be constructed in consultation with the other SSIIP committees.

- Implementing the current Proof of Concept (Prescription Medication Approval Process for Children in Foster Care and Request for Demonstration) and researching federal and state laws regarding subject matter data and information to be shared. Determine whether the subject matter data and information is protected and confidential, so that sharing across agencies and programs is prohibited under current law, state regulation, and/or administrative policy.

Table 4 Legal and Confidentiality Recommendations

Legal and Confidentiality Recommendations		
0-6 months	**6 months-2 years**	**2 years +**
• Complete and compile survey on barriers to information sharing. Start analysis. • Finalize the Privacy and Confidentiality Framework.	• Complete analysis of survey results. • Prioritize/escalate through Governance Model and Privacy and Confidentiality Framework. • Categorize issues into buckets for action.	• Work with stakeholders to establish protocols for data/info sharing under formal agreements.

4) **Organizational Change Management** (OCM) efforts address the requirements of workforce, workflow and training across the enterprise. OCM efforts should be initiated as soon as possible given the impact on the overall interoperability roadmap and each individual committee.

OCM recognizes that every organization begins from a unique starting point. Understanding the starting point of the organization, its readiness for change, key champions, key stakeholders, and performance objectives are critical for building the appropriate culture that is open and receptive to change.

Because every organization is unique, the OCM Roadmap is designed to be a process that will utilize information from the organization to determine next steps of a path forward, rather than a pre-determined set of steps dictating what will be required to guarantee the desired changes. Gaining insight to determine the next steps will require two ways of knowing: quantitative information on how their work will be affected by interoperability, and qualitative information to add richness to the insight of how people will need to change the way work is done.

The roadmap was designed to create learning opportunities to best address the adaptive challenges CHHS will face. A high level view of the OCM Roadmap is shown in and described in detail in the individual committee report.

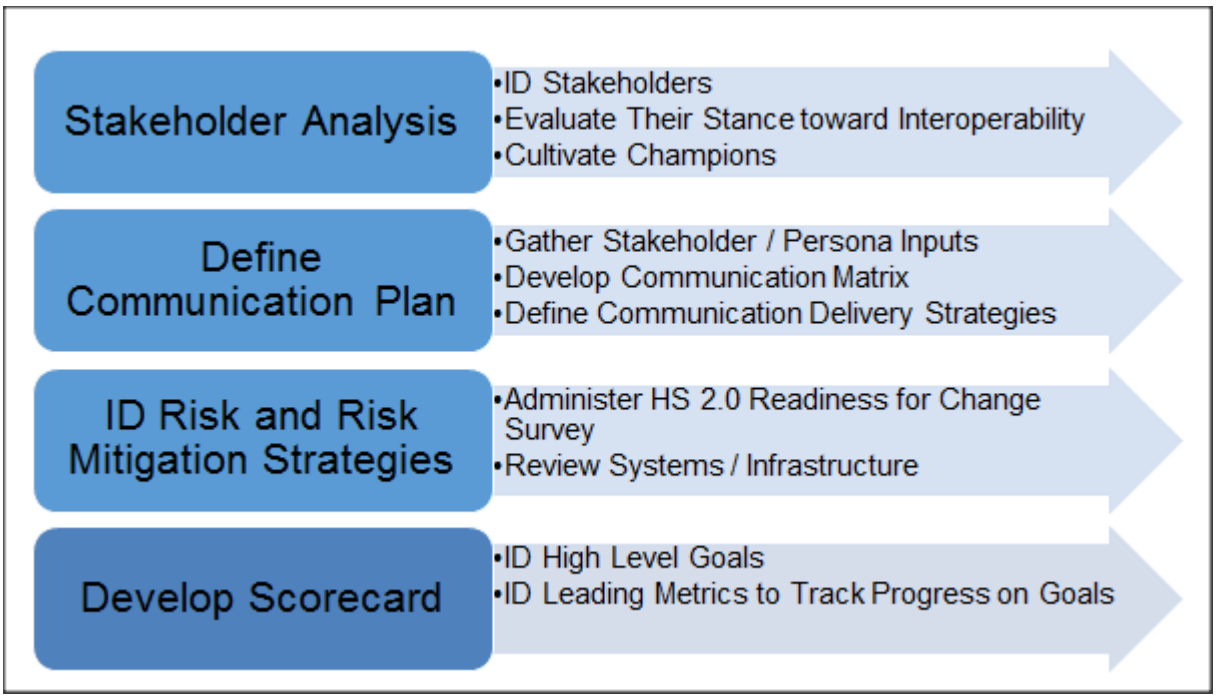


Figure 6 High-level View of Organizational Change Roadmap

Key considerations of the OCM committee include:

- Stakeholder Assessment: OCM recognizes that leadership support is critical and necessary, but not sufficient. The first step in the OCM Roadmap is to identify both formal and informal stakeholders in the organization, and evaluate their stance toward interoperability. There are many tools that should be deployed to identify influential individuals and then develop action plans to utilize champions to support the effort, garner the support of potential naysayers and satisfy their concerns, and ensure that appropriate communication vehicles are put in place to alleviate and surprises.
- Communication Plan: Communication is a key element of any change effort. Being deliberate about who, what, when, why and how will ensure that appropriate and ongoing communications take place and that the organization is aware of the initiatives and schedules.
- Risk Identification and Risk Mitigation Strategies: The maturity level of the organization plays an enormous role on the ability to adopt and adapt to the changes envisioned by an interoperable framework. Conducting a baseline readiness assessment will provide insight to the organization about its strengths and development areas. The baseline assessment provides a starting point to develop the infrastructure to support change, decision making and technical standards that will support interoperability.
- Scorecard & Performance Metrics: Developing a scorecard to monitor progress of all the OCM efforts ensures a way to keep the organization accountable to needed actions, and to test whether the developed set of actions to support change are in fact achieving the desired goals. An underlying assumption behind the OCM effort is that change will not happen overnight and will require significant time and effort. A scorecard offers insight into the long term process of making change reality.

Table 5 Organizational Change Management Recommendations

Organizational Change Management Recommendations		
0-6 months	**6 months-2 years**	**2 years +**
• ID key stakeholders and assess their stance toward interoperability • Cultivate champions to communicate and market interoperability • Initiate development of personas to enable a broader, richer, and deeper understanding of the requirements of the customer of the change efforts • Develop Communications Plan.	• Adopt and track appropriate performance metrics • Identify and prioritize behavior changes needed to realize interoperability, then provide supports to the individuals impacted by these changes • Evaluate the existing infrastructure and ensure that they support the desired changes rather than inhibit	• Monitor progress using the performance metrics identified • Continue to evaluate and develop the personas to ensure they reflect the experiences of an ever-changing system of delivery • Continued evaluation of organizational infrastructure

Over the course of this project there has was a tremendous amount of work conducted by subject matter experts, committee teams and multi-disciplinary groups of professionals from across the state and counties. These efforts have produced a deeply researched set of recommendations and a detailed roadmap that will guide CHHS during its implementation of the interoperability initiative certainly over the first two years, and potentially beyond. To guard against the risk of perpetuating silo thinking or isolated departmental activities the project team worked diligently to synthesize learning across the committees throughout the project and during the final symposium. This strategy was intended to reinforce the underlying principle of interoperability which views clients and systems holistically rather than in isolation.

The committee reports and recommendations reflect this integrated approach and have been developed to encourage close working relationships between individuals and departments. The agenda for the final symposium was explicitly designed to expose participants to the content of individual committees but also build towards a structured set of exercises to review and synthesize the feedback and recommendations.

The participant composition for the second symposium comprised a mix of people who had attended the first symposium and a significant number of new people. This mix generated a range of

recommendations that both confirmed the specific recommendations of the committee reports and also highlighted a few areas for additional consideration by leadership. Key themes are summarized below in no particular order:

1. Leadership Is Critical
   - Defining and disseminating a common vision for interoperability is critical. As with all successful large scale projects a strong endorsement by the senior leader is critical. During the second symposium there was a broad consensus that obtaining an executive order or letter supporting the initiative and defining time frames from the CHHS Secretary would be valuable for success.
   - As part of creating the enabling culture and environment for interoperability it was also broadly agreed that identifying champions across the state would be necessary to drive the desired changes close to individual operating unit or programs. Leadership must lead by example and by providing encouragement, support and authorization for action. Even in situations where no formal interoperability office exists, it is important to create the cultural norms that embrace interoperability and drive change from the bottom up, top down and middle out.

2. Communications and Education Are Essential to Ensure Adoption and a Common Understanding
   - Change is hard and confusing. This is especially true for projects that are as large, complex, and lengthy as interoperability. Clearly articulating the key messages frequently across the enterprise using multiple media vehicles is crucial for building awareness, supporting stakeholder engagement and sustaining engagement for the project. Ongoing education is key for broad scale understanding and adoption of new models and approaches. Utilizing tools and materials from the Roadmap planning phase (video, presentations, research and graphics) can provide the basis for a comprehensive education program that can be disseminated across the state and counties rapidly.
   - Based on the interaction and feedback from the symposium sessions a variety of tactics and media vehicles would be useful for communications. For internal communications, there was enthusiasm for developing and using Personas to sensitize and educate workers about the complex clients that are being served across the CHHS enterprise. Personas can help illustrate the multiple perspectives so that everyone involved can embrace a common vision of the client(s) that can be rapidly transmitted across departments, workers and systems.

3. Adopting National Standards Will Encourage System Integration and Interoperability
   - Shell Culp, Chief Deputy Director, California Office of Systems Integration reinforced the fact that OSI had adopted national architectural and information sharing standards going forward. These standards include Medicaid Information Technology Architecture (MITA), National Human Services Interoperability Architecture (NHSIA), HL-7, and National Information Exchange Model (NIEM). There should be no further confusion about whether national standards will be adopted by California. The challenge ahead is to inform and educate everyone at the state and county levels along with the vendor community about these standards and how they should be incorporated into projects and procurements.

4. Funding and Procurement Procedures Need to Incorporate Language to drive IT Standards and Enable Reuse
    - An important consideration for technology contracts is the need to incorporate specific language authorizing reuse of components for other programs. Today it is very difficult to reuse a component that the state and/or federal government already paid for if it is not explicitly indicated for reuse in procurement documents. Additionally, contracts should also include specific language about incorporating MITA, NHSIA, and information exchange standards as the basis for enterprise architecture and information sharing.
    - Today, programs or procurement actions are often funded by a grant or other source that restricts how the money may be used. This discourages interoperability and continues the existence of functional and programmatic silos. California and other states must work with funding partners to enable mixed funding sources for programs/projects and encourage the use and allocation of funds to support multiple purposes and initiatives.

5. Culture Change is the Foundation for Realizing the Promise of Interoperability
    - Transitioning from a culture of individual programs operating in service silos to a collaborative and interoperable environment is a significant and long term change effort. Adopting a repeatable process including common language and model will help communicate the changes and align interests and expectations. However, there was recognition that change will not happen by itself and that specific and sustained investments will be needed to change mind sets to a more client-centered approach. The work conducted during the initial planning year should be leveraged, built upon and sustained over time.

6. Focusing on Both Health and Human Services Is Necessary to Improve Outcomes and Efficiency
    - The research from population health and social determinants clearly shows that overall health outcomes are dependent on people having access to a full spectrum of health and human service programs. Embedding this understanding inside CHSS will require ongoing education and training. It will require a change in behavior and ultimately a change to funding priorities. Bridging the health and human services divide will require documentation of outcomes to quantify the benefits and will serve as the basis for influencing investment strategies across CHHS.

7. Workforce Development Is Necessary to Achieve Interoperability
    - In response to the changing data sharing environment, Symposium II participants identified potential challenges related to ensuring the workforce is engaged in change processes, informed about interoperability and integration, and prepared to use new approaches to data sharing. Participant concerns focused on:
        - Skill set. Implementing interoperable and integrated business processes and systems and measuring the success of change requires a different skill set than many workers have today. State and county agencies and departments must either develop the appropriate skills among current workers or hire new staff with those skills.

- Current workforce. A number of employees are near or reaching retirement at State and local levels and some are moving to other positions as openings occur. The resulting transition within organizations highlights resistance to change; and that, coupled with looming adjustments to job descriptions poses human resource and potential labor challenges.
- New employees. A transfer of historical knowledge is key to effective transitions. Although new employees may be comfortable with electronic/new business processes, they may lack organizational historical context, thus making it difficult to build on established relationships and capitalize on previous lessons learned. To bring the full workforce up to speed, participant's emphasized need for a strong communication strategy that engages, informs, and educates on interoperability and integration. Identifying and communicating about new roles is also essential. Participants confirmed that implementation of strategies outlined in the Organizational Change Management roadmap is important in order to keep workforce apprised of what is changing and provide support during the transition to electronic data sharing.

Table 6 Synthesis Recommendations identifies the key activities recommended to address the synthesis theses from the second symposium categorized into near-, medium-, and longer-term. Since many of these recommendations emerged during the symposium they will need to be reviewed by leadership about whether to incorporate them into the overall plan going forward.

Table 6 Synthesis Recommendations

Synthesis Recommendations		
0-6 Months	**6 -24 Months**	**Beyond 2 Years**
• Define a common vision for interoperability. • Identify and recognize state and county interoperability champions. • Develop and begin to implement a communications plan for engaging a broad set of stakeholders about interoperability. • Further develop personas to support ongoing interoperability efforts. • Refine and develop materials to foster the	• With Federal, State, and County partners, establish a strategy and tactics for funding interoperable business, data, and technical architectures. • Identify the security standards and protocols California will adopt. • Implement governance activities (July 1, 2014). • Identify planned approach for achieving interoperability and adopting national standards in all major system changes	• Measure progress towards adopting a more client-centered approach. • Confirm a clear, complete, funded plan for adopting national standards in all California health and human services systems. • Make requisite training available to continue development and maintenance of workforce with appropriate skills to sustain interoperable policies, practices, and systems.

Synthesis Recommendations		
0-6 Months	**6 -24 Months**	**Beyond 2 Years**
cultural changes needed to adopt a client-centered approach. • Develop a detailed plan for integrating and sequencing interoperability activities across the driver areas. • Assess gaps in skills needed to achieve interoperability. • Disseminate information about the national standards California has adopted (MITA, NHSIA, NIEM, HL-7).	and procurement activities. Based on lessons learned from early efforts, update procurement guidance to include interoperability aspects. Eliminate silos in the contracting and procurement process. • Champion and share ideas about how to change the culture, practices, and systems to provide a more client-centered approach. • Define and begin to implement workforce development plan to close skill gaps.	• Initiate work on the other change drivers o Customer-centered focus o Building open and inclusive processes o Innovative funding streams o Building public and political will o Data and performance measurement systems o Bridging service silos

Conclusions

California's interoperability roadmap starts with tangible actions that can quickly demonstrate value across multiple departments within the domains of governance, legal, technology and organizational change management. These successes can be leveraged to build support and momentum for the larger and longer-term integration and interoperability initiatives. Practically speaking, CHHS could leverage the momentum and learning from the Psychotropic Medication Approval (PMA) process Proof of Concept to demonstrate the ability to share information from multiple sources with multiple stakeholders and across multiple programs. This demonstration would provide tangible evidence of the benefits and possibilities for interoperability solutions that touch multiple departments.

An underlying assumption of the interoperability roadmap is that changing how work gets done requires a change in the value system of the organization. Changing value systems is adaptive work, not technical work. Technical challenges can be defined as challenges that can be defined and solutions are known. Adaptive challenges can be difficult if not impossible to define, and solutions are not known. When adaptive challenges are addressed with technical solutions they are destined to fail. So addressing needed changes will require learning, and the roadmap and methodology facilitates that process.

Long term, successful implementation will require an ongoing commitment to focus on all ten change drivers and their impact on the evolving environment within CHHS along with state and local government. Adaptability and agility will be required to keep pace with the one constant: change.

3 Drivers of Interoperability

The primary objective of the project to create a community of practice for breaking down information silos that adversely affect the ability of programs within the California Health and Human Services (CHHS) Agency to serve beneficiaries optimally and cost-effectively. Within the CHHS Agency there are hundreds of information systems ranging from the highly complex, like Medi-Cal Eligibility Data System that tracks Medicaid and Medicare eligibility for millions of beneficiaries, to the relatively simple, stand-alone database that tracks a relatively small number of county-reported child fatalities each year. This project addressed the development of a plan for implementing interoperability within CHHS Agency. In doing so, two major obstacles are overcome:

1. Identify the funding needed to research the plan and
2. Implement a governance structure and policy to address cross domain aspects of business, information, application, and technology requirements.

3.1 Governance Change Driver

In 2013, the Office of Systems Integration (OSI) in the California Health and Human Services (CHHS) Agency led the Systems Integration and Interoperability Project (SSIIP). An interoperability roadmap is one of the main project deliverables. State and County volunteers participated in one or more committees supporting the project. This report reflects the activities and recommendations resulting from the Governance Committee's efforts.

The Governance Committee of the State Systems Interoperability and Integration Project (SSIIP) developed an overarching governance framework, and supporting work products, to guide decision-making, develop operating procedures and enable collaboration that promote interoperability and data-exchange across California Health and Human Services (CHHS) Agency. The committee utilized a Proof of Concept use case (psychotropic medication for children in foster care) as a proxy to test the efficacy of governance flow, structure and outcomes.

3.1.1 Governance Committee Purpose

The Governance Committee's charge was to identify policies, systems, and decisions that establish authority and responsibility for sustained interoperability among the offices and departments within the California Health and Human Services (CHHS) Agency.

3.1.2 Governance Committee Deliverables

The final product for the SSIIP governance committee is comprised of the following deliverables:

1. Governance Model
2. Roles and Responsibilities Documentation
3. Generic Process Flow/Narrative
4. POC Process Flow and Process Narrative (see Section 4 for details)

1. **Governance Model** – illustrates the process for making decisions at an Agency level based on the coordinated interaction of three components: decision structures, operating procedures and collaboration enablers.

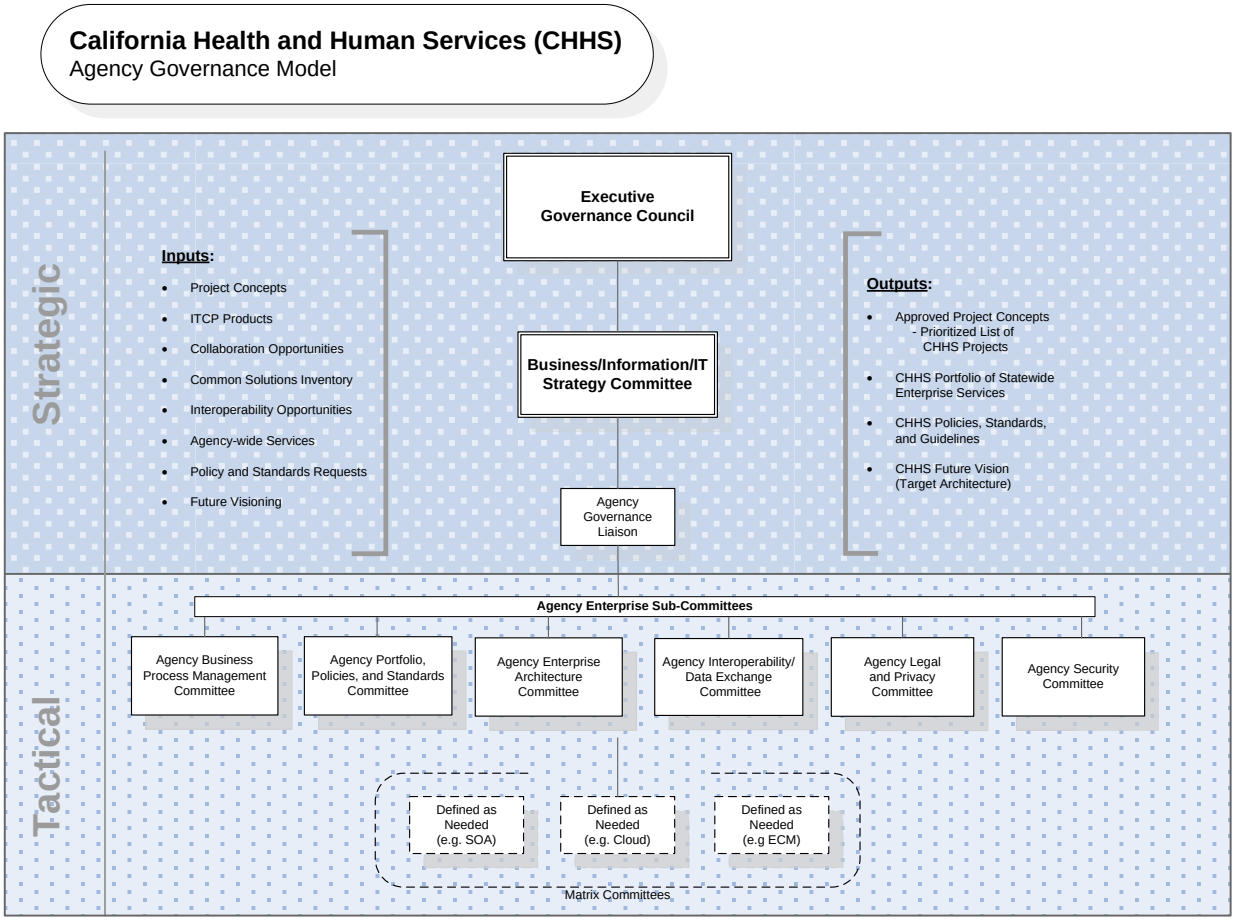


Figure 7 California Health and Human Services Agency Governance Model

2. **Roles and Responsibilities Documentation** – outlines the CHHS governance model's roles and responsibilities associated with the entities illustrated in Figure 7 California Health and Human Services Agency Governance Model

Executive Governance Council

A decision making body at the agency level responsible for making final decisions on recommendations brought forth by the Business/Information/IT Strategy Committee that may

include: Project Concepts, Collaboration Opportunities, Policy and Standards Requests, Future Visioning, etc.

Members: CHHS Agency Information Officer (Lead), Under Secretary and Department Directors

Business/Information/IT Strategy Committee

A decision making body at the agency level responsible for assessing the strategic relevance and potential business value of requested initiatives, project concepts, policies, standards, etc. based on environmental factors, political climate, funding considerations and findings/information provided by the Agency Enterprise Sub-Committees.

Members: CHHS Deputy Agency Information Officer (Lead), Assistant Secretary, Chief Deputy Directors, Department Chief Information Officers and Program Directors

Agency Governance Liaison

The single point of contact responsible for facilitating all phases of the Agency Governance process, including consolidating findings/information and recommendation from all committees, providing open and ongoing communication channels, as well as communicating critical decisions and outputs to governance bodies and stakeholders.

Agency Enterprise Sub-Committees

Agency Business Process Management (BPM)

Responsible for examining and unifying business process, at an enterprise level, to promote business effectiveness and efficiency while ensuring innovation, agility, and continuously improved/optimized processes.

Members: Agency Business Process Improvement Manager (Lead), Process Owners, Program Managers, and Business Process Analysts

Agency Portfolio, Policies, and Standards

Responsible for assessing all applicable inputs to ensure compliance and alignment with project management best practices, Agency, State and Federal policy, standards and conditions.

Members: CHHS Agency Portfolio (Lead), Department Project Management Office Managers, Policy/Standards Compliance Managers and Program Managers

Agency Enterprise Architecture

Responsible for assessing architectural policies, processes, frameworks and strategies to ensure compliance and alignment with Agency, State and Federal enterprise architecture standards and best practices.

Members: CHHS Agency Enterprise Architect (Lead), Department Enterprise Architects and IT/Business Managers

Agency Interoperability/Data Exchange

Responsible for identifying and assessing interoperability/data exchange requirements, opportunities and requests to ensure compliance and alignment with Agency, State and Federal standards.

Members: Agency Interoperability/Data Exchange (Lead), Health Information Exchange (HIE)/Health Information Technology (HIT) representatives and IT/Business Managers

Agency Legal and Privacy

Responsible for assessing all applicable inputs, privacy risks, issues, and complexities to ensure compliance with Agency, State and Federal policy and standards, developing CHHS policy and standards to ensure compliance with Federal and State laws/regulations and drafting language as need to remove existing legal barriers.

Members: CHHS Legal Council (Lead), Legal and Privacy representatives

Agency Security

Responsible for assessing security risks, issues, and complexities to ensure compliance with Agency, State and Federal policy and standards.

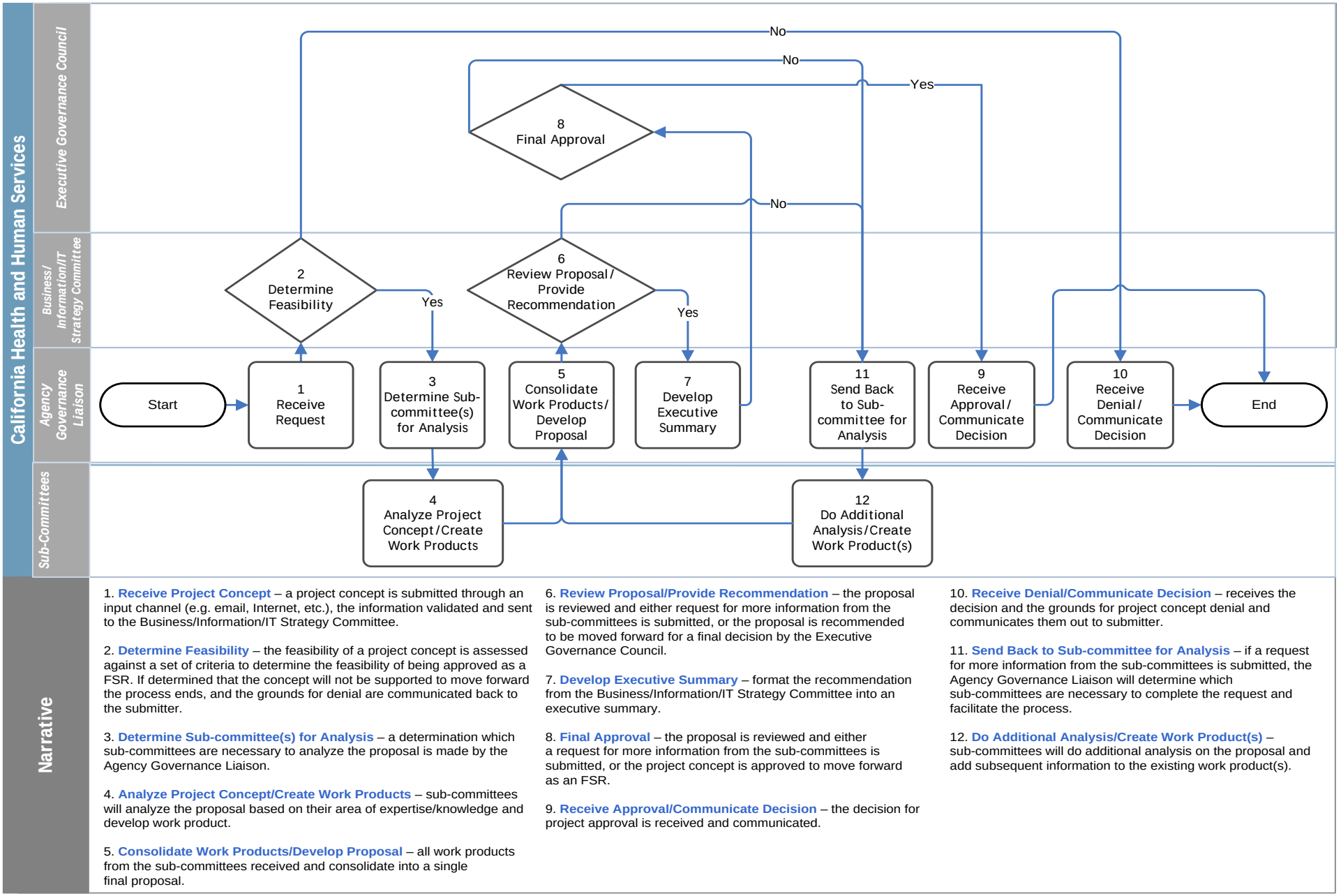
Members: Agency Security (Lead) and Department Information Security Officers

Enterprise Matrixed Committees

The Enterprise Matrixed Committees will be developed on an "as needed" basis and will follow the same structure as all other committees. These committees could be developed on an ad-hoc or on-going basis as needed.

3. **Generic Process Flow –** Figure 8 below - California Health and Human Services Agency Governance Generic Process Flow depicts the governance process as approved by the SSII Project Governance Committee and illustrates a generic process based on a project concept submission request. The request would run through the various levels of governance committees with information funneling upward until a final decision has been determined.

California Health and Human Services
Agency Governance Process



1. **Receive Project Concept** – a project concept is submitted through an input channel (e.g. email, Internet, etc.), the information validated and sent to the Business/Information/IT Strategy Committee.

2. **Determine Feasibility** – the feasibility of a project concept is assessed against a set of criteria to determine the feasibility of being approved as a FSR. If determined that the concept will not be supported to move forward the process ends, and the grounds for denial are communicated back to the submitter.

3. **Determine Sub-committee(s) for Analysis** – a determination which sub-committees are necessary to analyze the proposal is made by the Agency Governance Liaison.

4. **Analyze Project Concept/Create Work Products** – sub-committees will analyze the proposal based on their area of expertise/knowledge and develop work product.

5. **Consolidate Work Products/Develop Proposal** – all work products from the sub-committees received and consolidate into a single final proposal.

6. **Review Proposal/Provide Recommendation** – the proposal is reviewed and either request for more information from the sub-committees is submitted, or the proposal is recommended to be moved forward for a final decision by the Executive Governance Council.

7. **Develop Executive Summary** – format the recommendation from the Business/Information/IT Strategy Committee into an executive summary.

8. **Final Approval** – the proposal is reviewed and either a request for more information from the sub-committees is submitted, or the project concept is approved to move forward as an FSR.

9. **Receive Approval/Communicate Decision** – the decision for project approval is received and communicated.

10. **Receive Denial/Communicate Decision** – receives the decision and the grounds for project concept denial and communicates them out to submitter.

11. **Send Back to Sub-committee for Analysis** – if a request for more information from the sub-committees is submitted, the Agency Governance Liaison will determine which sub-committees are necessary to complete the request and facilitate the process.

12. **Do Additional Analysis/Create Work Product(s)** – sub-committees will do additional analysis on the proposal and add subsequent information to the existing work product(s).

Figure 8 California Health and Human Services Agency Generic Process Flow

Generic Process Flow Narrative – is a supporting document that describes the step-by-step process illustrated in Figure 8 California Health and Human Services Agency Generic Process Flow. The following excerpt, the governance process narrative, outlines the basic flow.

Governance Process Flow Narrative

1. Receive Project Concept – a project concept is submitted through an input channel (e.g. email, Internet, etc.), the information validated, and sent to the Business/Information/IT Strategy Committee.

2. Determine Feasibility – the feasibility of a project concept is assessed against a set of criteria to determine the feasibility of being approved as a FSR. If determined that the concept will not be supported to move forward the process ends and the grounds for denial are communicated back to the submitter.

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12. Do Additional Analysis/Create Work Product(s) – sub-committees will do additional analysis on the proposal and add on to existing information to the work product(s).

3.1.3 Committee Recommendations / Next Steps

The recommendations of the Governance Committee of the State Systems Interoperability and Integration Project (SSIIP) reflect the final product created by the group. It is recommended that to further interoperability and data-exchange amongst state and county partners that CHHS Agency implements and matures the following framework and governance deliverables:

- Governance Model
- Roles and Responsibility Documentation
- Generic Process Flow/Narrative
- Prescription Medication Approval Proof of Concept (POC) Process Flow and Process Narrative

This provides vital steps in establishing beneficial approval, standardization and communication processes that span across multiple CHHS offices, departments, and other entities.

Over the next fiscal year the CHHS Agency will be taking necessary steps to successfully implement the governance framework and deliverables outlined in these recommendations. After the governance framework has been effectively stood up the CHHS Agency will continue to assess its effectiveness and further its maturity.

3.2 Technology Change Driver

3.2.1 IT Committee Purpose

The Information Technology (IT) committee brought together stakeholders from across CHHS and counties to explore opportunities for interoperability, suggest how to connect health and human services better, and identify projects to leverage in order to improve interoperability. This section presents the findings and recommendations from the IT Committee. The IT Committee was charged to develop technology-related recommendations for the state's Interoperability Plan focused on:

1. Enterprise architecture (EA);
2. IT initiatives to be leveraged for interoperability; and
3. Identifying top priorities for data sharing within programs under CHHS that can realistically be initiated within the next 5 years and implemented within the next 10 years.

The committee recognized that state and county partners help to deploy those programs and need access to information. Health and human services workers also need to exchange information with those outside health and human services as well (e.g., education, courts, law enforcement…)

3.2.2 IT Committee Deliverables

The committee produced two main artifacts

1. IT-related Enterprise Architecture recommendations for the State plan, building on the draft To-Be vision and the roadmap exercise at the first SSIIP Symposium. Each recommendation includes a timeline of near-term, medium-term, and longer-term activities.
2. Recommendations for leveraging ongoing/upcoming IT initiatives.

3.2.2.1 Enterprise Architecture Recommendations

This following vision statement was crafted and accepted as the shared vision for the CHHS To-Be enterprise architecture (EA).

> *Our To-Be architecture will improve the delivery and outcome of health and human services in California. It will be consistent with MITA (Medicaid Information Technology Architecture), NHSIA (National Human Services Interoperability Architecture), and related information sharing standards (NIEM and HL7).*

Key features of this improvement include:

- "No Wrong Door" for clients
- Client-oriented systems to promote a single view of the client

- Improved program integrity
- Systems that are easy for case workers and agency staff members to use
- Interoperability of business processes and systems across the agency

    - Sharing and reuse of processes, applications, services, data, and infrastructure across domains and programs
    - Use of standards for data exchange
    - Secure, efficient, and effective data sharing to meet stakeholder needs

- Approaches for human services that leverage and build on health-related projects and initiatives and vice versa

The committee agreed on fundamental ideas and *terminology* related to interoperability. The committee expressed the conviction that integration and communication can be facilitated through data linkage and information sharing.

- *Core capabilities* provide a foundation for interoperability (among programs, agencies, departments, organizations, and jurisdictions).
- *Interoperable systems* share business architecture, information, and IT services to efficiently deliver integrated health and human services to the client community.
- Interoperability can be achieved through frameworks, business processes, standards, infrastructure, and systems compatible with NHSIA, MITA, NIEM (National Information Exchange Model), and HITECH EHR (Health Information Technology for Economic and Clinical Health Electronic Health Records) requirements.

The committee recommended a set of major elements of the To-Be enterprise architecture.

- Business

    - Agree to adopt and enforce standards
    - Playbook for shared information and technology
    - Identify automation components to support business

- Information

    - Standards
    - Data models
    - Ensure audit capacity
    - Aggregate information to be made publicly available (and to support research)

- Technology to share

    - Identity management
    - Access control
    - Registries

- Security

- Governance (a separate committee[6] worked on this topic)
  - Identify policies, systems, and decisions that will establish authority and responsibility for sustained interoperability

- Options for connections to support County-State health information exchange (HIE) and, potentially, other exchanges
  - Federated model (no state central hosting)
  - State central hosted model
  - Mixed model (state central hosted for smaller counties connecting with county hosted for the larger counties; or county hosted for larger counties and regionally hosted for smaller counties)

As a result of IT committee discussions, the group referred these items to other SSIIP committees:

- Referred to the Governance committee: Incorporate a process for adopting interoperability standards into the CHHS governance structure. It would be the norm for everyone to follow those standards. Any changes and/or exceptions would go through the governance process for approval.
- Referred to the Legal and Confidentiality committee: Identify/develop data sharing agreements for county-to-county sharing (e.g., child welfare needs).
- Referred to the Legal and Confidentiality committee: Address opt-in or opt-out – i.e., how a client gives consent for information sharing. How could consent be handled consistently for particular populations? (e.g., for kids in foster care, who can judge give/rescind consent?)

Over the course of their meetings, the committee developed several specific recommendations related to enterprise architecture. Table 7 lists the recommendations. Order does not imply priority.

[6] The Governance Committee is recommending a governance model for implementation of electronic data sharing across CHHS departments. The model is to be a framework to guide decision-making related to infrastructure (i.e. policy adjustments, standard agreements for data sharing, evaluation criteria, approval process for new IT systems and modernizations, standard language for system access and data sharing agreements) and operation (data access and access control). Note: Several of the IT Committee's specific enterprise architecture recommendations rely on governance to accomplish them.

Table 7 Enterprise Architecture Recommendations

1.	**ADOPT NATIONAL STANDARDS**
2.	**LEADERS SUPPORT KEY CONCEPTS**
3.	**CONSIDER ADOPTING STANDARDS AND CONCEPTS AT EVERY OPPORTUNITY**
4.	**BUILD ON LESSONS LEARNED**
5.	**INTEGRATE HEALTH AND HUMAN SERVICES ARCHITECTURES**
6.	**IMPLEMENT ACTIONS FOR SPECIFIC INITIATIVES/SYSTEMS**
7.	**FOCUS ON HIGH-PRIORITY COMMON PROCESSES/CAPABILITIES**
8.	**FOCUS ON HIGH-PRIORITY INFORMATION EXCHANGES**
9.	**CONTINUE COLLABORATION**

Section 3.2.2.2 (below) identifies IT initiatives that may be leveraged for interoperability. Many of those initiatives also deal with enterprise-wide concepts and architectural elements. These recommendations should be aligned with ongoing efforts.

3.2.2.1.1 Adopt National Standards

Recommendation: Adopt MITA, NHSIA, and related information-sharing standards

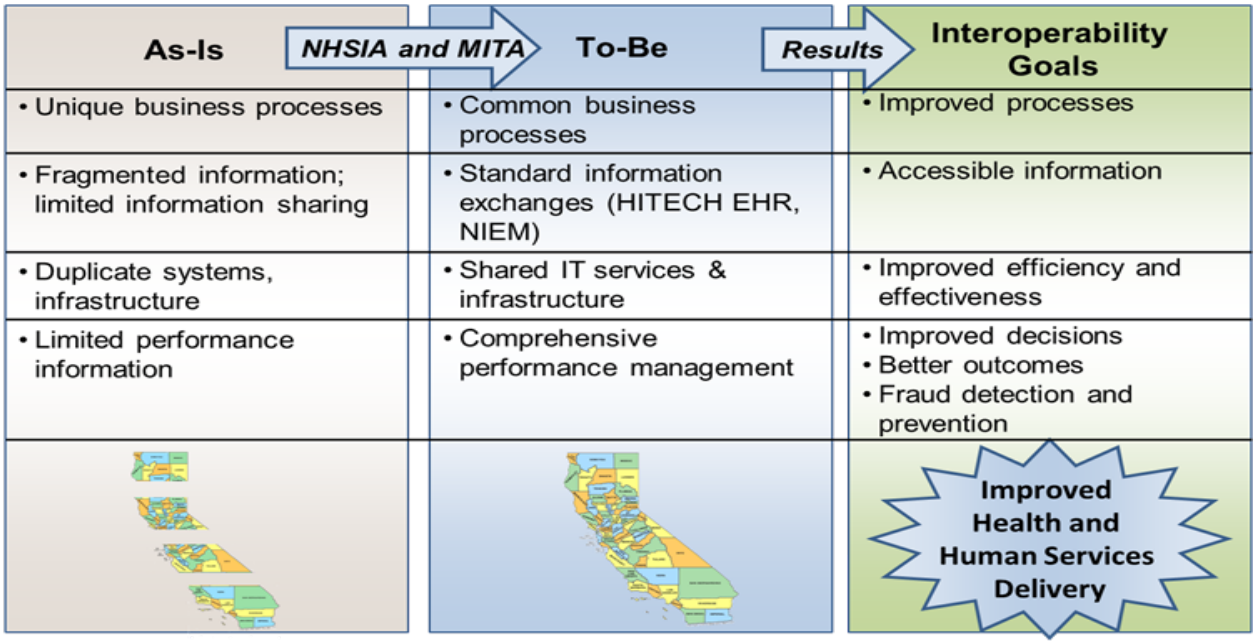

Figure 9 MITA and NHSIA Provide a Framework and Roadmap to Achieve Common Goals

Figure 9 illustrates that MITA and NHSIA provide a framework and roadmap to achieve common interoperability goals. MITA provides a framework for improving Medicaid business processes, information sharing, and information technology systems. NHSIA, the human services equivalent to MITA, provides a framework or a blueprint for moving human services from today's (As-Is) silo'd situation to a future (To-Be) state where some significant goals have been achieved. Following MITA and NHSIA, people, organizations and systems will use interoperable technologies and standards to collect and share information to take action (e.g., refer clients for care and services, approve applications, or schedule/coordinate care and services) in the health and human services domains.

Common objectives of the MITA and NHSIA include:

- Provide a business and technical framework for stakeholders to independently develop interoperable systems
- Promote sharing and reuse of processes, applications, services, data, and infrastructure across health and human services domains
- Develop and adopt standards for data exchange
- Promote efficient and effective data sharing to meet stakeholder needs
- Promote secure data exchange
- Provide a client-centric focus
- Support interoperability, integration, and an open architecture

By adopting MITA, NHSIA, and related information-sharing standards, California will realize these benefits:

- Improved business processes (e.g., identity and access management, confidentiality and privacy agreements, master data management, and case management)
- Shared information across systems, programs, and jurisdictions
- Improved efficiency and effectiveness through the use of technologies like electronic workflow and paperless processes
- Better fraud detection and fraud prevention
- Better outcomes for clients when more timely, accurate, and comprehensive information is used by analysts and decision makers

HL7 is an international organization of healthcare stakeholders with the vision of creating the best and most widely used information exchange standards in healthcare. In common practice, the standards themselves are called HL7 standards. NIEM is a Federal, State, Local, Tribal, and Private inter-agency initiative providing a foundation for seamless information exchange. HL7 and NIEM are being aligned for health information exchange (HIE) and for other health-related information sharing.

NIEM has three relevant domains[7]:

1. Children, Youth, and Family Services. This domain supports timely, complete, accurate, and efficient information-sharing among the partners that can help improve outcomes for children and youth whose circumstances make them particularly vulnerable.
2. Health. The Office of the National Coordinator for Health Information Technology (ONC) is the steward of the NIEM Health Domain. ONC is working with the US Department of Health and Human Services (HHS) Chief Information Officer (CIO) to establish the governance processes for the NIEM Health Domain.
3. Human Services. This domain concerns itself (at local, state, and federal levels) with emergency and non-emergency communications that promote the economic and social well-being of families, children, individuals, and communities.

Representatives from the US Department of Health and Human services are the stewards for all three domains.

The CHHS Agency governance model describes how standards will be adopted and how project adherence to those standards will be assessed. This recommendation aligns with the governance model. Enterprise architects, information architects, and project technical staff members are expected to support the governance processes.

[7] "Domain refers to a business enterprise broadly reflecting the agencies, units of government, operational functions, services, and information systems that are organized or affiliated to meet common objectives." NIEM 101, Technical Introduction to NIEM. https://www.niem.gov/training/Pages/classroom.aspx

Timeline of activities

- **Within 6 months:** Education and outreach about the national standards. The education and outreach should be directed towards staff members and partners who are involved with business processes, information management, and all phases of the system development lifecycle. Material used in the NHSIA/MITA tutorial webinars may be a useful starting point. Include the role of enterprise architecture.
- **6 months – 2 years:** For active projects, identify which standards will be adopted and how they will be implemented. Review those plans in the governance process. Identify and collect candidate metrics to measure improvements. Influence the CA Department of Technology regarding specific standards.
- **More than 2 years:** Develop a plan for full implementation for all projects. Adopt metrics to measure improvements. Follow the formalized governance process for reviewing projects to ensure that those projects are adopting standards.

3.2.2.1.2 Leaders Support Key Concepts

Recommendation: Engage leaders to support and promote implementing solutions that support key concepts from NHSIA and MITA. These key concepts include:

- Common processes
- Shared information
- Core capabilities
- Service-oriented architecture
- Identity management and access control
- Shared IT services
- Hubs
- Shared infrastructure
- Performance metrics and analytics

Each of the concepts is explained in the paragraphs that follow. **Bold text highlights the concept** discussed.

Figure 10 illustrates the concept that **common processes**, **shared capabilities**, and shared information benefit everyone. Horizontal bars represent the common processes and shared capabilities. Vertical bars represent different program areas. With MITA and NHSIA, stakeholders have a framework for understanding processes that are common across programs. Stakeholders can identify capabilities that can be shared/re-used across programs. Stakeholders can work towards establishing shared IT services that will enable these capabilities. Federal, State, and local partners can work towards a strategy that encourages and supports smart deployment of capabilities. Through common processes and shared capabilities, the enterprise should realize improved efficiency and effectiveness as well as better outcomes for clients. Recommendation 3.2.2.1.7 indicates priorities for focusing activities related to these processes/capabilities.

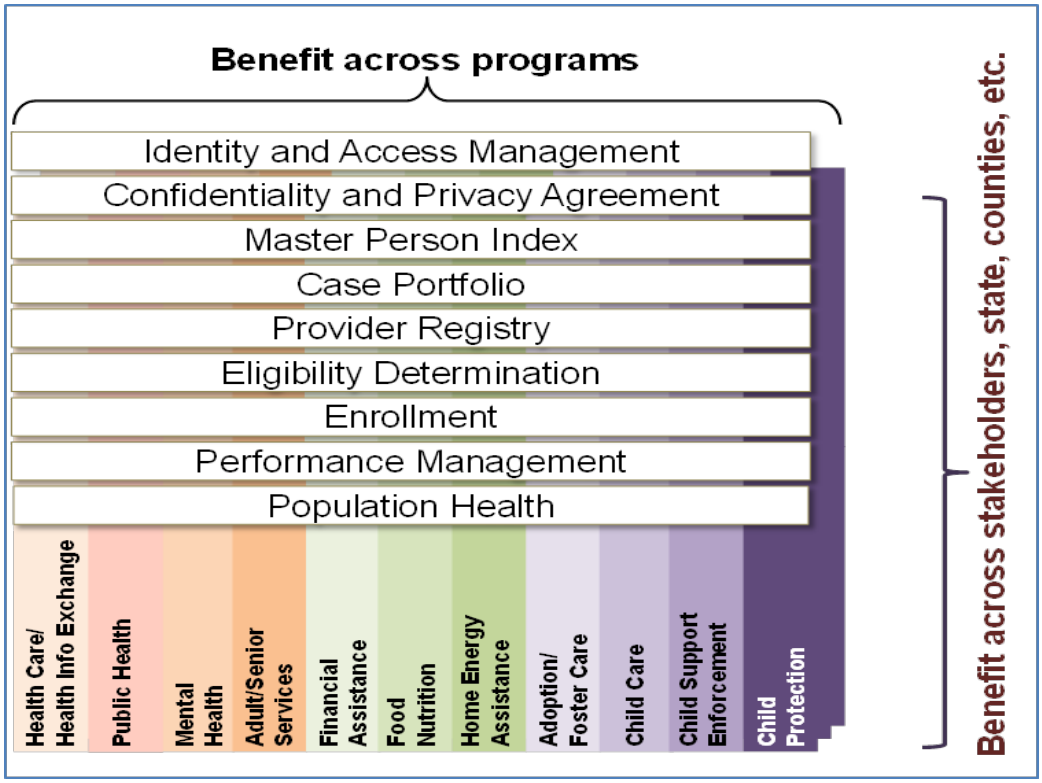

Figure 10 Common Processes, Shared Capabilities, and Shared Information Benefit Everyone

The California Child Welfare Council expressed their views regarding **shared information,** the process of information sharing, and data standardization by issuing this statement:

> *"The Council recommends and urges all information technology efforts involved in the exchange of information regarding children and families served by the child welfare system to:*
>
> - *Establish a common data element vocabulary;*
> - *Promote the development, sharing, use, and reuse of information technology processes, applications, data structures, and infrastructures required to enable data exchanges;*
> - *Use common frameworks and models, such as the Service-Oriented Architecture (SOA) model, to encourage flexible applications;*

- *Use interoperable standards developed and maintained by Federal entities and intergovernmental partnerships, such as the National Information Exchange Model (NIEM) standard, as the basis for information exchanges; and*
- *Use common or uniform confidentiality/privacy agreements consistent with Federal and State laws."*[8]

State and county IT initiatives, systems, and programs should adopt the same philosophy to support interoperability and improve outcomes.

Core capabilities provide foundational capabilities or information. They are building blocks to implement broader functional capabilities. Core capabilities are candidates for early implementation. Core capabilities include those that:

- Provide a foundation for interoperability (among programs, agencies/organizations, and jurisdictions). Interoperable systems share information and IT services to efficiently deliver integrated health and human services to the client community. Interoperability can be achieved via the design and implementation of systems compatible with MITA and NHSIA, which define the principles, standards, IT services, security, and interfaces to be followed by the component elements within the total system of systems. As one example of interoperability, the foundation should provide user identity management to allow information system users to access the tools and information they need across multiple systems via a single set of credentials.
- Find and get basic and/or summary information about key entities (e.g., person, case, provider, and program) to improve information sharing and enable improved delivery of health and human services;
- Verify information against authoritative sources to support eligibility, enrollment, and other program-related rules;
- Collect, aggregate, and analyze key operational performance information across programs, the agency, departments, organizations, and jurisdictions to improve effectiveness and efficiency.

[8] http://www.chhs.ca.gov/initiatives/Olmstead/Documents/CaliforniaChildWelfareCouncil_2012DataStatement.pdf

A key early step to improve the current situation would be to put in place a shared **service-oriented architecture** infrastructure; see Figure 11.

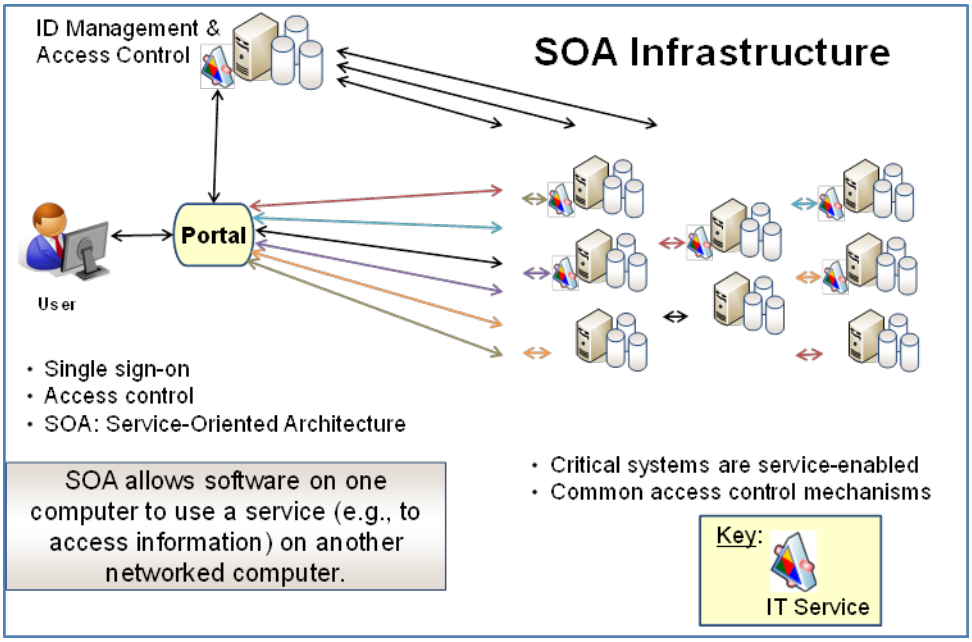

Figure 11 Foundation: Service-Oriented Architecture (SOA) and Identity Management

A service-oriented architecture allows software on one computer to use an IT service (e.g., to access case information about a particular client) on another networked computer. In tech-speak, this means software "consumes" an IT service and information that have been "exposed." The "infrastructure" we refer to is the hardware, underlying operating systems and other foundational software, and networks where the users' software applications and data reside. To start, it may be that only a few critical systems are service-enabled. The concept here is an end-state in which modernized systems are sharing the underlying infrastructure and IT services.

Figure 12, from California's Enterprise Architecture Framework (CEAF), illustrates the components of SOA.

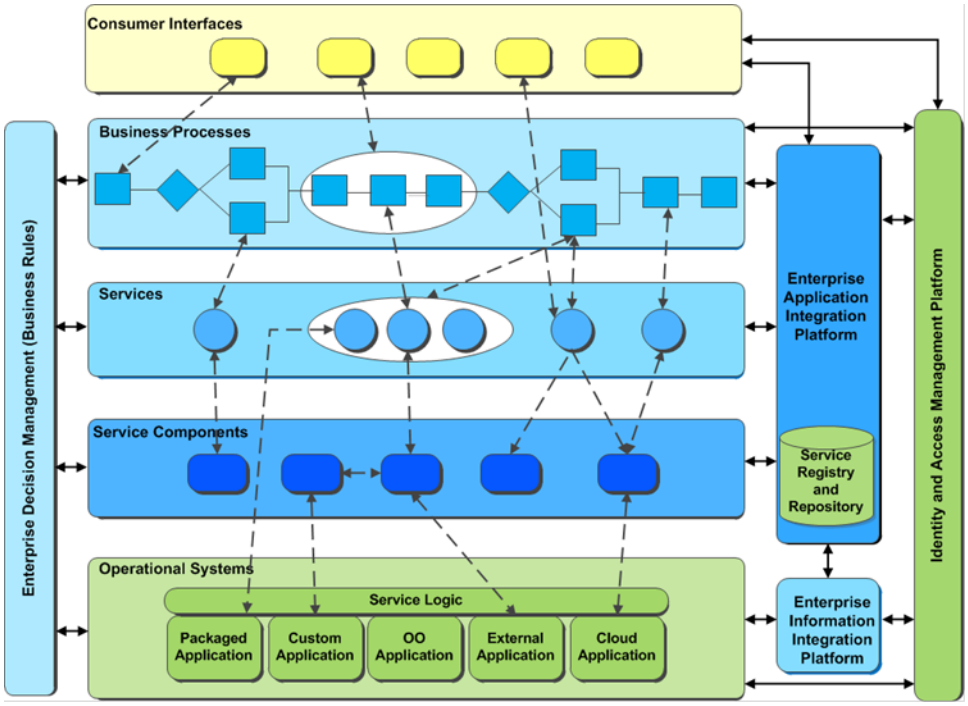

Figure 12 Components of SOA[9]

Please see the source CEAF document for definitions of terms used in the diagram.

Systems across the state require **identity management and access control**. This idea was raised often during committee discussions. Implementation should provide mechanisms to authenticate users who will access the environment, authorize their admittance into the environment, and control the applications and information to which those individuals have access. Typically, that would include single sign-on and controlled access to information and systems based on attributes (role, organization, etc.) of the user.

Stakeholders should establish a common trust environment approach across all CHHS elements. This effort should align with the state-level enterprise architecture. One model to consider is the California Department of Health Care Services Health Information Exchange trust environment for exchange, defined by:

[9] From: CA Enterprise Architecture Framework. Service-Oriented Architecture (SOA). Reference Architecture (RA) Overview, Draft Version 0.1, January 2013.

- A set of policies for establishing and recognizing organizational and individual identities,
- Operational procedures for how to provision, manage, monitor, and revoke identities, and
- Technical services to support discovery of communication services and verify identity.

    - Directory Services establish a mechanism to identify technical services of exchange partners. Likely to use a decentralized, federated approach.
    - Trust Services establish the identity of exchange entities and individuals.
    - Build these services on existing and emerging standards.[10]

California's Identity and Access Management Reference Architecture illustrates key components of an identity and access management solution; see Figure 13.

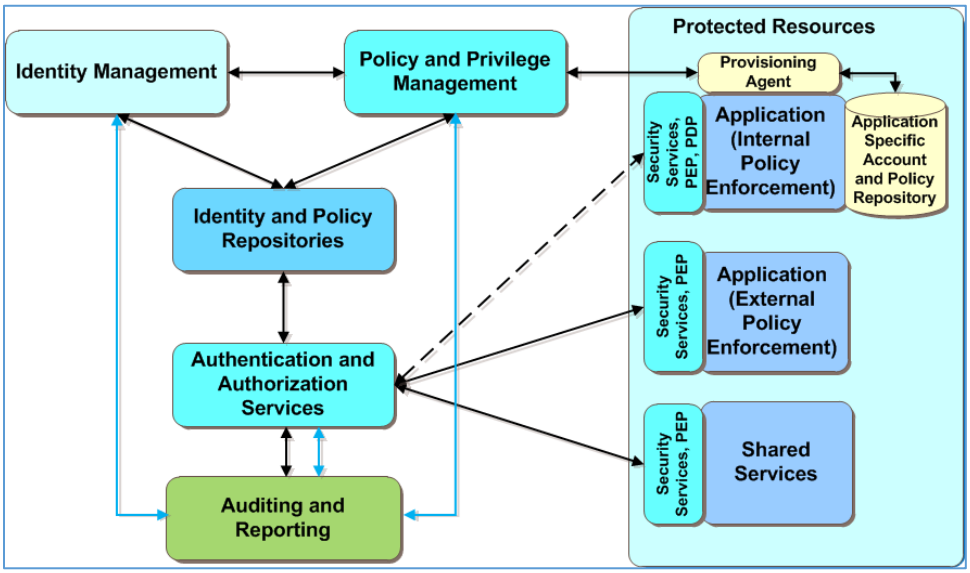

Figure 13 Components of an Identity and Access Management Solution11

The Global Reference Architecture (GRA) defines the Global Federated Identity and Privilege Management (GFIPM) model for **identity management and access control**. NHSIA has adopted the principles of the GRA's Global Federated GFIPM approach. Following the GFIPM model, jurisdictions can communicate a standard set of elements and attributes about a federation user's identities, privileges, and authentication.

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[10] From: CA Health Information Exchange (HIE) Strategic and Operational Plan (SOP) 2012-10-26. 1.5.2.1 Trust Environment

[11] From: CA Enterprise Architecture Framework. Identity and Access Management (IdAM). Reference Architecture (IdAM RA) Overview, Draft Version 0.1, December 2012.

"The GFIPM metadata and framework support the following three major interoperability areas of security in the federation:

- *Identification/Authentication - Who is the end user and how were they authenticated?*
- *Privilege Management - What certifications, clearances, job functions, local privileges, and organizational affiliations are associated with the end user that can serve as the basis for authorization decisions?*
- *Audit - What information is needed or required for the purposes of auditing systems, systems access and use, and legal compliance of data practices?"*[12]

Orange County and Los Angeles County shared their experiences implementing GFIPM with the committee. Both found the model useful and agreed that standards are important. Orange County reported that the vendor community software is still somewhat immature (in terms of meeting the standards). Los Angeles County added that significant resources (financial and staff skills) are required to implement GFIPM.

Once a service-oriented architecture is in place, it provides an environment for **shared IT services**. NHSIA suggests that it is useful to think about IT services as common, core, or custom; see Figure 14.

- ***Common IT services*** support cross-jurisdiction information sharing and/or cross-program or department information-sharing
- ***Core IT services*** are a foundational subset of the common IT services that enable a basic level of interoperability.
- ***Custom IT services*** are the other services that jurisdictions will implement to support their own human services operations.
- Establish service-level agreements (**SLAs**) to share core and common services. Manage through **governance** processes.

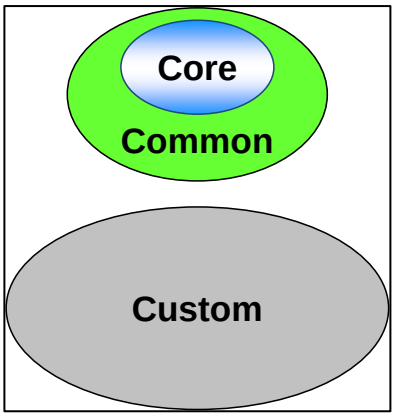


Figure 14 Shared IT Service Classification

The requirements for core capabilities stated earlier suggest foundational **core IT services** in these categories:

- Identity management and access control.
- Master Person Index (MPI). To locate records about persons in health and human services systems.

[12] Global Federated Identity and Privilege Management, accessed August 1, 2013.

- Person. To share basic information about a person.
- Verification of person information. To verify information about the person from local and/or state authoritative sources.
- Case. To share summary information about cases related to persons who are receiving or have received health or human services.
- Summary of cases. To share a summary of cases (potentially, gathered from different organizations and associated with different programs) related to a person.
- Program information. To share local-level or state-level information about health or human services programs, including reporting local-level performance information to the state level or state-level performance information to the federal government.
- Provider registry. To locate records about health and human service providers.
- Provider. To share basic information about health and human service providers.
- Verification of provider information. To verify information about the provider from local- or state-level authoritative sources.

Common IT services are also shared; custom IT services may also be shared or may be used within a department or jurisdiction. Sharing IT services requires establishing an environment where one partner can "consume" a service "exposed" by another partner. Hubs can enable IT service sharing and information exchange. Deploying **hubs** and core services will enable IT service sharing and information exchange.

Figure 15 shows where the **hub concept** fits into the county or agency environment. The large outer white box represents the collection of all the IT environments that are involved with supporting health and human services in the county or agency. It includes all aspects of all IT environments, both legacy elements and those deployed to support improved interoperability. It includes the service-oriented environment as well as others that are not service-oriented. The middle light blue box is the service-oriented IT environment. It is a subset of the county/agency health and human services IT environment. The SOA IT environment (medium-sized inner box) provides the ability to request IT services from local and distributed components and manage the results. It includes IT services, applications, and databases that are shared within the county/agency. The blue circle contains the hub. It is a subset of the health and human services SOA environment. The hub is used to host services, applications, and information to be shared externally. The hub may also contain other elements that are only shared internally.

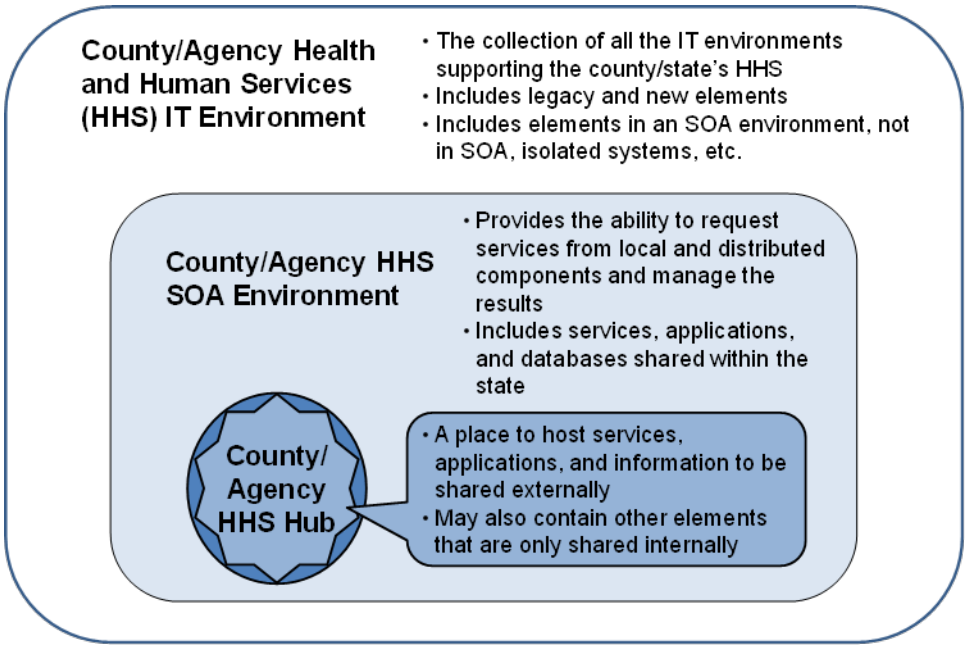


Figure 15 Notional IT Environment for a County or the Agency

Figure 16 illustrates the virtual linking of hubs.

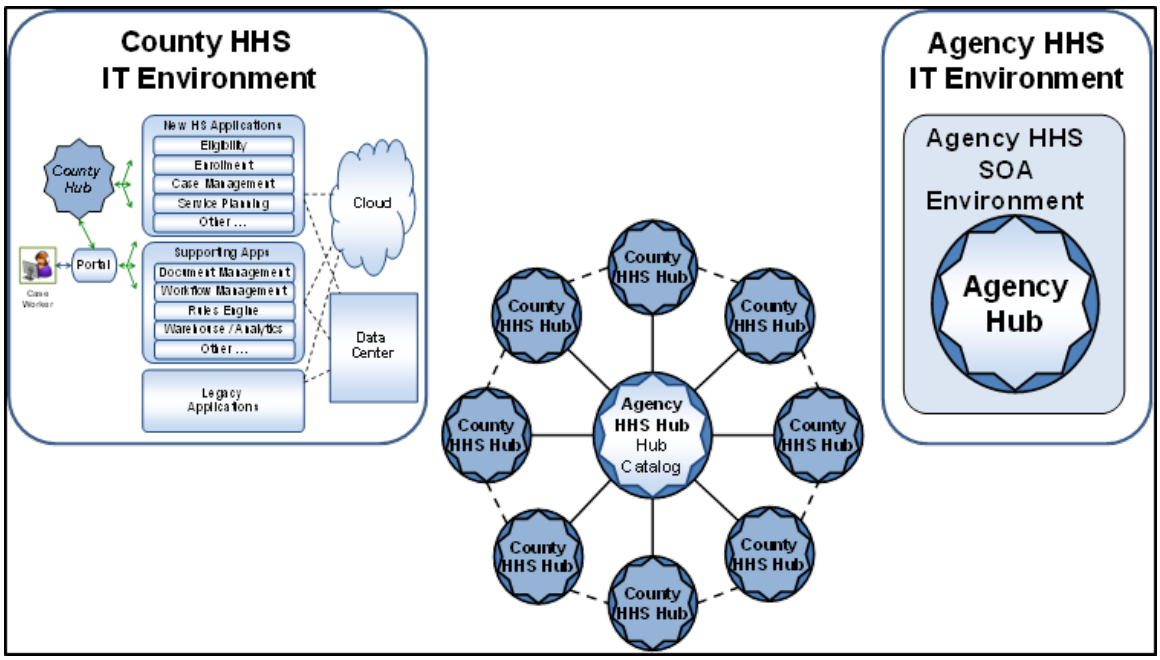


Figure 16 Hubs Enable IT Service Sharing and Information Exchange

This figure shows hubs at the county and state levels. If all the hubs know about each other, then the IT services each hub exposes can be accessed by authorized users.

A **shared infrastructure** can reduce complexity, reduce cost, and improve performance for users. Figure 17 illustrates one architectural option for sharing infrastructure.

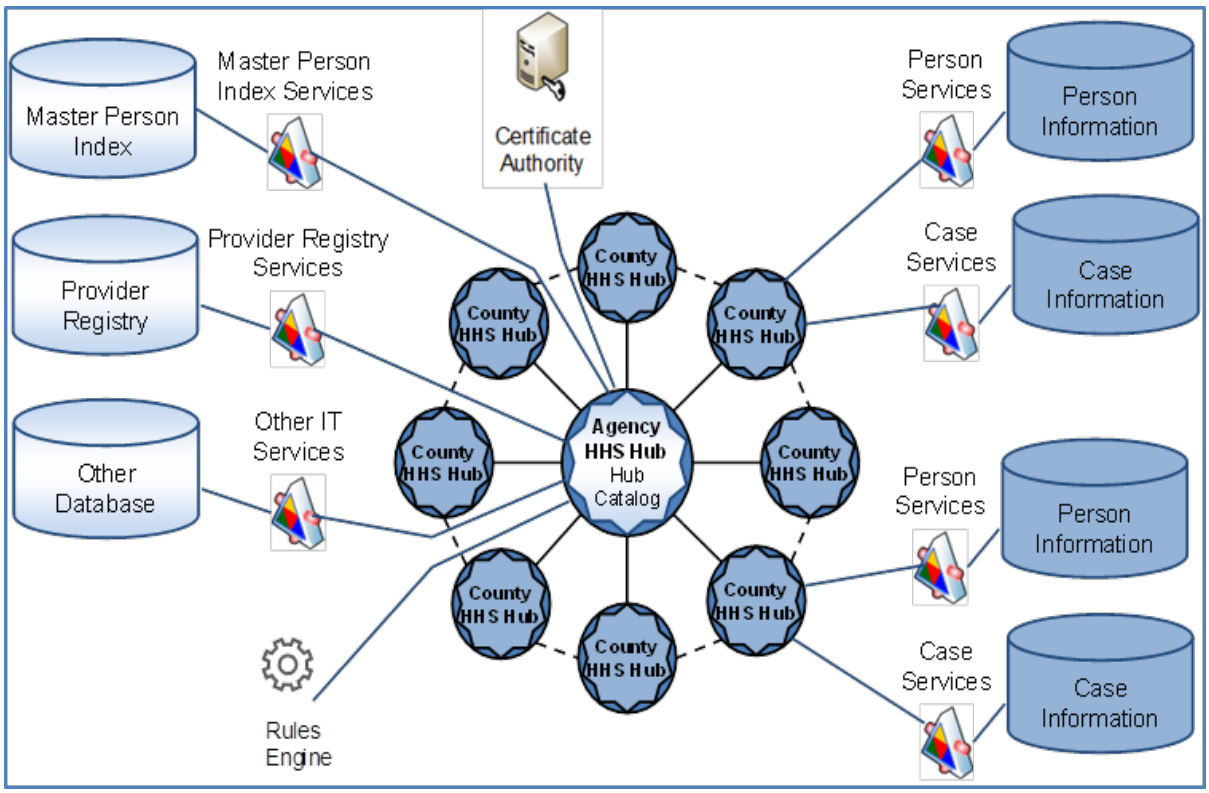


Figure 17 Shared IT Infrastructure to Support Multiple Users, Systems, and Datasets

In this model, master person index, provider registry, and identity management services and related databases are shared at the agency level. Data about persons and cases are managed at the county level. Hubs and enterprise service buses link systems and users. CHHS and the counties should collaborate to determine what architectural approaches are practical for sharing infrastructure.

NHSIA promotes the idea of **collecting metrics and** producing **analytics** during routine operations for fraud detection and comprehensive performance assessment. Notionally, this begins with capturing key indicators in performance information repositories as shown in Figure 18. For example, data services would support capturing indicators collected as part of case management operations. It may be appropriate to have performance information repositories at the county, agency, and federal levels.

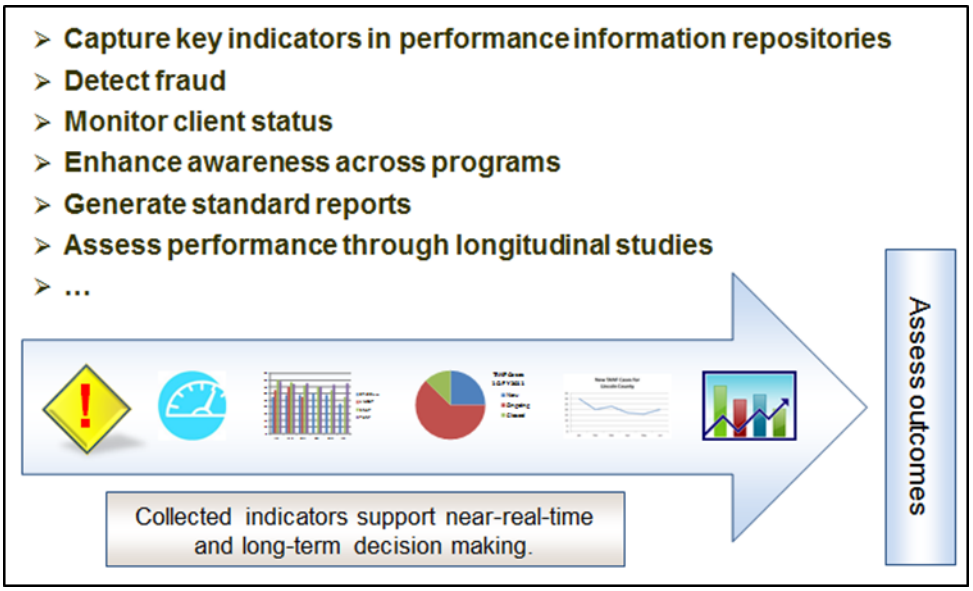


Figure 18 Collect Metrics during Routine Operations for Fraud Detection and Performance Assessment

Key indicators can be used for many different purposes: For instance, they can be used to

- Detect fraud in near-real time. This contrasts with checks that are done today infrequently via batch jobs.
- Enhance awareness across programs. For instance, a worker in one program could easily see that there is an open case for his client in another program.
- Monitor client status.
- Generate standard reports
    - Common vocabulary, information exchanges, and reporting services enable streamlined reporting and access to program data as needed
- Assess performance by looking at outcome data from multiple programs through longitudinal studies

The concept is that collected indicators can support near-real-time (e.g., business rule processing) and long-term decision making to assess outcomes.

Timeline of activities for all concepts

- **Within 6 months:** Education and outreach about the concepts. The education and outreach should be directed towards staff members who are involved with business processes, information management, and all phases of the system development lifecycle. Material used in the NHSIA/MITA tutorial webinars may be a useful starting point.
- **6 months – 2 years:** For active projects, identify how to implement (perhaps, selected) concepts. Review those plans in the governance process.
- **More than 2 years:** Develop a plan for full implementation for all projects. Follow the formalized governance process for reviewing projects to ensure that they are implementing the key concepts.

3.2.2.1.3 Consider Adopting Standards and Key Concepts at Every Opportunity

Recommendation: Consider adopting the standards and key concepts at every opportunity. Examples of "opportunities" include major procurement, minor enhancement, bug fix, and system upgrade.

For the standards and concepts to gain traction, stakeholders should take advantage of opportunities to improve systems throughout the lifecycle. Whenever a change is in the planning stage, or when maintenance is scheduled, staff members should review not only the national standards but also all the key concepts identified in Recommendation 3.2.2.1.2. Implementing standards and key concepts is likely to be evolutionary. It does not need to be an "all or nothing" process. When standards and key concepts are considered as part of routine maintenance activities, it is more likely that implementation will be accelerated across systems at both the state and county levels.

It is equally important to plan to adopt standards and key concepts as part of any procurement process. Proposal requirements should include reference to the standards and key concepts. Evaluation criteria should include evaluating responses for how well they address key concepts and embrace standards.

Timeline of activities

- **Within 6 months:** Education and outreach about the concepts, tailored and focused on different aspects to consider depending on the nature of the opportunity. The education and outreach should be directed towards staff members who are involved with project planning and/or system operations and maintenance.
- **6 months – 2 years:** Follow the formalized governance process to consider the standards and concepts at every opportunity.

3.2.2.1.4 Build on Lessons Learned

Recommendation: Build on lessons learned from SSIIP proof of concept demonstrations, ongoing/upcoming CHHS projects, Federal projects, California counties' efforts, other California agencies, and other nationwide or industry organizations.

Improving interoperability can be accelerated by building on the lessons learned across the state and the nation. The committee identified several key areas to watch for applicable lessons:

- The Psychotropic Medication Authorization proof of concept demonstration required vendors to propose solutions that support interoperability among the systems used in the demonstration. The solutions were consistent with, and built on, NHSIA and standard information exchanges. The demonstration integrated information from multiple sources to populate the forms.
- Section 3.2.2.2 identifies several ongoing or upcoming CHHS projects that should be evaluated for lessons learned.
- Several Federal projects are addressing interoperability. Some provide specific guidance for states.

    - The US Department of Health and Human Services (HHS) is engaged in a number of interoperability initiatives. On the human services side HHS has the Human Services Domain in NIEM, NHSIA, toolkits for interoperability and confidentiality, Data Exchange Standards for Standard Data Act Legislation, Office of Management and Budget (OMB) Human Services Partnership Innovation Grants, and other activities. Under the Partnership Innovation Grants, ACF awarded grants to seven states, including the one which funded this project, for State Systems Interoperability and Integration Projects. The states should continue to share results and lessons learned from those projects.
    - On the health side, HHS has MITA, provisions of the Affordable Care Act that relate to interoperability, Health IT, Health Information Exchange, Electronic Health Records (EHRs), Meaningful Use and other activities.
    - The National Institute of Standards and Technology (NIST) researches and publishes standards and guidance related to Information Technology (among many other topics). Of particular interest to these efforts: computer security, cloud computing, and the National Strategy for Trusted Identities in Cyberspace (NSTIC).

- Several counties and other agencies in California have implemented or are planning to implement solutions that improve interoperability. County participants in the project committees shared their ideas and experiences. Specific suggestions for leveraging their work and other agencies' efforts are included in section 3.2.2.2.
- Many nationwide organizations or initiatives provide rich resources to support interoperability.

    - NIEM is a Federal, State, Local, Tribal, and Private inter-agency initiative providing a foundation for seamless information exchange.
    - HL7 is an international organization of healthcare stakeholders with the vision of creating the best and most widely used information exchange standards in healthcare.
    - APHSA (American Public Health Services Association). The National Workgroup on Integration issued technology guidance for State HHS leaders, business model guidance, a report that identifies critical success factors for agency transformation, and a series of webinars on health and human services interoperability and integration.
    - NASCIO (National Association of State Chief Information Officers) has a wealth of information about best practices, information management, and technology policy. Recent publication topics include cloud computing, identity and access management, collaboration initiatives, cyber-security, and enterprise architecture.

Timeline of Activities

- **Within 6 months:** Identify lessons already learned that are of most value for interoperability. Start by reviewing the initiatives/projects listed above. Document a process for capturing lessons learned.
- **6 months – 2 years:** Determine how to apply those lessons. Document a planning process to incorporate lessons learned.
- **Ongoing:** Continue to follow the processes to watch for lessons learned and determine how to apply them.

3.2.2.1.5 Integrate Health and Human Services Architectures

Recommendation: Integrate health and human services enterprise architectures for interoperability. Stay consistent with the California enterprise architecture framework and reference architectures.

The California Department of Technology provides state leadership for IT programs.

> *"The development, use and maintenance of Enterprise Architecture in the State of California is planned to use a federated approach. In this approach, individual state agencies are responsible for developing, using and maintaining their respective Enterprise Architectures while utilizing the framework, method, guidance, standards and reusable assets, which are provided by the state's Enterprise Architecture Office.*
>
> *To reduce duplication, redundancies and complexity, and to promote shared solutions including shared technology platforms, shared services and shared enterprise business applications, it is necessary to undertake Cross-Agency Initiatives (CAIs) to build/harvest such solutions. The state Enterprise Architecture Committee and the state's Enterprise Architecture Office are conduits to the identification of such CAIs along with other collaborative groups such as the ITC and the Project Oversight. Once CAIs are identified, approved, and sponsored by authorized executives, the architecture work for those CAIs is planned to be accomplished through collaboration under the direction of a designated executive sponsor.*
>
> *The resulting architectural solutions will be leveraged by state agencies and are integrated with their respective target enterprise architectures by the agency architects.*
>
> *Successful implementation of the federated approach, to achieve business outcomes that matter, requires consistent understanding of enterprise architecture concepts, laser focus on creating business-outcome-driven*

actionable EA deliverables, and uniform implementation of EA programs within and across state agencies."[13]

Within CHHS, the Office of Systems Integration's "mission is to procure, manage, and deliver technology systems that support the delivery of health and human services to Californians." [14] OSI provides best practices guidance to manage large-scale IT projects.[15]

Within CHHS, the Department of Social Services (DSS) has established a position (Assistant Director for Horizontal Integration) to analyze "the opportunities for interoperable and integrated health and social services in light of California's implementation of federal health care reform."[16]

Within CHHS, the Department of Health Care Services (DHCS) has drafted a vision for transforming and innovating to achieve its commitments. The vision strategy drawing depicts a future architecture at MITA maturity levels 3-5.[17] As part of that strategy diagram, the department illustrates cross-cutting interactions and services while focusing on the business, information, and technical architectures.

Counties also develop architectures to guide their systems and IT procurements.

All of these activities provide rich sources of ideas for how the health and human services architectures could be integrated. Initial members of the IT committee used the DHCS architecture diagrams and NHSIA information as the foundation for beginning the process of integrating California's health and human services architectures.

[13] http://www.cio.ca.gov/wiki/Enterprise%20Architecture.ashx

[14] http://www.osi.ca.gov/index.shtml

[15] http://www.bestpractices.osi.ca.gov/

[16] http://techwire.net/dondro-departs-technology-agency-as-external-affairs-director-for-dss-assistant-director-position/

[17] http://techwire.net/wp-content/uploads/2013/05/May31Presentation.pdf

Draft Architecture Illustrations (Appendix D) shows the results of those preliminary efforts. The material is in draft form and will require significant effort from many other stakeholders to reach a vision for truly integrating health and human services architectures. Outputs from the counties' architectures, other departments' architectures, and state-level enterprise architecture framework and reference architectures should inform the effort.

Timeline of Activities

- **Within 6 months:** Evaluate emerging and existing agency, department, and county architectures, state-level EA framework, and state-level reference architectures. Look for synergy, compatibility, differences. Propose and plan adjustments; propose an approach for integration and improved system interoperability.
- **6 months – 2 years:** Adjust and integrate the architectures. Test the revised approaches through use of the architecture in the governance process and related projects.
- **More than 2 years:** Follow the formalized governance process to use the integrated architecture. Accommodate the "living" nature of the architecture.

3.2.2.1.6 Implement Actions for Specific Initiatives/Systems

Recommendation: Implement identified short-, medium-, and long-term actions associated with specific initiatives/systems. Note that this list revises what was proposed in the May 2013 symposium's final breakout session. Items related to other recommendations are shown in those sections.

Timeline of Activities

- **Within 6 months:**

- Influence the Child Welfare System-New System (CWS-NS) procurement document.

    - Include NIEM standards
    - * Include linking to California Healthcare Eligibility, Enrollment, and Retention System (CalHEERS) and other eligibility systems *
    - Include common eligibility
    - Include SOA

    Note: The procurement team already plans to include all but the item marked *

- Give child welfare workers access to systems that hold health, immunization, and other data used to determine eligibility for other programs like Medicaid. Implement automated referral for Medicaid.

- **6 months – 2 years:**

- Develop a common approach for how to address security, including the level of granularity of data access and control.
- Develop "blue button" for clients, to let them view and export their own health and human services information. Start with this for older foster children.
- Identify what data need to be shared, with whom, and when.

➢ **More than 2 years:**

- State and county systems integrate with statewide Health Information Exchange. This will require adherence to standards so that information can be shared.
- Integrate consortia systems. SAWS (Statewide Automated Welfare Systems). LEADER (Los Angeles Eligibility Automated Determination, Evaluation, and Reporting system) and the LEADER Replacement System, C-IV (Consortium-IV), and CalWIN (California Work Opportunity and Responsibility to Kids Information Network). Integrate the systems. Plan for SOA, use of standards for information sharing, linkage to CalHEERS, common eligibility.

3.2.2.1.7 Focus on High-Priority Common Processes/Capabilities

Recommendation: Focus on high-priority common processes/capabilities

Improving interoperability involves recognizing that there is much commonality across business processes. Figure 19 illustrates this idea. The committee color coded the horizontal bars in the diagram (originally shown as Figure 10) to indicate priorities across the business processes and related IT capabilities.

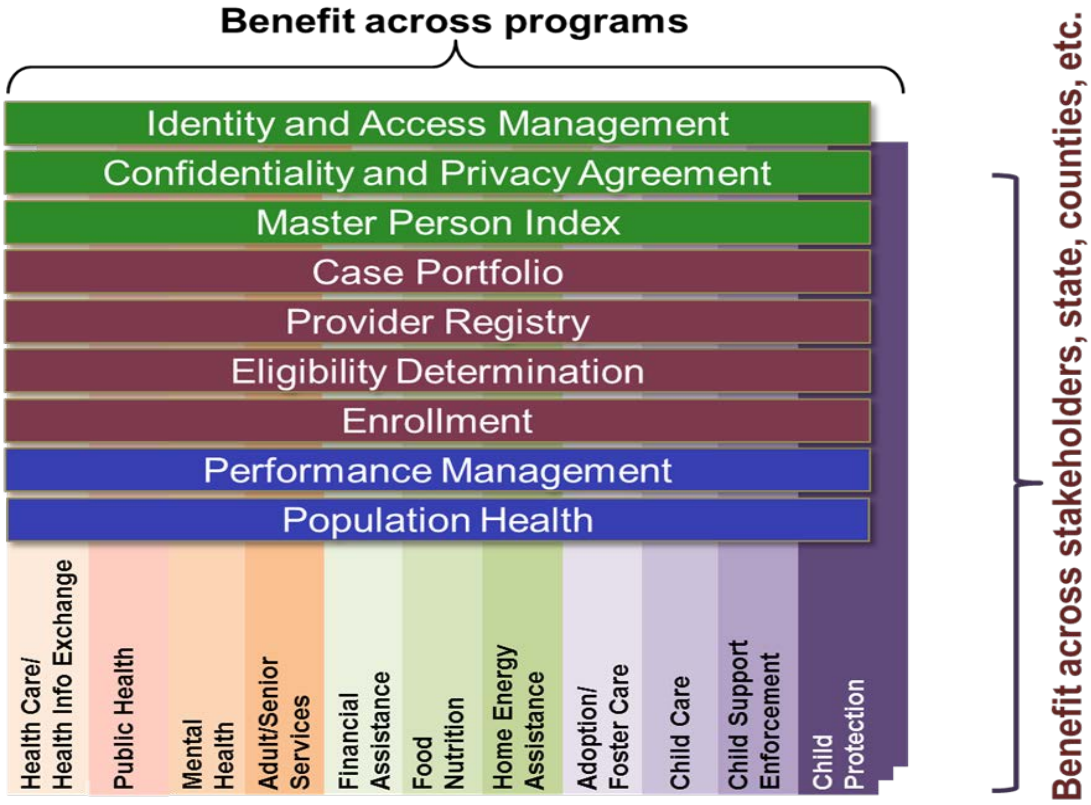


Figure 19 Priorities for Common Business Processes/Capabilities

Green horizontal bars represent the highest-priority processes/capabilities. These include identity and access management, confidentiality and privacy agreement, and master person index. These are ranked highest-priority because they establish a core base of capabilities that is needed as a foundation for the other processes and capabilities.

Purple horizontal bars represent the next level of priority, designated for mid-term action. These include capabilities that build on the core: case portfolio management, provider registry, eligibility determination, and enrollment. Both NHSIA and MITA define these as areas for common processes. Implementing capabilities to support these processes will enable improved operations across many program areas.

The committee found that, while also important, action to standardize performance management and population health processes (blue horizontal bars) is of lower priority than the other processes shown.

Timeline of activities

- **Within 6 months:** Focus on identity management and access control, confidentiality and privacy agreements, and master person index to establish a core/foundational base of capabilities. Test the solutions using the SSIIP Proof of Concept use case.
- **6 months – 2 years:** Build on the core. Focus on case portfolio management, provider registry, eligibility determination, and enrollment. This scheduling should enable California to take advantage of favorable 90/10 funding associated with the Affordable Care Act.
- **More than 2 years:** Continue to build on the core and initial capabilities and address performance management and population health processes. Stakeholders should keep these longer-term objectives in mind in the earlier phases and plan strategies and solutions that will easily accommodate them.

3.2.2.1.8 Focus on High-Priority Information Exchanges

Recommendation: Focus on high-priority information exchanges to support the high-priority common processes/capabilities.

Although the committee did not identify specific information exchanges, the group offered this guidance: High-priority information exchanges are likely to be related to basic entities (e.g., person, provider, or case). The exchanges should include the minimum categories of data (e.g., contact, demographics, health; credentials, affiliations, performance; case plan, case entry) necessary to satisfy specific business needs. Stakeholders should use scenarios to explain the context for required information sharing.

Timeline for Activities

- **Within 6 months:** Considering all the other recommendations, identify a small set of high-value information exchanges for near-term standardization and implementation. Document a process for adopting standards and for specifying and implementing the exchanges.
- **6 months – 2 years:** Build on the lessons learned from the first set of standardized information exchanges. Identify additional exchanges. Test the specification and implementation process. Adopt a standard dictionary.

- **More than 2 years:** Follow the formalized governance process for defining and implementing standard data exchanges.

3.2.2.1.9 Continue Collaboration

Recommendation: Continue collaboration among organizations that support health and human services across the state and counties to further interoperability

California's 58 counties are the primary governmental bodies that directly interact with families and individuals who receive human services. Public and private health care providers deliver health care. The courts, law enforcement, educators, transportation agencies, employers, and others affect the daily lives of those who receive health and human services. Maintaining an open forum for ongoing collaboration and cooperation will help to advance interoperability across the spectrum of stakeholders and improve the lives of the clients. The forum should include participants from state and local services agencies as well as those who receive services and others who deliver services. The forum should provide a means to identify high-priority concerns, exchange lessons learned, and work towards shared solutions to common problems.

IT committee members indicated that they need a forum to continue to exchange ideas, share artifacts, discuss plans, and build on lessons learned. In four meetings the group only scratched the surface of the interoperability iceberg. Counties look to the state to provide leadership on standards and interoperability. A collaborative forum will make it more likely that it will be possible to leverage the experiences of the counties and others that have already made good progress.

Timeline of Activities

- **Within 6 months:** Enlist sponsors and management support for a collaborative forum. Identify/establish the forum and, if not already available, a Web site to support it. Invite participants and organize materials. Schedule meetings on a regular basis. Collect topics for discussion using other recommendations for inspiration. Determine how to coordinate with related activities.
- **Ongoing:** Work on recommendations. Build partnerships. Solve problems.

3.2.2.2 Leverage Ongoing/Upcoming IT Initiatives

The IT committee identified several ongoing or upcoming IT initiatives that should be leveraged to further interoperability. In some cases, it would make sense to inject interoperability objectives into the initiatives. In others that already have strong interoperability aspects, the agency, departments, counties, and partners should maximize the value of the initiative for interoperability by reusing design, components, or other project elements.

The list of ongoing or upcoming IT initiatives to be leveraged for interoperability includes:

- Enterprise architecture activities at state, agency, department, and county levels
- Health Information Exchange (HIE) (for data exchange)
- CalHEERS (for eligibility and enrollment)
- LEADER Replacement System (for eligibility and partnerships)

- Alameda County dashboard (for data integration and business intelligence metrics)
- Orange County GFIPM and Juvenile Information Content Exchange (JUICE) (for identity management, access control, and data exchange)
- San Diego County Beacon activities (for education and outreach, common processes, data exchange, and partnerships)
- San Diego County Knowledge Integration program (for use of national framework to support data exchange within county, master data management)
- Los Angeles County master person index and GFIPM (for identity management, access control, master data management, and data exchange)
- CWS-NS (for general system modernization, data exchanges, and to link with eligibility and enrollment processes/systems)
- Medi-Cal Eligibility Data System (MEDS) (for general system modernization and data exchanges)
- CA Department of Motor Vehicles (DMV) (for master person index and identity management)
- CA IT capital planning process (for governance, leveraging other projects, education and outreach)
- California State Innovation Model (for identifying and capitalizing on innovation)

The committee recommended further investigation to determine the applicability of other possible initiatives:

- California's feasibility study reports for other candidates
- Unique student identifier
- State systems managed outside CHHS (e.g., educational, judicial)
- Federal hub (for shared components, eligibility data verification)
- Federal Parent Locator Service (leverage for child welfare and, potentially, other uses)

Capitalizing on work already accomplished or planned should make it easier to realize interoperability and may also reduce implementation costs.

3.2.3 IT Committee Recommendations / Next Steps

To summarize, the committee recommends the following near-term next steps (within the next 6 months

- Education and outreach about
    - National standards
    - Key concepts
    - Taking advantage of opportunities to adopt standards and key concepts
- Identify lessons already learned that are of the most value for interoperability. Start by reviewing the initiatives/projects listed in Recommendation 3.2.2.1.4. Document a process for capturing lessons learned.
- Evaluate emerging and existing agency, department, and county architectures, state-level EA framework, and state-level reference architectures. Look for synergy, compatibility, differences.

Propose and plan adjustments; propose an approach for architecture integration and improved system interoperability.

- Influence the CWS-NS procurement document.
- Give child welfare workers access to systems that hold health, immunization, and other data used to determine eligibility for other programs like Medicaid. Implement automated referral for Medicaid.
- Work on the core/foundational base of capabilities (identity and access management, confidentiality and privacy agreements, master person index). Test the solutions using the SSIIP Proof of Concept use case.
- Considering all the other recommendations, identify a small set of high-value information exchanges for near-term standardization and implementation. Document a process for adopting standards and for specifying and implementing the exchanges.
- Enlist sponsors and management support for a collaborative forum. Identify/establish the forum and, if not already available, a Web site to support it. Invite participants and organize materials. Schedule meetings on a regular basis. Collect topics for discussion using other recommendations for inspiration. Determine how to coordinate with related activities.

Table 7 Enterprise Architecture Recommendations and Figure 3 Merged Interoperability Roadmap summarize the near-, medium-, and long-term timelines of activities for all the recommendations.

The committee recognizes that its recommendations may be daunting to some. It suggests these are the highest-priority activities:

- Education and outreach;
- Work on foundational capabilities:
    - Identity management and access control,
    - Confidentiality and privacy agreements, and
    - Master person index;
- Continue collaboration to maintain the committee's momentum;
- Build on lessons learned and leverage what has already happened or is starting to happen across the state; and
- Gain executive buy-in across the agency, departments, counties, and other partners. We can succeed if we work together.

3.3 Legal and Confidentiality Change Driver

The State Systems Interoperability and Integration Project (SSIIP) Legal and Confidentiality Committee drafted a Privacy and Confidentiality Framework to address and help overcome barriers to sharing or exchanging necessary and relevant data/information in the administration of public programs under the purview of the California Health and Human Services (CHHS) Agency. In the course of the committee's work on the Framework, members also:

1. Drafted key elements for interagency data sharing agreements;
2. Developed and administered an Interoperability Survey to identify specific areas in which there have been denials of, or barriers to, sharing or exchanging data/information, aka interoperability; and
3. Reviewed and provided feedback on the Governance Model structure and roles/responsibilities related to privacy and confidentiality.

Please note that the SSIIP Legal and Confidentiality Committee will be absorbed within the Governance Model structure, once formally adopted, and renamed the Agency Legal and Privacy Committee. It will include some of the same members.

3.3.1 Legal Committee Purpose

The SSIIP Legal and Confidentiality Committee's charge was to draft a ***Privacy and Confidentiality Framework*** that would be incorporated into the CHHS Interoperability Plan and would focus on:

- Identify top priorities to legally enable data-sharing throughout CHHS programs that can realistically be initiated in the short and long-term. Priority should be given to developing legal protocols for data-sharing agreements associated with the POC, including but not limited to social worker access to other systems used to authorize payments for the medicines, including psychotropic medications, administered to foster children.

- Establish a written Privacy and Confidentiality Framework that would address short (up to six months), medium (up to two years), and long-term (beyond two years) data-sharing requirements, conditions, and permissions for Agency departments. This Framework should be constructed in consultation with the other SSIIP Committees.

- Beginning with the current Proof of Concept (POC), Administering Psychotropic Medications to Children in Foster Care (and Request for Demonstration) and expanding to other CHHS programs thereafter, research federal and state laws regarding subject matter data and information to be shared. Determine whether the subject matter data and information is protected and confidential, so that sharing across agencies and programs is prohibited under current law, state regulation, and/or administrative policy.

The May 2013 Symposium helped to establish the "As-Is" landscape of data silos among CHHS departments and promoted the "To-Be" vision of interoperability consistent with ACF three goals:

improvement in client service delivery, reduction in errors/integrity improvement, and improvement in administrative efficiency.

3.3.2 Legal Committee Deliverables

The role of CHHS departmental lawyers' efforts toward achieving system interoperability and information sharing is to provide appropriate protections and critical information to achieve SSIIP goals. This committee provided a forum for legal leaders within the State who understand the importance of the information sharing initiative within CHHS, and that the agencies need the lawyers to help make it happen. Therefore, the SSIIP Legal and Confidentiality Committee developed the ***Privacy and Confidentiality Framework***, a formal process where subject matter and technology experts identify where unresolved interoperability barriers presented by a proposed project and to present suggestions to overcome them. The process includes reviewing federal and state laws and regulations, and agency policies and procedures, to determine any barriers or requirements for information sharing. To better exhibit concrete examples of legal barriers inhibiting data/information sharing, the committee developed an Interoperability Survey to help the initial inventory of program areas that will need to be addressed to enable "legally-permissible" system interoperability. This process of reviewing and evaluating specific issues will continue as part of the newly envisioned CHHS Governance Model, where the SSIIP Legal and Confidentiality Committee will yield its role to the newly formed Agency Legal and Privacy Committee. The Agency Legal and Privacy Committee will make recommendations to the Business/Information/IT Strategy Committee that will clearly identify the barriers, requirements, and suggested resolutions.

As part of this process, the Legal and Confidentiality Committee also recognized the need to draft appropriate notices of information sharing, authorizations, and transparent policies and procedures for clients to understand that information will be shared and how it will be shared and protected. Such notices and authorizations must be understandable and inclusive of any required language. The group is also committed to draft proposed state and federal legislation based on their experiences and will discuss with the Executive Governance Council the need to introduce and advocate for such legislation.

The SSIIP Legal and Confidentiality Committee drafted and approved the following mission and procedures as part of its draft ***Privacy and Confidentiality Framework***, to handle any future project requests under the structure of the Agency Governance Model.

3.3.2.1 Privacy and Confidentiality Framework

MISSION

Within the California Health and Human Services Agency (CHHSA) Governance Model, the Agency Legal and Privacy Committee is responsible for assessing all applicable inputs, privacy risks, issues, and complexities to ensure compliance with state and federal laws, regulations, policies, and standards related to effective and necessary data sharing. Where conflicts to data sharing exist, the committee examines relevant statutes and regulations and assists in developing CHHS protocols, policies and standards to remove or modify existing legal barriers to data sharing while ensuring compliance with federal and state confidentiality laws/regulations. The committee will be led by an appointed Agency

chair, with membership comprised of CHHS state department counsels, as well as county and federal legal representatives, as needed.

PROCESS

When barriers to sharing information cannot be resolved, the following is the process by which the Agency Legal and Privacy Committee reviews issues and develops recommendations:

1. A data sharing request is presented from a California Health and Human Services department or from outside state government. The request is submitted to the Agency Governance Liaison for processing to the Business/Information/IT Strategy Committee to determine the feasibility of the project. Once the Business/Information/IT Strategy Committee determines that the project is feasible, it refers the request to the Agency Governance Liaison.
2. The Agency Governance Liaison reviews the request and decides that it has merit and refers it to the Legal and Privacy Committee, as well as other committees as necessary, for review, consideration and recommendations.
3. The Legal and Privacy Committee is chaired by an Agency-appointed Chief Council and is comprised of the chief counsels from each of the CHHS state departments. The committee meets on an as-needed basis, whenever there is a matter to review.
4. The Legal and Privacy Committee requests member legal counsels of the agencies affected by the proposed interoperability project assign the question to subject matter experts in the legal areas. The Legal and Privacy Committee determines a time limit for the research and evaluation.
5. The subject matter and technology experts will research federal and state laws and regulations, and agency policies and procedures, to determine the following:
    a. Whether the specific data to be shared is confidential
    b. If not confidential, state requested data to be shared is not covered by the applicable laws' confidentiality provisions
    c. If confidential, specify the legislative provision (by citation and the specific language) that states requested information is confidential
    d. If confidential, specify the manner under law that permits the sharing of the information
    e. If the law does not specify whether requested data is or is not confidential, the subject matter expert shall make a recommendation as to whether or not to proceed. Options will be developed regarding the specified approach, including sufficient risk mitigations, and how best to implement in coordination with the Business/Information/IT Strategy Committee.
6. Once the appropriate subject matter experts are finished, they provide their written findings to the Legal and Privacy Committee prior to a meeting.
7. At the Legal and Privacy Committee meeting, the subject matter experts present their findings and answer questions raised by the committee members.
8. The Legal and Privacy Committee reviews and debates the findings and recommendations and determines its final recommendations.

9. The Legal and Privacy Committee may request additional research and recommendations from the subject matter and technology experts.
10. The recommendations of the Legal and Privacy Committee will be sent to the Business/ Information/IT Strategy Committee for review.
11. If the Business/Information/IT Strategy Committee disagrees with the Legal and Privacy Committee's recommendations, the Business/ Information/IT Strategy Committee returns the question to the Privacy and Legal Committee for further research and review.
12. If there is a continuing disagreement between the Legal and Privacy Committee and Business/ Information/IT Strategy Committee, the matter and its findings will be sent to the Executive Governance Council for final resolution and action, as appropriate.

3.3.2.2 Data Sharing Agreements and Key Elements

The SSIIP Legal and Confidentiality Committee discussed the drafting of a prototype Memorandum of Understanding (MOU) or Interagency Agreement (IA) to be used between agencies to facilitate data sharing and, at the same time, meet all confidentiality and privacy requirements. (This was a cross-over issue with the IT and Governance Committees.) This discussion included researching and reviewing more than 50 governmental MOUs, both from within California and throughout the United States, to determine how information is being shared while protecting these individual rights.

The Legal and Confidentiality Committee concluded the need to draft a prototype MOU/IA within the next six (6) months which could be used as a starting point between departments planning to share information. The prototype MOU/IA would contain proposed language which, if applicable, the departments could use and if not applicable, the language would be removed from the actual MOU/IA (Appendix H MOU/IA Example).

The Legal and Confidentiality Committee agreed that the prototype MOU/IA should contain the following key elements:

1. Names of governmental entities entering the MOU/IA

2. Statement of recognition that the sharing includes confidential data

3. **WHY?** What is the legitimate governmental purpose for the MOU/IA? Why is it necessary?
    a. Necessary to provide services and resources required to meet the complex needs of particular populations
    b. Achieve continuous improvement across programs
    c. Make informed public policy decision
    d. Limitation of sharing and using information to legitimate governmental purpose
    e. Objectives to be achieved
    f. Benefits that both agencies will receive from this collaboration
    g. Fulfilling legal responsibilities of agencies, including the administration of the public services
    h. Benefits to the particular populations
    i. Description of how data acquired will assist in case management and or examination and analysis of the issues involved

j. Data will be shared only for the specific purposes and not for personal gain or profit

4. **WHAT?** Detailed description of the particular data sharing project and the specific data to be shared, including the specific need(s) for the data exchange
    a. Description of product or deliverables
    b. List of specific data that both agencies will exchange/share
    c. Set of specific confidentiality requirements for both agencies; regulations specific to an agency should be described

5. **WHEN?** Details of frequency of data sharing

6. **WHO?** Staff identification as to who will be responsible to send information
    a. Staff identification of access to the information and what specific information each staff level will have access to
    b. Read only or data entry/corrections capability
    c. Designated person from each agency to handle staff identification issues

7. **HOW?** Both the IT and the confidentiality requirements
    a. From confidentiality and privacy viewpoints, if there are legal barriers, how the barriers will be met
    b. IT systems involved
    c. Congruence of IT and legal requirements: including ownership of data; warehouse; cloud, etc.
    d. Each agency shall designate a contact person to be responsible for oversight and supervision of the security and confidentiality of the data and will be the agency liaison for this purpose
    e. Privacy provisions in place and how monitored
    f. Maintenance of confidentiality of client specific information received from other agency consistent with applicable confidentiality standards
    g. Safeguards against re-disclosure

8. **General MOU/IA Provisions**
    a. Term of MOU/IA
    b. Process for amendments
    c. Termination of MOU/IA
    d. Fiscal provisions (if applicable)

3.3.2.3 Legal Committee Interoperability Survey

To help better understand the landscape of potential interoperability issues facing organizations, SSIIP Legal and Confidentiality Committee members shared information and perspectives about data sharing barriers experienced by their respective organizations. To better validate some of those specific areas of policy or law restricting data/information sharing across organizations, the committee developed an Interoperability Survey document. CHHS department chief counsels have been selected as the preliminary recipients of the survey request sent out in early August 2013. A copy of that survey is found in Appendix F Legal Interoperability Survey.

As of the writing of this report, approximately half of the responses have been received, including results from Department of Social Services and Department of Health Care Services. Requests have been made for the remaining surveys to be completed and submitted. Several of the outstanding surveys require additional time while departmental counsels meet with program managers to discuss relevant issues. As they complete this internal work and the surveys are submitted, further analyses will occur to establish whether Agency engagement is necessary.

The responses to the surveys that have been received will be helpful to develop an agenda for legal issues to propose for further research. They are insightful as to existing barriers to information sharing and open to studied approaches in overcoming the barriers, while preserving the individuals' rights to privacy and confidentiality. It is interesting to see how "differing interpretations" of privacy laws contribute to the lack of sharing of important client data, in some cases inhibiting effective client services. It is clear that there is a need for common understanding of the intent of certain federal and state laws and regulations, in order to better serve health and human service clients and to achieve greater interoperability. Responses to the surveys have offered creative options to overcome certain barriers to the exchange or sharing of data/information that will be evaluated for viability, including potential changes to policies, regulations and statutes.

The survey results indicate an already-existing culture change to getting to "Yes" from the California health and human services legal community and the dedication to work together to achieve interoperability in a lawful manner. Upon completion, the survey will help the State to assess the landscape of conflicting legal interpretations and statutory restrictions preventing data/information sharing that impacts the efficient delivery of services to common clients within health and human services. Next steps and associated timelines will be dictated by findings of this survey, i.e. misinterpretation of privacy laws v. non-negotiable statutory protections that may require law change. Future interoperability progress will be driven, in part, by survey findings. Monthly Agency-led (HHS) departmental counsels' meetings will now include data/information sharing as a standing agenda item and will be the focus of the upcoming October 23, 2013 meeting.

3.3.3 Legal Committee Recommendations / Next Steps

During the first six months of SSIIP Plan submittal (and ongoing), the State will:

1. Adopt the Agency Governance Model for CHHS interoperability which will include a Privacy and Legal Committee as a standing committee of the interoperability process.

2. Adopt and utilize a Privacy and Confidentiality Framework for projects to be considered from a legal and privacy viewpoint and provide recommendations to stakeholders, the Governance Business/Information/IT Strategy Committee, and the Executive Governance Council.

3. Utilize the Interoperability Survey to establish and review the "canvas" of laws, regulations, policies and procedures to determine where there may be barriers that require immediate short-term remedies (arbitration of inconsistent legal interpretations) or long-term extraordinary remedies (initiation of new legislation)

4. Be inclusive by involving impacted stakeholders as part of the ongoing process of addressing issues to arrive at solutions that will enable more efficient health and human services data/information sharing, while ensuring continued privacy protections.

During the first six months to two years of SSIIP Plan submittal, the State will:

1. Initiate administrative alignment of differing legal interpretations of state and federal law that may create unreasonable barriers to interoperability.

2. Initiate federal and state statutory changes to unreasonable barriers to interoperability presented by current law.

During the subsequent two years after SSIIP Plan submittal, the State will:

1. Implement administrative and statutory changes as appropriate, to advance interoperability for CHHS clients.

3.4 Organizational Change Management Change Driver

The Organizational Change Management (OCM) Committee developed a repeatable change management process to be incorporated into the California's State Systems Interoperability and Integration Project (SSIIP) Plan. The change management roadmap provides guidance and templates to address the challenges that departments within the California Health and Human Services Agency (CHHS) face with any change, in this case sharing electronic data. The framework proposed in the original grant proposal – ADKAR – offers insights for change that include creating *awareness* for the need to change, the *desire* to change, knowledge of how to change, the *ability* to implement change, and finally *reinforcement* to keep change in place. The change management process described in this section of the SSIIP Plan uses the Human Services 2.0 (HS 2.0) Theory of Change methodology as the underlying framework to support change. This model addresses the concerns identified in the ADKAR model, and utilizes insights derived from generous input and feedback from hundreds of passionate leaders and practitioners of health and human services systems around the country. The OCM Change Roadmap is intended to be customizable for each department within CHHS and includes:

1. **Stakeholder Analysis** – identify key individuals, assess their stance on interoperability, and cultivate champions to promote, advocate, and support changes needed to move interoperability forward
2. **Define Communication Plan** – utilize stakeholder input to develop and deliver communication strategies
3. **Identify Risk and Risk Mitigation Strategies** – administer HS2.0 Readiness for Change Survey; analyze results to identify risks and inform effective approaches to risk mitigation; determine desired behavior changes and provide supports to achieve.
4. **Develop Scorecard** – after identifying high level goals and hoped for outcomes, identify metrics to measure progress toward the desired outcomes; establish baseline and monitor.

The OCM Committee focused on creating a process for change, and as part of the roadmap produced two products that can be utilized directly: 1) a profile of desired characteristics of a champion and responsibilities of champions; and 2) a dashboard with metrics to measure progress towards organizational change.

3.4.1 OCM Committee's Purpose

The OCM Committee's primary purpose was to develop recommendations and draft an organizational change roadmap for data sharing across CHHS departments. A key step in the roadmap produced by the committee – Identify Risk and Risk Mitigation Strategies – uses the Human Services 2.0 Theory of Change methodology. The HS 2.0 approach to organizational change is an outcome-orientation designed to assess individual readiness in the areas of organizational, operational and technological competencies. By conducting a baseline assessment of individual needs, an organization can focus on elements of the framework to best meet their strategic and tactical goals and objectives. The assessment provides leadership with guidance on prioritizing efforts related to project plans and timelines, identifying development and investment priorities. The baseline information also provides a means to capture current capacity toward interoperability. The process includes the following:

- **Identify and highlight key drivers for interoperability**

  Where do organizational infrastructure and capabilities need to change to achieve interoperability?

- **Review survey for insights into individual readiness to change**

  Why is the change happening – is there truly a need for the change? Will our approach to change be successful? Does formal and informal leadership support this change? Do we have the wherewithal to accomplish this change? What are the personal motivators and organizational drivers that would cause me to support the change?

- **For prioritized drivers, document behavior changes required from staff**

  What knowledge, skills and behaviors are required during and after the change is implemented?

- **Develop a set of actions to support individual behavior changes**

  How do I demonstrate the ability to do my job the new way? What barriers may inhibit me making the change?

Addressing these questions while developing the SSIIP organizational change roadmap helped to provide the foundation for implementing changes associated with the SSIIP Plan. Strong leadership and structured effort will be important to support CHHS departments and their movement into a new and changing environment around system interoperability.

3.4.2 OCM Committee Deliverables

At the May Symposium participants understood the importance of clear and ongoing communications supporting workers as departments move forward with interoperability and integration. Participants also acknowledged that worker satisfaction, retention, and culture are key to successful transitions to new ways of doing business while meeting the responsibilities to both organization and its customers. The OCM Committee focused on identification of stakeholders, defining an effective communication plan, addressing and mitigating risks, and tracking progress through a goal-oriented scorecard as the foundation for the organizational change management roadmap. These products and the ultimate process engaged under the SSIIP effort is described below.

3.4.2.1 OCM Roadmap

The OCM Roadmap was created with the underlying belief that changing how work gets done requires a change in the value system of the organization. Changing value systems is adaptive work, not technical work. Technical challenges can be defined as challenges that can be defined and solutions are known. Adaptive challenges can be difficult if not impossible to define and solutions are not known. When adaptive challenges are addressed with technical solutions they are destined to fail. So addressing needed changes will require learning, and the roadmap facilitates that process. The OCM Roadmap is designed to utilize information from the organization to determine supports for individuals in their path forward, rather than a pre-determined set of steps dictating what will be required to guarantee the

desired changes. Gaining insight to determine supports requires two ways of knowing: quantitative information on how work will be affected by interoperability, and qualitative information to add richness and insight into how people will need to change the way work is done. Because all organizations are perfectly designed to get the results they're currently getting, realizing changes in performance requires a shift of the underlying infrastructure and culture of the organization.

The roadmap was designed to create learning opportunities to best address the adaptive challenges CHHS will face. A high level view of the roadmap is shown in the graphic below.

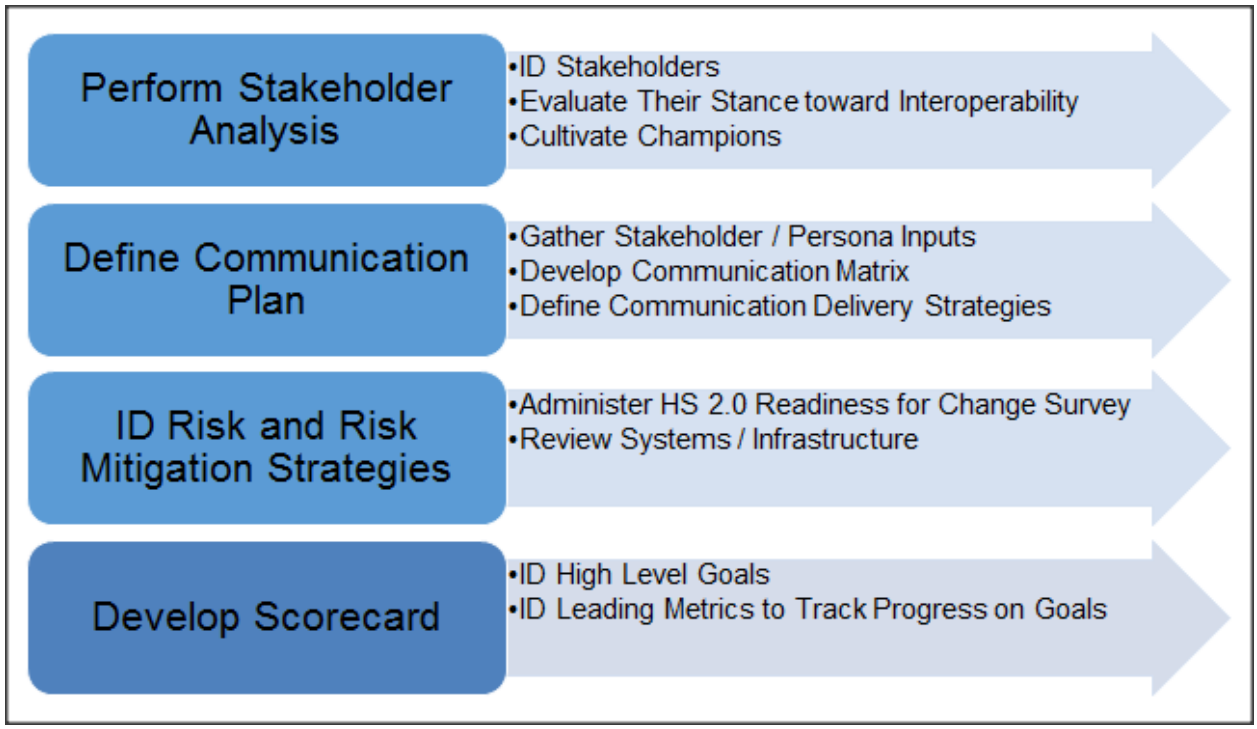


Figure 20 Organizational Change Management Roadmap

3.4.2.2 OCM Roadmap Plan Elements

The OCM Roadmap is intended to be customizable for each department within CHHS and includes:

1. **Stakeholder Analysis** – identify key individuals, assess their stance on interoperability, and cultivate champions to promote, advocate, and support changes needed to move interoperability forward
2. **Define Communication Plan** – utilize stakeholder input to develop and deliver communication strategies
3. **Identify Risk and Risk Mitigation Strategies** – administer HS2.0 Readiness for Change Survey; analyze results to identify risks and inform effective approaches to risk mitigation; determine desired behavior changes and provide supports to achieve.

4. **Develop Scorecard** – after identifying high level goals and hoped for outcomes, identify metrics to measure progress toward the desired outcomes; establish baseline and monitor.

3.4.2.2.1 Stakeholder Analysis

All organizational changes ultimately require that individuals change, and not all stakeholders will be supportive or interested in the changes. A stakeholder analysis must be conducted to understand the stance that key personnel have toward this change. The analysis highlights people who are supporters as well as those adversarial to change, and work is necessary to utilize supporters and move detractors.

Identify Stakeholders

Identify formal and informal leadership in CHHS. Obvious choices may include department directors, but influential people from all roles interacting with health and human service programs should be considered.

Evaluate each stakeholder's stance toward Interoperability

Evaluate each stakeholder's stance towards interoperability by assessing their Attitude, Activity, Power and Interest toward interoperability. By plotting each individual's position relative to others it is possible to identify supporters and potential naysayers (see the example charts below). With this knowledge, strategies can be developed to utilize supporters and move naysayers to best support the required changes.

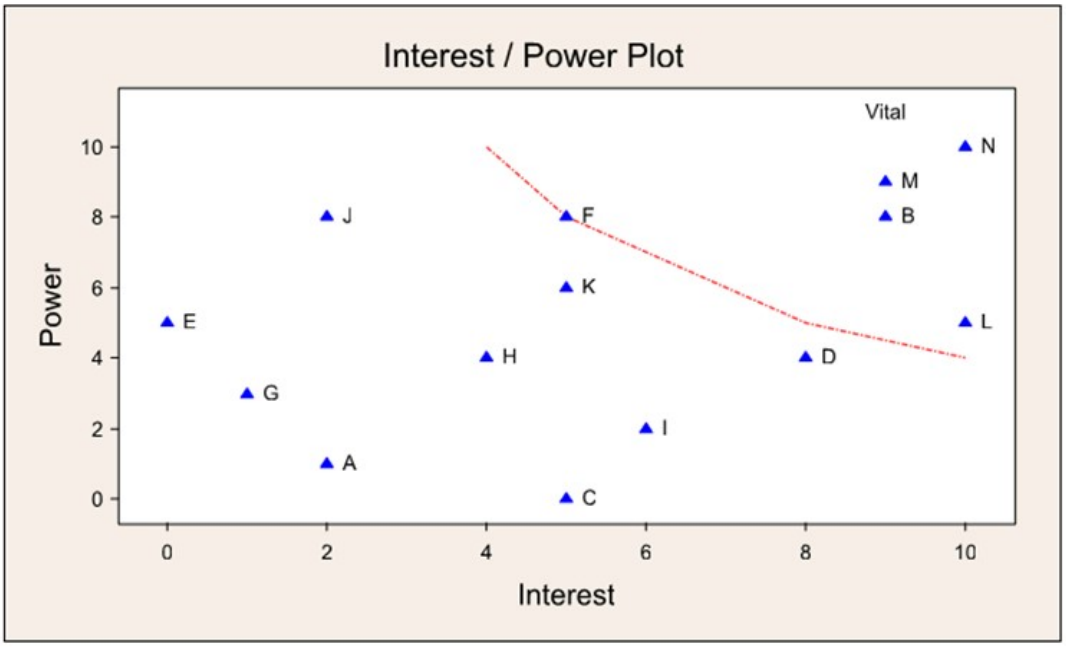


Figure 21 Interest/Power Plot

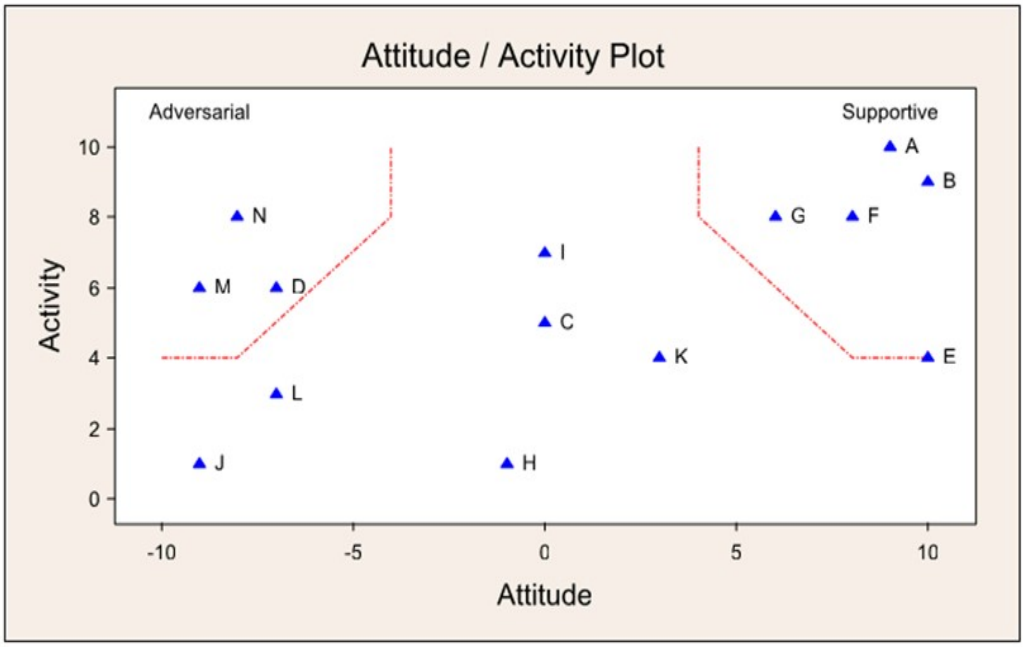


Figure 22 Attitude/Activity Plot

Finally, using this analysis will help to identify a handful of individuals to cultivate as champions for the interoperability effort. These individuals will be asked to be a positive face to the organization for interoperability, communicate the value and progress of the changes, help to create positive feelings for the change, and engage others in achieving interoperability. Characteristics and responsibilities of these individuals were developed by the committee and are listed in the products section of this report.

3.4.2.2.2 Communications Plan

Communication is a key element of any change effort. Being deliberate about the "who, what, when, why and how" of communications will ensure that appropriate and ongoing communications take place. The graphic below highlights the steps to create a communications matrix to answer these questions.

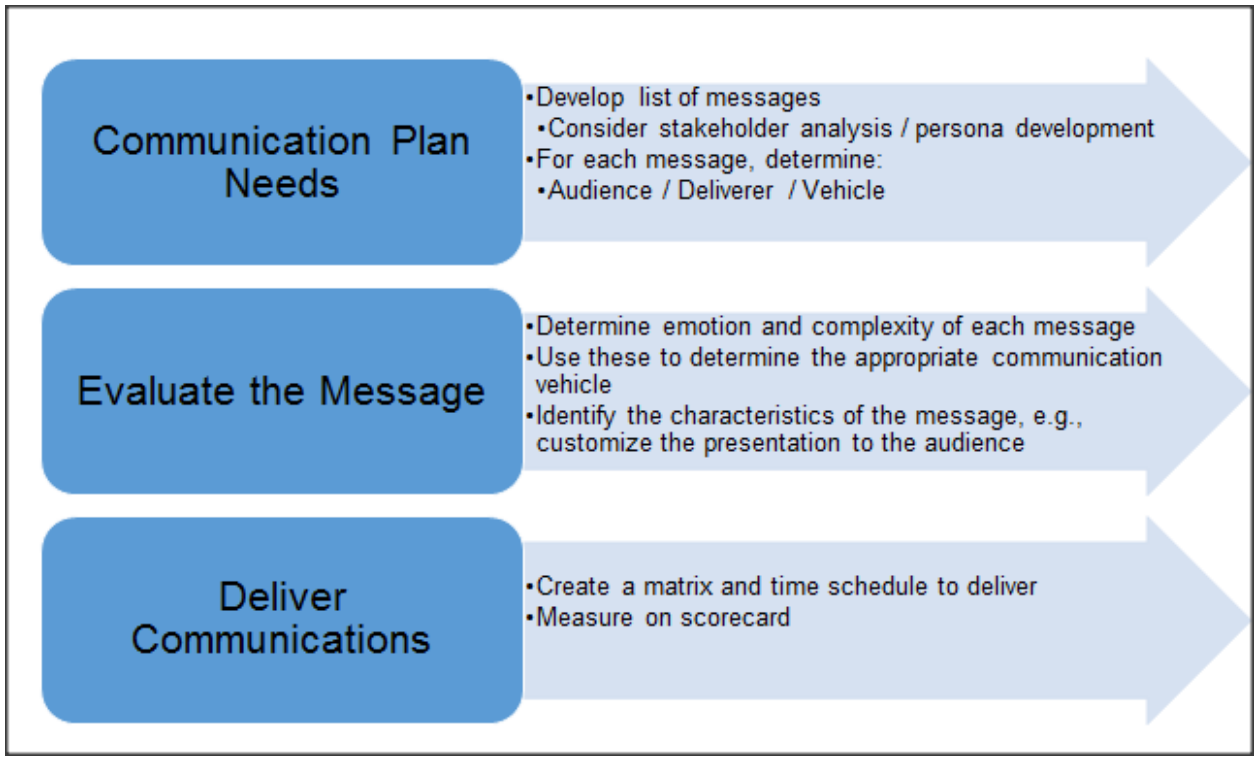


Figure 23 Communication Matrix Effort

3.4.2.2.3 Identify Risk and Risk Mitigation Strategies

Because every organization is unique, the interventions to produce change, in this case toward interoperability, should also be unique. This step in the Roadmap is designed to collect data to understand the right supports to offer the organization. The graphic below highlights the actions when identifying and mitigating risks.

Data collected will include the output from the two symposia, the stakeholder analysis, and the results from the HS 2.0 survey. In addition, follow-up interviews from the HS 2.0 survey is expected to add qualitative input to add richer insight into the survey.

This data will be summarized to find themes and risks articulated in the data. A variety of tools, e.g., a force field analysis, FMEA, and others may be deployed to create a portfolio of interventions to best support the changes individuals will be required to make associated with their new work environment.

Finally, the underlying infrastructure should be assessed to ensure that it supports, rather than inhibits, the desired changes. A list of desired behavior changes should be evaluated against elements in the infrastructure like: hiring/staffing practices; training/development; resource allocation, SOP/workflows; measurement, and rewards and incentives.

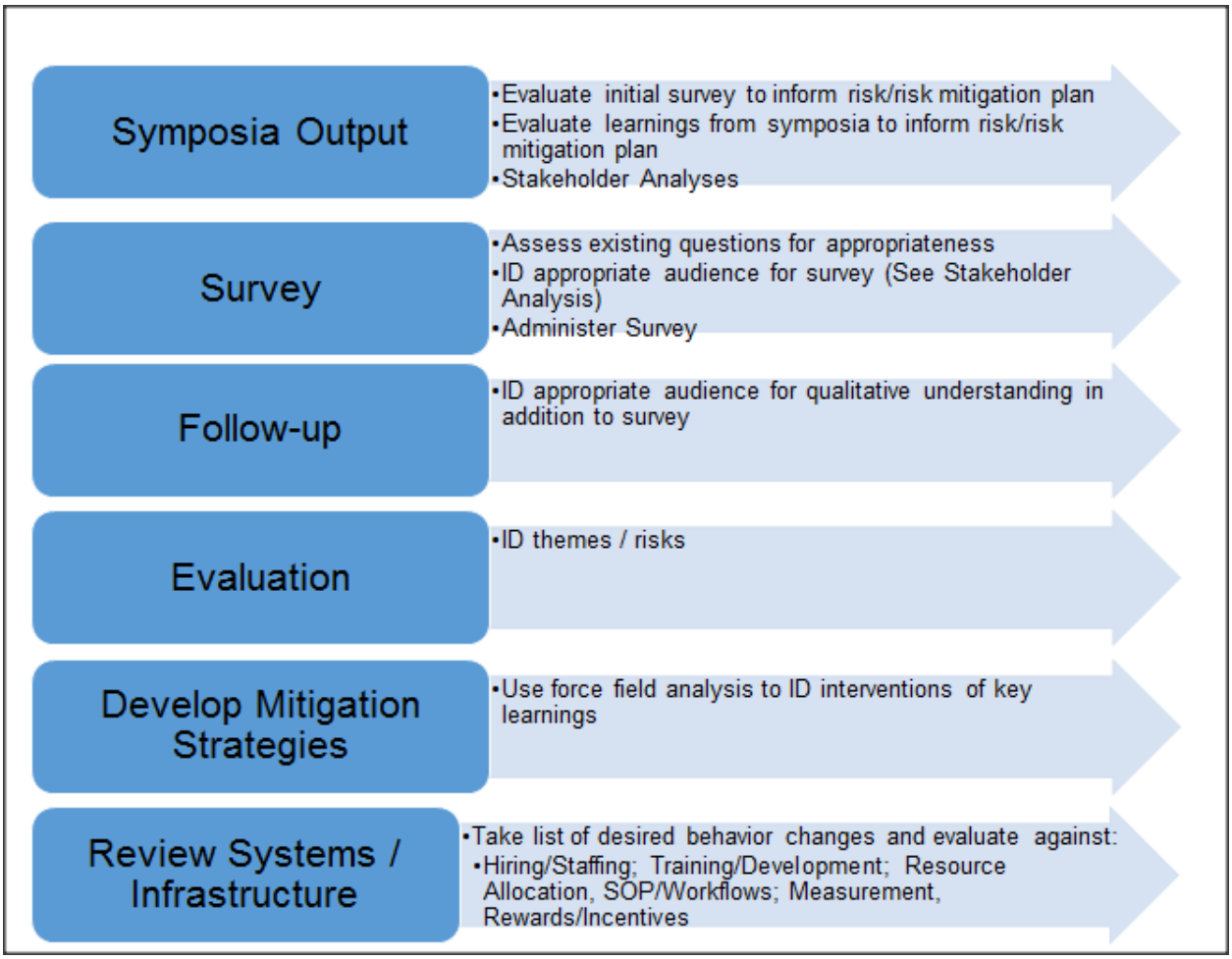


Figure 24 Organizational Change Management Process Flow

3.4.2.2.4 Scorecard

The last step in the roadmap is to adopt and utilize a scorecard. As part of the work of the OCM Committee, a proposed set of metrics created using the process in the graphic below to monitor the progress of the organization going through the change process. The set of metrics is shared in the following section 3.4.2.2.5.

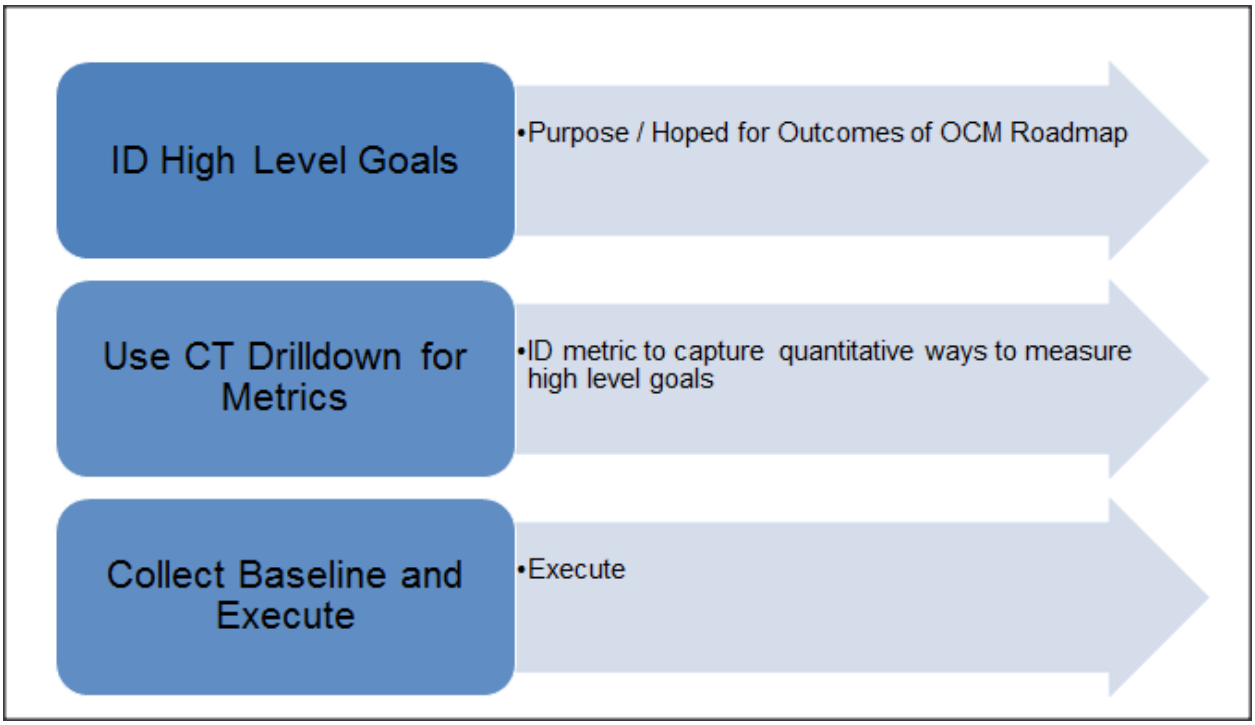


Figure 25 OCM Scorecard Process

The scorecard is designed to achieve two objectives: create accountability around completing the portfolio of actions designed to support the change, and test whether the supports are attaining the desired results. The metrics proposed below will require a significant effort to capture and monitor. The most effective scorecards offer regular feedback. It will require an ongoing effort to capture and report.

The scorecard below was created using the process outlined above:

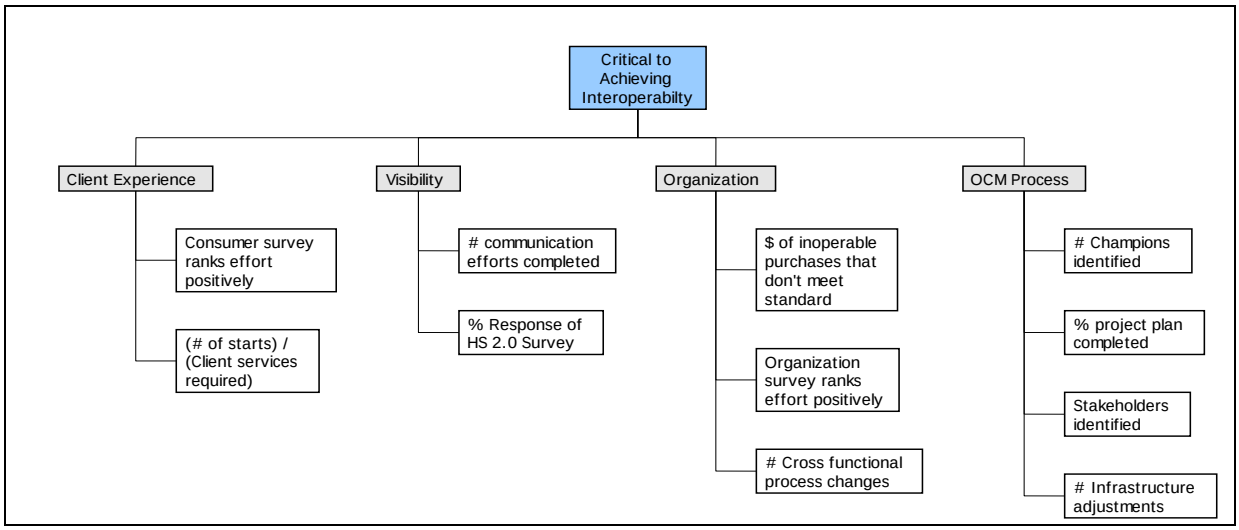


Figure 26 Scorecard Diagram

3.4.2.2.5 OCM Products / Metrics

A general description of the metrics contained within Figure 26 Scorecard Diagram are below.

Client Experience

This is a lagging indicator. It will tell a story after interoperability is in place and doesn't measure how we're doing while we're implementing.

- Number entry points into the system
- People see value
- I don't have to know all departments to get services
- Integrated

Visibility

Can measure change.

- Recognized enterprise architecture
- View as actual standard
- Public sees and recognizes this as something important to them

Organization

Can measure change.

- Day to day work changes
- Interoperability is a "real" job
- The "change" has been defined
- People see the value of the effort
- Awareness
- Integrated
- Consolidated functions

OCM Process

Can measure change.

- OCM is replicated in other efforts
- OCM is viewed as a learning environment

3.4.2.3 Profile and Responsibilities of a Champion

The OCM Committee brainstormed the desired characteristics of a "champion for interoperability." The committee felt it was important to identify individuals who could advance the projected changes to occur under the SSIIP Plan. The graphic below captures characteristics the group felt would be critical to the role as champion.

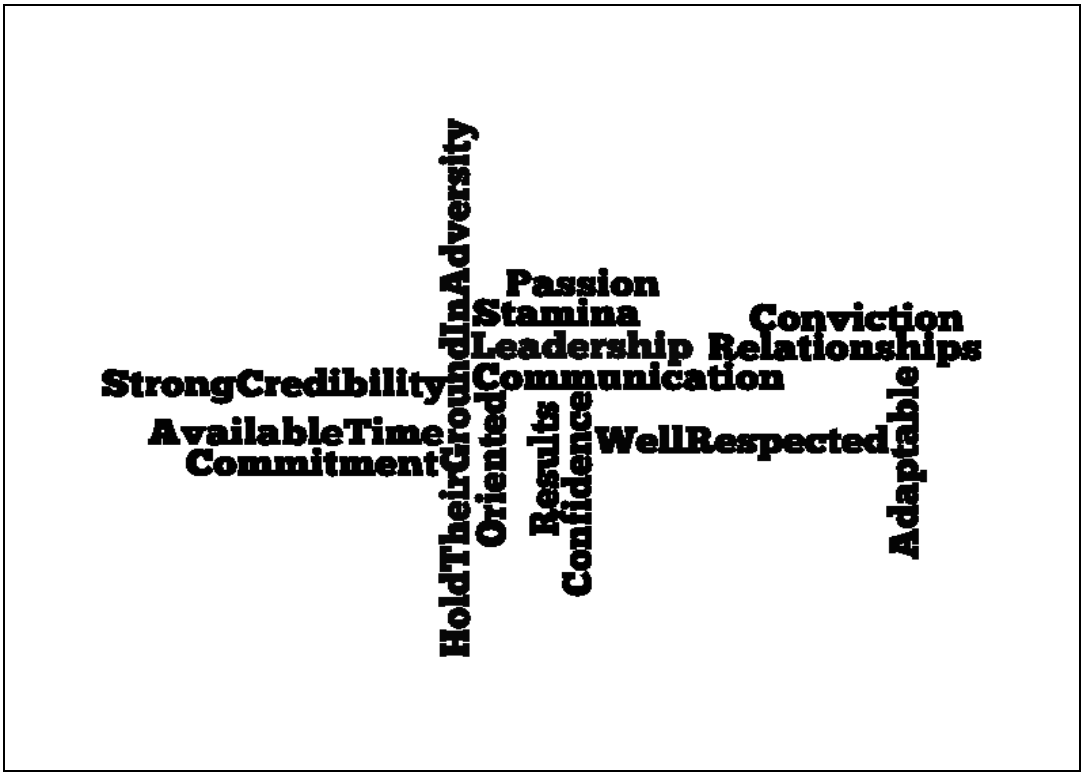


Figure 27 Champion Characteristics

These characteristics are required to enable successful support of interoperability. The expectations of a champion would be to effectively communicate the project's intent and benefit, create passion for the effort, and develop supporters. Components of these efforts are listed below:

Communicate and market successes throughout the organization

- Share compelling stories
- Understand interoperability and communicate its value
- Internally publicize results, and best practices
- Be voice of mass communications
- Encourage input

Create and maintain passion and commitment to Interoperability

- Feel accountable for the results
- Remove barriers
- Be an early adopter

Develop project supporters

- Solicit feedback
- Identify early adopters
- Support morale
- Act as an advocate
- Communicates – deliberately seeks out concerns around interoperability

A critical issue for champions will be time availability. Staffing decisions should be carefully considered around time requirements to offer the supports listed in roles and responsibilities. In order to recruit a committed leader who champions the move towards interoperability, it important to provide the opportunity to break away from their job related responsibilities and have dedicated time to focus on the effort.

3.4.3 OCM Committee Recommendations / Next Steps

Change is hard! The OCM Roadmap was created with the assumption that all organizations are unique. That means that there will not be *one* right way to accomplish necessary changes, i.e., a concrete set of steps that all should follow. Instead, understanding the specific context of each organization will facilitate constructing a set of supports to enable the desired behavior changes.

It is important to recognize that this change effort is not a 6 week project. The milestones identified in the Roadmap could be accomplished within a short time frame. It is important to note that issues will continue to arise, context will change, and the activities and tools highlighted in the Roadmap will need to be revisited in the near and long term horizon.

Recommendations

- Building the right set of supports will require a thorough understanding of the changes required to achieve interoperability. An invaluable tool to facilitate this understanding is development of personas. Doing the work of creating personas will give all personnel in the organization a rich, well developed image to envision necessary changes they need to create.

- Change efforts will require ongoing attention and resources to be successful. Serious consideration should be made for specific resources for the champion's time. Decide how many champions are needed and evaluate what portion of their time should be dedicated to this effort. Consider what part of their paid time should be devoted to interoperability.

- A scorecard is an effective tool for accountability and to test for effectiveness of interventions. Make sure that there is a common and understanding of the metrics used to track interoperability, and that management believes the metrics represent. Review the metrics on a regular and frequent basis. Recognize that scorecard development and regular reporting/monitoring will require resources

- Stakeholder assessment: OCM should recognize that leadership support is critical and necessary, but not sufficient. The first step in the OCM Change Roadmap is to identify both formal and informal stakeholders in the organization, and evaluate their stance toward interoperability. There are many tools that should be deployed to identify influential individuals and then develop action plans to utilize champions to support the effort, garner the support of potential naysayers and satisfy their concerns, and ensure that appropriate communication vehicles are put in place to alleviate and surprises.

- Baseline Readiness: The maturity level of the organization plays an enormous role on the ability to adopt and adapt to the changes envisioned by an interoperable framework. As such use the roadmap begins with establishing a baseline of the organizations current capacity and maturity across a set of core interoperability indicators. Use quantitative and qualitative measures in the baseline so that strengths and development areas are clearly identified. This baseline assessment provides a starting point to develop the infrastructure to support change, decision making and technical standards that will support interoperability.

- Risk Identification and Risk Mitigation Strategies: The baseline readiness assessment will provide insight to the organization on areas where asking people to change behaviors may be problematic. These problematic areas will require thoughtful effort to develop a portfolio of actions to support individuals as they address the inevitable anxiety that accompany any change effort.

- Performance Metrics: Developing a scorecard to monitor progress of all the OCM efforts ensures a way to keep the organization accountable to needed actions, and to test whether the developed set of actions to support change are in fact achieving the desired goals. An underlying assumption behind the OCM effort is that change will not happen overnight and will require significant time and effort. A scorecard offers insight into the long term process of making change reality.

Table 8 OCM Recommendations

Organizational Change Management Recommendations		
0-6 Months	**6 -24 Months**	**Beyond 2 Years**
• ID key stakeholders and assess their stance toward interoperability • Cultivate champions to communicate and market interoperability • Initiate development of personas to enable a broader, richer, and deeper understanding of the requirements of the customer of the change efforts • Develop Communication Plan	• Adopt and track appropriate performance metrics • Identify and prioritize behavior changes needed to realize interoperability, then provide supports to the individuals impacted by these changes • Evaluate the existing infrastructure and ensure that they support the desired changes rather than inhibit	• Monitor progress using the performance metrics identified • Continue to evaluate and develop the personas to ensure they reflect the experiences of an ever-changing system of delivery • Continued evaluation of organizational infrastructure

3.5 Six Other Key Change Drivers

Stewards of Change's (SOC) InterOptimability Change[18] drivers include organizational, operational and technological competencies — derived originally from research of past interoperability initiatives. The driver icons, six additional ones shown below, provide an insightful, entertaining and memorable shorthand that can be used to quickly communicate about an organization's interoperability priorities and efforts. The SOC readiness assessment uses a variety of analytic and survey tools to create baseline measures of each driver. This information provides guidance for leadership to construct project plans and timelines, and identify development and investment priorities. You can use the baseline to measure the progress of your interoperability project over time.

Table 9 InterOptimability Change Drivers

	Customer focus places the client at the center of the system. It enables consumers to express their needs and have service delivered in a manner that ensures the best outcome for them, based on best-in-class intervention models. In addition to optimizing outcomes, customer focus reflects sensitivity to the customer's strengths, limitations, resources, needs and preferences. • "No Wrong Door" approach simplifies and expedites access and entry to appropriate services • Provides an unprecedented, holistic view and understanding of the consumer • Improves case coordination, scheduling and quality management • Enhances the potential to create efficiencies through universal eligibility systems and minimizing the duplication of services • Improves consumer and worker experience by enhancing coordination and streamlining service delivery
	Building open and inclusive processes looks at the degree to which all external stakeholders—that is, stakeholders outside of the department itself such as consumers, the courts, funders, legislators, private providers, the public at large, and others—have access to information about the department's services and accountability measures (program outcomes, budgets, etc.). It also ties to the depth of communication and collaboration in which the department routinely engages. • Increased accountability, transparency, and public confidence • Expanded interest and involvement with the entire community

[18] http://stewardsofchange.com/how-we-do-it/pages/hs2-inter-optimability.aspx

	• More tolerance and flexibility for innovation and experimentation • Support for long-term vision and strategies that transcend a single director/administration • Public/private partnerships • Increased communications across departments, functions, sectors and constituencies
	Innovative funding streams refers to the department's ability to fund the people, systems and tools that are fundamental to creating interoperability as described in Human Services 2.0. As in any major change initiative, planning and implementation investments can be significant both in any given year and over time. Therefore, this driver looks at the department's knowledge and ability to maximize funding from local, state and federal sources. It also addresses alternative funding sources outside of the normal, governmental budgeting mechanisms. • Support incremental development process vs. comprehensive/legacy approach • Spread costs across multiple program areas by leveraging benefits of shared services • Maximizes funding by braiding and blending funds streams • Supports revenue maximization or cost sharing based on comprehensive client service plan • Increased access to public/private and foundation support for innovative, cross boundary approaches
	Building public and political will relates to the degree to which government leaders and the public at large understand and have confidence in the department. It gauges awareness of the department's proposed direction, strength of each group's belief in that direction, and the ability of the department to deliver the results promised. Public and political will impacts the willingness to stand behind the proposed direction with personal action: energy and time, votes, sufficient funding. As such, this driver assesses the department's sensitivity to these issues as well as its active involvement in shaping opinions of political figures and the various publics with which they are engaged. • Increased clarity and consistency about the mission, vision, values and goals of the initiative • Greater alignment and commitment among constituencies and stakeholders (e.g. workers/managers, general public, clients, legislators) • Greater support and trust for change and more tolerance of risk and challenges • Access to more sophisticated tools to measure and evaluate results

	Data and performance measurement systems addresses how well the department works with data overall. This driver includes data collection, storage, access, analysis and usage as well as the comfort and competence of users with related tools. Data quality, data governance, data aggregation and data sharing are important aspects of this factor. Taken together, the elements of this factor inform performance measurement for individual workers, for programs, and for the department as a whole. • Ability to measure results more accurately, provide data-driven feedback and take rapid corrective action. • Enables creation and use of dashboards and analytical tools • Provides more accurate and reliable evaluation and feedback to workers • Helps more rapidly identify high and low performing workers/units • Connects individual and group performance with organizational results • Better support for organizational alignment and communication around mission, vision, strategies and work plans • Supports performance based compensation and contracting
	Bridging service silos speaks to the capability of an organization to coordinate planning and provide services across multiple program silos (e.g. various human services, health and education). It addresses the organization's ability to focus on improving outcomes by working holistically for the consumer by creating linkages, increasing information portability and working collaboratively across programs. • A unified view of the consumer • Cost efficiencies realized through elimination of duplicate services • Increased quality of services experienced and reported by consumers • Standardized measures • Cultural attitudes that support rather than inhibit cross-sector collaboration

4 The Proof of Concept (POC) Demonstration

The State Systems Interoperability and Integration Project (SSIIP) was tasked with producing a plan that provides the "big picture" vision for interoperability for CHHS. At federal, state and local levels there is growing momentum in electronic data sharing systems that benefit health and human services and the individuals they serve. Several initiatives within California are tackling the challenges of establishing technology systems that allow appropriate data exchange and maximizes information sharing across departments at state and local levels. The common denominator of the various initiatives is advancing an electronic data sharing system for State and local level public agencies.

As a way to demonstrate options for electronic data sharing, the SSIIP initiated a Proof of Concept (POC) demonstration focused on children and youth in foster care who have been and will be prescribed psychotropic medication. The Proof of Concept Demonstration shows how replacing the current fragmented process of information sharing can be re-tooled into an electronic record sharing system that provides decision makers such as social workers, judges, parents and foster parents, and prescribing doctors with accurate and timely data which protects privacy and confidentiality. This will ultimately improve services to children and youth in foster care.

This POC demonstrates interoperability at the state and local levels and provides a template for future expansion across all applicable health and human services programs and systems. The following sections explain the work done by the SSIIP team in producing a POC demonstration which was shared with attendees of the California Interoperability Symposium.

1) Problem Statement
2) Psychotropic Medication Authorization (PMA) Process (Symposium #1)
3) Request for Demonstration
4) Workgroup Solutions
5) Vendor Demonstrations (Symposium #2)

4.1 POC Problem Statement

Psychotropic medication in children and youth in foster care is a concern at the national level as well as within California. In recent studies by the Government Accountability Office (GAO), they have found that children in foster care were prescribed psychotropic drugs at higher rates than non-foster children in Medicaid. Although the higher rates do not necessarily indicate inappropriate prescribing practices, and could be due in part to foster children's greater mental health needs and greater exposure to traumatic experiences. The higher rates could also be due to the challenges of coordinating their medical care due to frequent moves, new doctors prescribing new medications possibly without a full medical record to review, no permanent guardian, and a lack of attention to the potential health risks of a psychotropic medication regimen. While the Proof of Concept does not directly address the medical necessity and/or appropriateness of prescribing psychotropic medication to children and youth in foster care, it is anticipated that a system providing decision makers with ready access to accurate and timely information will result in better oversight, more appropriate levels of medication, and ultimately healthier outcomes for those children and youth.

In California, when a physician prescribes psychotropic medication for a child in foster care, the court must review and authorize administration of the medication through a court order. Therefore, it is essential that the presiding judge, along with the child welfare agency, the court personnel, the parent, the advocate for the child, and the caregiver know the current and full medical and behavioral health history of the youth in order to provide the best care and judgment regarding the administration of the psychotropic medication. The doctor prescribing the medication needs to have access to current and full medical and behavioral health history to ensure that the prescription is appropriate for the youth and not a medication that has been prescribed in the past and not been successful. It is also important for these persons to know whether the requested psychotropic medication is of a similar class to a medication the child in foster care is already taking and/or whether it is contraindicated to a medication (behavioral or physical health) the child is taking.

Presently, much of the information exchange among the court, child welfare public and private agencies, parent, child advocate, caregiver and the doctors is done by paper authorization forms to different parties via facsimile or email, and even by regular mail. This does not facilitate providing the most current and complete information because it depends on a number of different persons to enter the information into the necessary systems, including the State's automated Child Welfare Services/Case Management System (CWS/CMS). The statewide child welfare system creates the Health and Education Passport that is intended to provide reports that contain medical and education information regarding the child in foster care. Manual form completion creates opportunity for delays and errors in deciphering handwriting. Resulting system entry delays and/or deciphering errors compound the opportunity for non-current, incorrect, and potentially harmful medication dosages prescribed for children in foster care. Incomplete records of behavioral and physical health history for the child in foster care may also result. In addition, in the foster child's county of origin, there may be a number of legacy electronic systems that do not link to each other so that the necessary information cannot be shared in an interoperable manner. Effectively monitoring the foster child's medical and mental health progress over time is further compromised by frequent child moves, resulting in new doctors prescribing medications possibly without possessing a full medical history, that exacerbate delays associated with the manual front-end paper process.

Information about the child is maintained in separate systems, and not all information is maintained in electronic format. There is no universal identifier for the child that is shared across state, local and private information systems. This introduces opportunities for erroneously matching information about two different people or failing to match information from two systems about the same person.

For example, a case manager and/or public health nurse enters information about the child manually into the CWS/CMS system. Some of the case information is based on a manual review of Medi-Cal, health, and education records. Different user credentials and logins are required to access different IT systems. Even if the physician uses an electronic health record (EHR) system, there is currently no standard mechanism for the EHR system to exchange relevant information electronically and automatically with the CWS/CMS. Forms required by the court for the approval of psychotropic medications are prepared manually and transmitted in paper format to a variety of interested parties. Consent or disagreement with recommendations is shared via manual signatures on paper forms.

Another example would be the Health and Education Passport (HEP). The passport is typically printed and provided in a binder. Some information in the Passport is in the format of a scanned page, rather than being stored as individual data elements in a database. This means that specific information of

interest (e.g., past medication history and evaluation of effectiveness) may be difficult to find and cannot be readily used in a decision-support tool.

Other barriers to timely information sharing are the legal confidentiality challenges and concerns, particularly with growing requirements under federal HIPAA standards and rules. What information can be shared, with whom, for what purpose, and how can the information be shared and the rights of confidentiality and privacy of the foster care minor be safeguarded? Once shared, how does the process ensure that the information is not re-disclosed?

Currently, Federal and California state law requires appropriate consents for the administration of medication to foster children. For dependents of the juvenile court with a prescribed psychotropic medication, court authorization or parental consent for the administration of the medication will be documented in the child's record. Thereafter, HIPAA does not restrict the delivery of medical information from the attending physician to the child's assigned social worker, probation officer, or the custodial caregiver. Nor does it restrict entry of such information into CWS/CMS. California Civil Code Section 56.103 establishes these provisions. Obtaining and documenting judicial consents is specified in California Rules of Court Section 5.640.

4.2 POC Psychotropic Medication Authorization (PMA) Process

Through meetings with three representative counties: Alameda, Santa Clara and Los Angeles, the project team was able to produce a process diagram representing the manual steps in the current Psychotropic Medication Authorization (PMA) process.

Figure 28 on the following page depicts the authorization process used for children in Foster care that are being prescribed psychotropic medications. On the left side of the diagram, the parties involved in the process are listed. The RFD with all its addendums is available from the OPSI Acquisitions and Contracts Division website. Contained in the RFD is detailed narrative describing the activities that occur in each step of the process. This process is completely manual and paper-based at this time.

This process was presented to the attendees of the first California Interoperability symposium in May 2013. There was much discussion concerning the problems and inherent dangers with the existing manual process and its effect on youth in foster care.

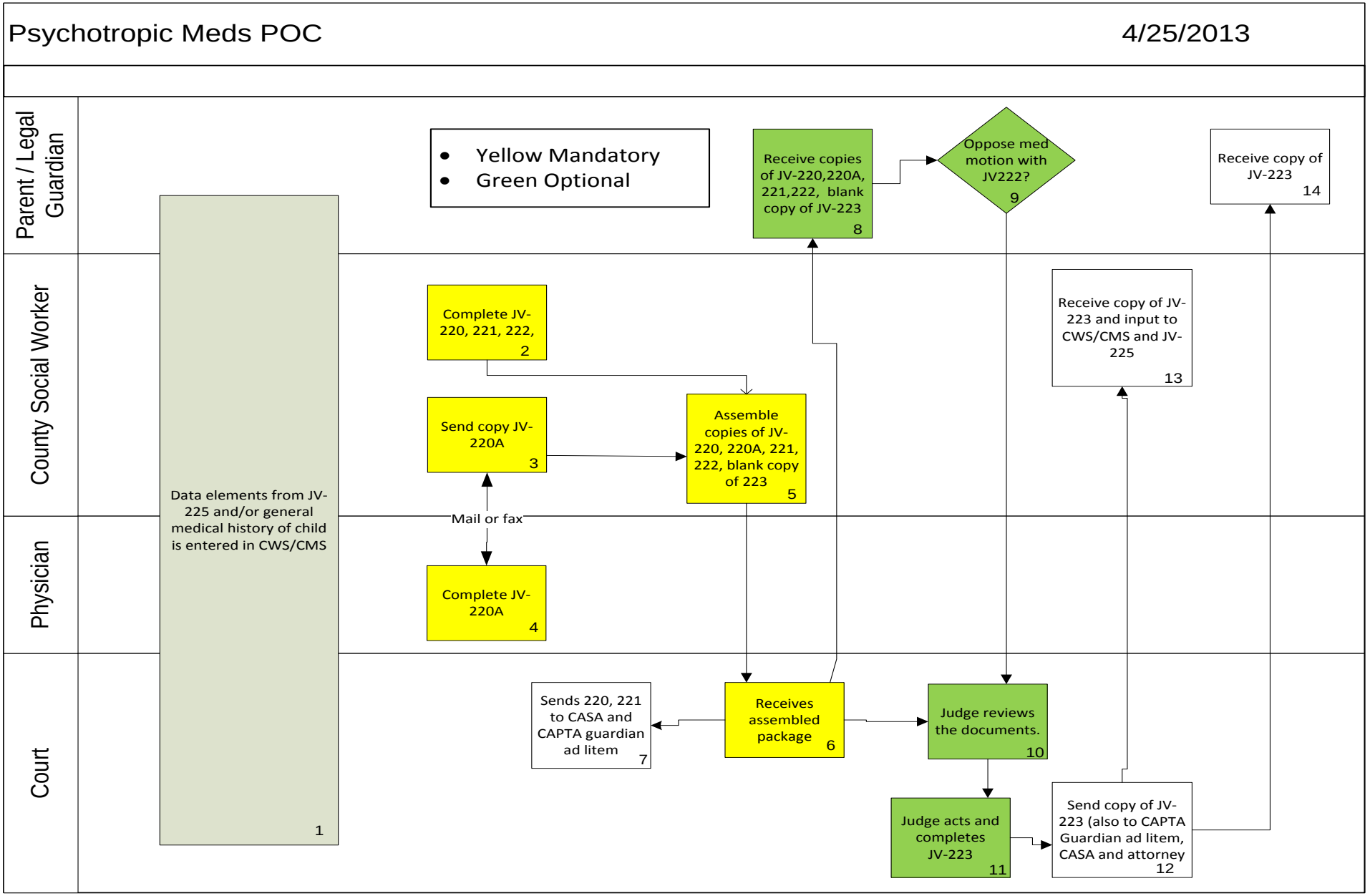


Figure 28 POC Psychotropic Medication Authorization Process

4.3 POC Request for Demonstrations

The SSIIP grant had not initially planned to develop a Proof of Concept demonstration as part of the project activities. However, the value of showing an actual working demonstration at the second symposium was determined to be an outstanding opportunity and the project team decided to enlist the assistance of the vendor community to determine if it could be produced at no cost to the State.

A Request for Demonstration (RFD) solicitation document was prepared which described the current problem, included a detailed description of the existing manual PMA process flow, and contained 23 mandatory and 8 optional requirements. The RFD clearly stated the vendors would provide the demonstration at no cost to the State.

Eight vendors submitted responses to the RFD and through a formal assessment process, three vendors were chosen as finalists. These three firms were invited to present their demonstrations at the second Interoperability symposium.

As a proof of concept (POC), the vendors would take a current manual system involving the child welfare, Medicaid, private medical facility, and the courts, and show in a very short period of time (approximately 3 months) several methods of sharing timely, accurate data in an interoperable manner. The specific project involves the process to request to administer psychotropic medications for children in foster care, involving four (4) different IT systems. The State of California's Office of Systems Integration (OSI) developed and issued, for the first time, a Request for Demonstration (RFD), at no cost to the State, for bidders to submit proposals on how they would accomplish the task of sharing interoperable information between the four (4) systems. As a result of the RFD, eight (8) submissions were submitted and three (3) were selected to proceed and present at the second Symposia in September 2013.

4.4 POC Workgroup Solutions

The four work groups: Governance, Legal and Confidentiality, Organizational Change Management and Information Technology, were each asked to review the POC and comment on how it could be influenced by their discipline. The following sections are the results of the work group efforts.

WorkGroup 1. Governance Model Example for POC

The diagram (Figure 29 Psychotropic Meds POC Process Flow – Governance Model) and the related narrative were developed by the Governance Committee to describe the POC process and to indicate how a POC. This section contains the following:

1. Psychotropic Meds POC Process Flow
2. Psychotropic Meds POC Process Narrative

On the next page, the Psychotropic Meds POC Process Flow (illustrated in Figure 29), demonstrates how a request for data sharing between different departments and entities would flow through the CHHS governance process.

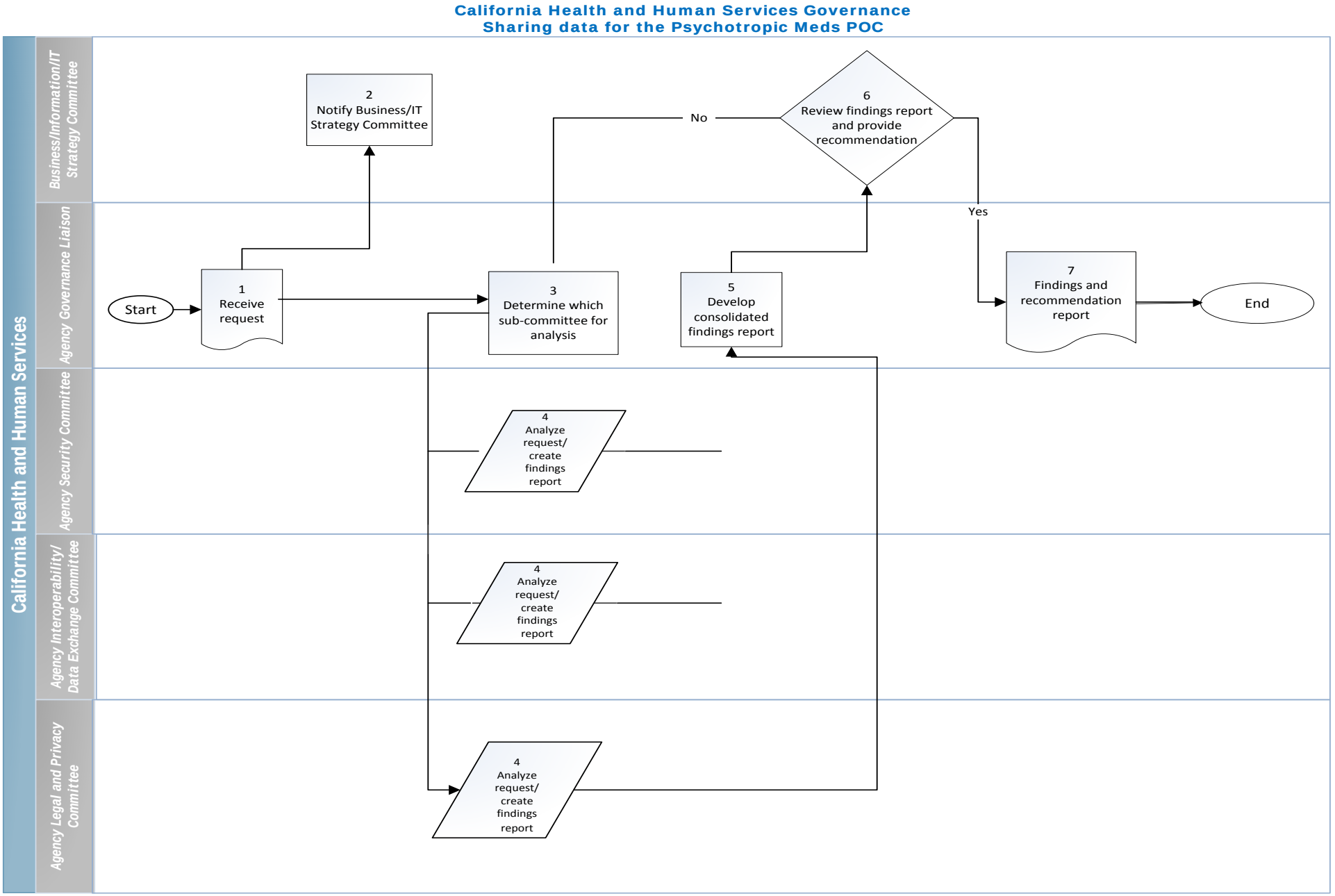


Figure 29 Psychotropic Meds POC Process Flow – Governance Model

Psychotropic Meds POC Process Flow – Narrative

At the present time, courts (judges) do not receive complete and accurate information to make an informed decision to authorize psychotropic medication to foster youth. Also physicians and psychiatrists do not have access to medical records to make a prescription decision. This governance flow demonstrates a process in which entities can submit requests to exchange data.

This process flow and recommended outputs have been developed based on the following assumptions:

- A formal request form has been developed and published. The request would include information such as requestor, the organizations requesting to exchange data, type of data being exchanged, where the data resides, current process flow and the business need that is driving the request.
- A process for determining the appropriate sub-committee(s) needed to analyze the request has already been established.
- Each sub-committee has defined criteria in which requests are assessed against.
- Standardized templates have been developed for committees to report findings.
- A library of standard templates (e.g. data sharing agreements) has been created as a resource.

Agency Governance Liaison

Step 1. Receive Request - A request is submitted to the Agency Governance Liaison from the counties to share data to facilitate the authorization of psychotropic medication to foster youth.

Step 2. Notify Business/Information/IT Strategy Committee - the Agency Governance Liaison communicates the request to the Business/Information/IT Strategy Committee (information only).

Step 3. Determine which sub-committee is needed for analysis – the Agency Governance Liaison determines the appropriate sub-committee(s) that should participate in the assessment and routes request to the committee leads.

Sub-committees (Security, Interoperability/Data Exchange and Legal and Privacy)

Step 4. Analyze request/create findings report - The sub-committees will analyze the request based on their area of expertise/knowledge and develop a findings report. The current sub-committees are:

- The Agency Security Committee - assess which security guidelines need to be considered based on the specific data identified in the request to be exchanged and the organizations that will be included in the exchange. The findings report from this committee could include a list of security standards that need to be considered during development of the data sharing agreement.

- The Agency Interoperability/Data Exchange Committee - reviews what type of data is being requested and what business problem is being addressed to determine if there are any prior requests that are similar. This committee would also assess what data exchange efforts and/or solutions are available today that could possibly be leveraged. The finding report from this committee could include references to organizations that have similar data sharing agreements and/or technology in place today that could be leveraged, or encourage the requestor to participate in an ongoing effort that is addressing the same need.

- The Agency Legal and Privacy Committee - determines what privacy guidelines and legal obstacles would need to be addressed to successfully facilitate data exchange, in addition to and identifying other data sharing agreements of a similar nature that are available to be leveraged. A findings report from this committee could include a listing of privacy guidelines, laws and policies to consider when drafting data sharing agreements, such as:
  - A tailored data sharing agreement that could be used as a starting point
  - A template with a set of required provisions that best fits for an agreement to share data
  - A set of boilerplate provisions for all data sharing agreements
  - A custom data sharing agreement specific to the circumstances

Agency Governance Liaison

Step 5. Develop consolidated findings report - All finding reports from the sub-committees are received and consolidated into a single findings report which is then submitted to the Business/Information/IT Strategy Committee for feedback and recommendations.

Business/Information/IT Strategy Committee

Step 6. Review findings report and provide recommendation - The Business/Information/IT Strategy Committee reviews the findings and either sends it back for specific comments on additional review needed or supports it and moves it forward with a recommendation.

Agency Governance Liaison

Step 7. Findings and recommendation report - The Agency Governance Liaison develops the final findings report which includes feedback from all sub-committees and the Business/Information/IT Strategy Committee recommendation. The feedback could include security and legal guidelines to consider, as well as available solutions and contact information for organizations that have similar agreements in place today that could be leveraged. The report would also include names and contact information for each sub-committee lead. If the requestor has any additional questions, or would like to request the Lead of the Agency Legal Committee to participate in the development of the agreement.

The recommendation would include one or all of the following:

- A tailored data sharing agreement that could be used as a starting point
- A template with a set of required provisions that best fits for an agreement to share data
- A set of boilerplate provisions for all data sharing agreements
- A custom data sharing agreement specific to the circumstances

WorkGroup 2. Information Technology Example for POC

As a way to demonstrate options for electronic data sharing, the SSIIP initiated a Proof of Concept (POC) demonstration focused on children and youth in foster care who have been and will be prescribed psychotropic medication. The Proof of Concept Demonstration shows how replacing the current manual process of information sharing can be re-tooled into an electronic information sharing system that provides decision makers such as social workers, judges, parents and foster parents, and prescribing doctors with accurate and timely data that protects privacy and confidentiality. This will ultimately improve services to children and youth in foster care.

Initial members of the IT Committee provided information to guide the development of the POC Request for Demonstration (RFD). Using standard court forms simplified the data exchange definition process. Requiring vendors to translate the forms into standard data exchange specifications was intended to provide useful artifacts for production implementation.

Technical requirements (mandatory and optional) were crafted so that the demonstration would show:

- A solution that supports future interoperability
- A solution that is consistent with and builds on NHSIA and standard information exchanges
- How automation and standard data exchanges could
    - Streamline operations
    - Increase data accuracy
    - Provide better/more complete information to decision-makers
    - Allow the human processes to focus on the client
- Integrating information from multiple sources to populate the form set
- Reusable components

WorkGroup 3. Legal and Confidentiality Framework Example for POC

The Proof of Concept (POC) involves the sharing of timely and accurate data and information regarding the administration of psychotropic medications to children in foster care. This POC presents potential legal confidentiality challenges and concerns, particularly since the proposed data to be shared is protected health information and the growing requirements under federal HIPAA standards and rules. Therefore, considering MOU/IA elements previously described, the following questions must be asked and answered:

- What specific information can be shared?
- With whom?
- For what purpose?
- How can the information be shared and the rights of confidentiality and privacy of be safeguarded?
- How does the process ensure that the information is not re-disclosed?

Currently, Federal and California state law requires appropriate consents for the administration of medication to foster children. For dependents of the juvenile court with a prescribed psychotropic medication, court authorization or parental consent for the administration of the medication will be documented in the child's record. Thereafter, HIPAA does not restrict the delivery of medical information from the attending physician to the child's assigned social worker, probation officer, or the custodial caregiver. Nor does it restrict entry of such information into the Child Welfare Services/Case Management System. California Civil Code Section 56.103 establishes these provisions. Obtaining and documenting judicial consents is specified in California Rules of Court Section 5.640.

Since the POC is following the Juvenile Court required forms for the request to administer psychotropic medications to children and youth in foster care, and such information is obtained and provided currently but manually, the POC for automated data sharing does not present any new confidentiality or privacy issues to resolve. Case-by-case "consents" for administering medications, as well as sharing related information among appropriate parties (a cross-over issue with the IT Committee), remain subject to the approval of the client, client's attorney/representative, and the judge. Interoperable automated data sharing, if implemented statewide, will require the involved agencies to enter into an MOU/IA to ensure that current protections remain in an automated environment.

Using the POC as an example of the Privacy and Confidentiality Framework Process described in Section 3.3.2.1 above, the request for interoperability would be for the county social worker to have access, not only to CWS/CMS, but also to the State's system for reimbursement of medications through the Cal-MED system, in order to automatically populate the CWS/CMS with the correct medication prescriptions filled for a particular child who is in foster care. The state's prescription payment system information confirms and can automatically populate such information onto the necessary court documents to request authorization for the administration of psychotropic medications for foster care children. The Legal and Privacy Committee could provide either a Memorandum of Understanding (MOU) or language to include in such an MOU so that the county could have access to this system for children in its care and custody. In addition, the Legal and Privacy Committee could draft proposed language for a Notice of Privacy (especially in light of recent information published by the Office of NC and the Department of Justice's Office of Civil Rights regarding language for Notices of Privacy) to be given to parents when a child is placed by a county into foster care and draft language for a consent or authorization.

Working with the IT Committee, this committee would help in insuring that only those persons necessary to have access to such information will be authorized and a reporting and audit trail of access to such information.

WorkGroup 4. Organizational Change Management Example for POC

At the second Symposia, the OCM Committee presented along with a Pega Systems. The Pega Systems highlighted the benefits of an integrated platform designed to automate workflow processes. The Pega Systems demonstrated automated referrals and approvals, electronic notifications and tracking, and coordinated workflow processes. At key points of the demonstration, the Pega Systems indicated how communication is central to successfully developing workforce skills alongside the introduction of the integrated system.

An agreement that training personnel on utilizing the software, as well as updating new workflow procedures would be valued. The group felt that many of the existing workforce had limited experience with technical solutions, so the process to readily adapt the software to new workflows would facilitate adoption.

4.5 POC Vendor Demonstrations

The three chosen vendor organizations (Cambria/Oracle, Pega Systems and IBM) developed custom demonstrations addressing the problems inherent in the current PMA manual process. These demonstrations proposed solutions that included automation, interoperability between systems and other technological solutions that would help expedite the PMA process.

Each vendor participated in a "rehearsal demonstration" in early September and received feedback from the project team. They had the opportunity to make some final changes before the presentation of their solutions at Symposium 2. Each vendor was also given a particular "focus" that matched the work group they were presenting with. The pairings were as follows:

Cambria/Oracle:	Governance
Pega Systems:	Organizational Change Management
IBM:	Legal/Confidentiality

Each demonstration was very well received and the audience could clearly see the value in an automated interoperable PMA process. It was evident that a process that could take as long as 45 days today could be accomplished in several days to a week. The addition of the vendor demonstrations to the symposium gave it a "real world" example of how interoperability could enable better and faster service to CHHS clients.

5 Synthesis and Conclusions

Over the course of this project there has was a tremendous amount of work conducted by subject matter experts, committee teams and multi-disciplinary groups of professionals from across the state and counties. These efforts have produced a deeply researched set of recommendations and a detailed roadmap that will guide CHHS during its implementation of the interoperability initiative certainly over the first two years, and potentially beyond. To guard against the risk of perpetuating silo thinking or isolated departmental activities the project team worked diligently to synthesize learning across the committees throughout the project and during the final symposium. This strategy was intended to reinforce the underlying principle of interoperability which views clients and systems holistically rather than in isolation.

The committee reports and recommendations reflect this integrated approach and have been developed to encourage close working relationships between individuals and departments. The agenda for the final symposium was explicitly designed to expose participants to the content of individual committees but also build towards a structured set of exercises to review and synthesize the feedback and recommendations.

The participant composition for the second symposium comprised a mix of people who had attended the first symposium and a significant number of new people. This mix generated a range of recommendations that both confirmed the specific recommendations of the committee reports and also highlighted a few areas for additional consideration by leadership. Key themes are summarized below in no particular order:

1. **Leadership Is Critical**
    - Defining and disseminating a common vision for interoperability is critical. As with all successful large scale projects a strong endorsement by the senior leader is critical. During the second symposium there was a broad consensus that obtaining an executive order or letter supporting the initiative and defining time frames from the CHHS Secretary would be valuable for success.
    - As part of creating the enabling culture and environment for interoperability it was also broadly agreed that identifying champions across the state would be necessary to drive the desired changes close to individual operating unit or programs. Leadership must lead by example and by providing encouragement, support and authorization for action. Even in situations where no formal interoperability office exists, it is important to create the cultural norms that embrace interoperability and drive change from the bottom up, top down and middle out.

2. **Communications and Education Are Essential to Ensure Adoption and a Common Understanding**
    - Change is hard and confusing. This is especially true for projects that are as large, complex, and lengthy as interoperability. Clearly articulating the key messages frequently across the enterprise using multiple media vehicles is crucial for building awareness, supporting stakeholder engagement and sustaining engagement for the project. Ongoing education is key for broad scale understanding and adoption of new models and approaches. Utilizing tools and

materials from the Roadmap planning phase (video, presentations, research and graphics) can provide the basis for a comprehensive education program that can be disseminated across the state and counties rapidly.

- Based on the interaction and feedback from the symposium sessions a variety of tactics and media vehicles would be useful for communications. For internal communications, there was enthusiasm for developing and using Personas to sensitize and educate workers about the complex clients that are being served across the CHHS enterprise. Personas can help illustrate the multiple perspectives so that everyone involved can embrace a common vision of the client(s) that can be rapidly transmitted across departments, workers and systems.

3. **Adopting National Standards Will Encourage System Integration and Interoperability**
   - Shell Culp, Chief Deputy Director, California Office of Systems Integration reinforced the fact that OSI had adopted national architectural and information sharing standards going forward. These standards include Medicaid Information Technology Architecture (MITA), National Human Services Interoperability Architecture (NHSIA), HL-7, and National Information Exchange Model (NIEM). There should be no further confusion about whether national standards will be adopted by California. The challenge ahead is to inform and educate everyone at the state and county levels along with the vendor community about these standards and how they should be incorporated into projects and procurements.

4. **Funding and Procurement Procedures Need to Incorporate Language to drive IT Standards and Enable Reuse**
   - An important consideration for technology contracts is the need to incorporate specific language authorizing reuse of components for other programs. Today it is very difficult to reuse a component that the state and/or federal government already paid for if it is not explicitly indicated for reuse in procurement documents. Additionally, contracts should also include specific language about incorporating MITA, NHSIA, and information exchange standards as the basis for enterprise architecture and information sharing.
   - Today, programs or procurement actions are often funded by a grant or other source that restricts how the money may be used. This discourages interoperability and continues the existence of functional and programmatic silos. California and other states must work with funding partners to enable mixed funding sources for programs/projects and encourage the use and allocation of funds to support multiple purposes and initiatives.

5. **Culture Change is the Foundation for Realizing the Promise of Interoperability**
   - Transitioning from a culture of individual programs operating in service silos to a collaborative and interoperable environment is a significant and long term change effort. Adopting a repeatable process including common language and model will help communicate the changes and align interests and expectations. However, there was recognition that change will not happen by itself and that specific and sustained investments will be needed to change mind sets

to a more client-centered approach. The work conducted during the initial planning year should be leveraged, built upon and sustained over time.

6. **Focusing on Both Health and Human Services Is Necessary to Improve Outcomes and Efficiency**
   - The research from population health and social determinants clearly shows that overall health outcomes are dependent on people having access to a full spectrum of health and human service programs. Embedding this understanding inside CHSS will require ongoing education and training. It will require a change in behavior and ultimately a change to funding priorities. Bridging the health and human services divide will require documentation of outcomes to quantify the benefits and will serve as the basis for influencing investment strategies across CHHS.

7. **Workforce Development Is Necessary to Achieve Interoperability**
   - In response to the changing data sharing environment, Symposium II participants identified potential challenges related to ensuring the workforce is engaged in change processes, informed about interoperability and integration, and prepared to use new approaches to data sharing. Participant concerns focused on:
     - Skill set. Implementing interoperable and integrated business processes and systems and measuring the success of change requires a different skill set than many workers have today. State and county agencies and departments must either develop the appropriate skills among current workers or hire new staff with those skills.
     - Current workforce. A number of employees are near or reaching retirement at State and local levels and some are moving to other positions as openings occur. The resulting transition within organizations highlights resistance to change; and that, coupled with looming adjustments to job descriptions poses human resource and potential labor challenges.
     - New employees. A transfer of historical knowledge is key to effective transitions. Although new employees may be comfortable with electronic/new business processes, they may lack organizational historical context, thus making it difficult to build on established relationships and capitalize on previous lessons learned. To bring the full workforce up to speed, participant's emphasized need for a strong communication strategy that engages, informs, and educates on interoperability and integration. Identifying and communicating about new roles is also essential. Participants confirmed that implementation of strategies outlined in the Organizational Change Management roadmap is important in order to keep workforce apprised of what is changing and provide support during the transition to electronic data sharing.

Table 10 Synthesis Recommendations identifies the key activities recommended to address the synthesis theses from the second symposium categorized into near-, medium-, and longer-term. Since many of these recommendations emerged during the symposium they will need to be reviewed by leadership about whether to incorporate them into the overall plan going forward.

Table 10 Synthesis Recommendations

Synthesis Recommendations		
0-6 Months	**6 -24 Months**	**Beyond 2 Years**
• Define a common vision for interoperability. • Identify and recognize state and county interoperability champions. • Develop and begin to implement a communications plan for engaging a broad set of stakeholders about interoperability. • Further develop personas to support ongoing interoperability efforts. • Refine and develop materials to foster the cultural changes needed to adopt a client-centered approach. • Develop a detailed plan for integrating and sequencing interoperability activities across the driver areas. • Assess gaps in skills needed to achieve interoperability. • Disseminate information about the national standards California has adopted (MITA, NHSIA, NIEM, HL-7).	• With Federal, State, and County partners, establish a strategy and tactics for funding interoperable business, data, and technical architectures. • Identify the security standards and protocols California will adopt. • Implement governance activities (July 1, 2014). • Identify planned approach for achieving interoperability and adopting national standards in all major system changes and procurement activities. Based on lessons learned from early efforts, update procurement guidance to include interoperability aspects. Eliminate silos in the contracting and procurement process. • Champion and share ideas about how to change the culture, practices, and systems to provide a more client-centered approach. • Define and begin to implement workforce development plan to close skill gaps.	• Measure progress towards adopting a more client-centered approach. • Confirm a clear, complete, funded plan for adopting national standards in all California health and human services systems. • Make requisite training available to continue development and maintenance of workforce with appropriate skills to sustain interoperable policies, practices, and systems. • Initiate work on the other change drivers o Customer-centered focus o Building open and inclusive processes o Innovative funding streams o Building public and political will o Data and performance measurement systems o Bridging service silos

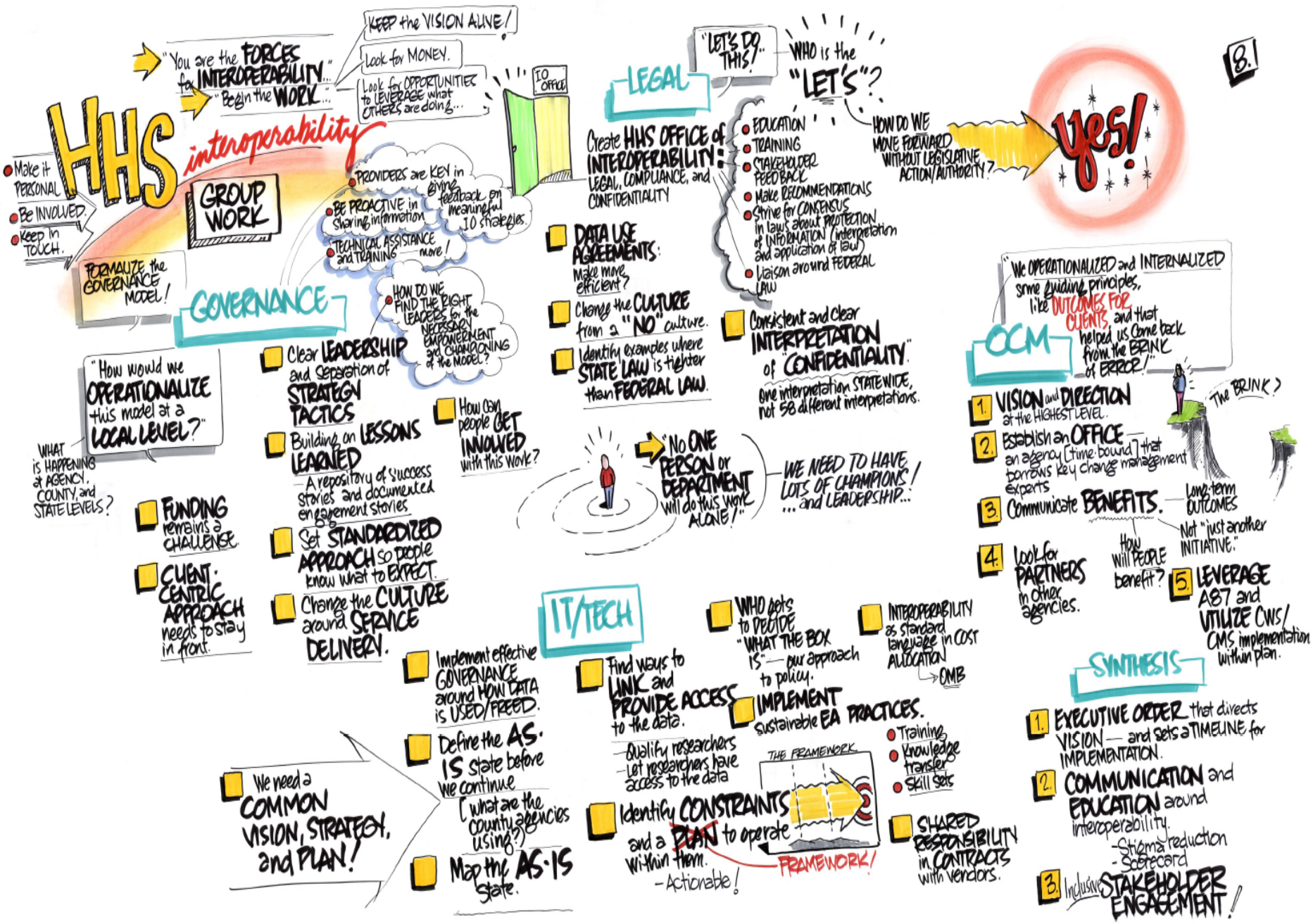
Conclusions

California's interoperability roadmap starts with tangible actions that can quickly demonstrate value across multiple departments within the domains of governance, legal, technology and organizational change management. These successes can be leveraged to build support and momentum for the larger and longer-term integration and interoperability initiatives. Practically speaking, CHHS could leverage the momentum and learning from the Psychotropic Medication Approval (PMA) process Proof of Concept to demonstrate the ability to share information from multiple sources with multiple stakeholders and across multiple programs. This demonstration provides tangible evidence of the benefits and possibilities for interoperability solutions that touch multiple departments.

An underlying assumption of the interoperability roadmap is that changing how work gets done requires a change in the value system of the organization. Changing value systems is adaptive work, not technical work. Technical challenges can be defined as challenges that can be defined and solutions are known. Adaptive challenges can be difficult if not impossible to define, and solutions are not known. When adaptive challenges are addressed with technical solutions they are destined to fail. So addressing needed changes will require learning, and the roadmap and methodology facilitates that process.

Long term, successful implementation will require an ongoing commitment to focus on all ten change drivers and their impact on the evolving environment within CHHS along with state and local government. Adaptability and agility will be required to keep pace with the one constant: change.

Figure 30 Four Committee Synthesis Mural



APPENDIX A Glossary

Application Architecture – Defines the major applications or service components needed to manage data and support business functions.

Architecture – A set of design artifacts, or descriptive representations, that is relevant for describing an object such that it can be produced to requirements (quality) as well as maintained over the period of its useful life (change). [John Zachman & adopted by the Federal Chief Information Officer Council]

Architecture Drivers – The external component of the California Enterprise Architecture Framework representing an external stimulus, which causes the enterprise architecture to change. Architecture drivers consist of two sub-components: business and design drivers.

Architecture Product – The structure of components, their interrelationships, and the principles and guidelines governing their design and evolution over time. Architecture products include Business Models, Data Models, Application Models and Technology Models. [IEEE STD 610.12 and adopted by Federal Chief Information Officer Council]

Architecture Segment – Focus on a subset or a specific business area within the enterprise. It can be considered to be an event-driven process, such as grants, that crosses the enterprise and has commonality of process, data, components, and technology. Each architecture segment is composed of current and target architectures, limited in scope by the focus of the segment.

Architecture Services – The services use the products for recommendations to information technology decision makers. Services will be more clearly defined as enterprise architecture matures.

Business Architecture – Defines business processes, information flows, and information needed to perform business functions.

Business Drivers – A type of architecture driver that identifies the strategic business needs an information technology environment must support.

Business Reference Model (BRM) – A function-driven framework for describing the business operations of the state government independent of the agencies that performs them. The Business Reference Model provides an organized, hierarchical construct for describing the day-to-day business operations. [Federal Enterprise Architecture Program Management Office]

California Enterprise – Defined as those agencies, departments, boards, bureaus and commissions within the Executive Branch of California government. However, the California Information Technology Council and the State Chief Information Officer may choose to expand the scope of the California Enterprise Architecture to include entities in other branches, cities, and counties.

California Enterprise Architecture – A blueprint to assist in optimizing the interdependencies and interrelationships among the state's business operations and the underlying information technology that support these state operations.

California Enterprise Architecture Framework – An organizing mechanism for managing development, maintenance, and facilitated decision-making of the California Enterprise Architecture. The framework provides a structure for organizing state resources and for describing and managing state enterprise architecture activities.

Current Architecture – Represents the current state or baseline for the enterprise. In terms of the California Enterprise Architecture Framework, the current architecture includes business, data, application, and technology.

Data Architecture – Consists of among others, data entities, which have attributes and relationships with other data entities. These entities are related to the business functions.

Data Reference Model (DRM) – Describes the data and information that support the state's business operations from a statewide perspective.

Design Drivers – A type of architecture driver that identifies a technology change that can represent revolutionary ways of meeting state business needs.

Enterprise – An organization supporting a defined business scope and mission. An enterprise is comprised of interdependent resources (people, organizations, and technology) that should coordinate their functions and share information in support of a common mission (or set of related missions). [Treasury Enterprise Architecture Framework]

Enterprise Architecture – A strategic information asset base, which defines the mission; the information necessary to perform the mission, the technologies necessary to perform the mission, and the transitional processes for implementing new technologies in response to changing mission needs; and includes a baseline architecture, a target architecture, and a sequencing plan. [Federal Enterprise Architecture Framework]

Enterprise Architecture Principles – Represent the criteria against which all potential investment and architectural decisions are weighed.

Federal Enterprise Architecture Framework (FEAF) – The Federal Enterprise Architecture Framework is an organizing mechanism for managing development, maintenance, and facilitated decision-making of the Federal Enterprise Architecture. The framework provides a structure for organizing federal resources and for describing and managing Federal Enterprise Architecture activities.

Federated Enterprise Architecture – Defines common or shared architecture standards across autonomous program areas, enabling state government entities to maintain diversity and uniqueness, while providing interoperability. [Federal Enterprise Architecture Framework]

Framework – A logical structure for classifying and organizing complex information. [Federal Enterprise Architecture Framework]

Goals and Objectives – Part of the strategic direction describing opportunities to accomplish the vision.

Information Management – The planning, budgeting, manipulating, and controlling of information throughout its life cycle. [Federal Chief Information Officer Council]

Information Technology Patterns – Identifies how a set of technology elements should interact and be deployed to best deliver particular types of applications or systems.

Line of Business – The purpose of government in functional terms and the support functions the government must conduct in order to deliver services to citizens.

Methodology – A documented approach for performing activities in a coherent, consistent, accountable, and repeatable manner. [Treasury Enterprise Architecture Framework]

Principles – Statements that guide design decisions, serve as a tiebreaker in settling disputes, and provide a basis for dispersed, but integrated, decision-making.

Reference Model – A framework for understanding significant relationships among the entities of some environment, and for the development of consistent standards or specifications supporting that environment. A reference model is based on a small number of unifying concepts and may be used as a basis for education and explaining standards to a non-specialist. [Federal Chief Information Officer Council]

Segment – A targeted line of business that typically slices through all four architecture domains.

For the architecture in five years, principles for guiding the architecture evolution, and goals and objectives for managing it and determining progress towards achieving the vision.

System – A collection of components organized to accomplish a specific function or set of functions. [IEEE STD 610.12]

Target Architecture – Represents a desired future state or "to be built" for the enterprise within the context of the strategic direction. In terms of the California Enterprise Architecture Framework, the target architecture includes business, data, application, and technology.

Technical Reference Model – A framework used to identify and organize the standards, specifications, and technologies that support and enable the delivery of the state's business services and capabilities.

Technology Architecture – Defines the technology environment for the enterprise showing actual hardware and systems software at the nodes and lines and their systems software, including operating systems and middleware.

Transitional Processes – These processes support migration from the current architecture to the target architecture. Examples include: investment management review, segment coordination, market research, asset management, procurement practices and architecture governance.

Vision – A succinct and strategic statement describing the targeted end state for the architecture in five years. The vision provides strategic direction and is used to guide resource decisions, reduce costs, and improve mission performance.

APPENDIX B References

Stewards of Change Human Services 2.0

http://stewardsofchange.com/how-we-do-it/pages/human-services-2.aspx

Patient Protection and Affordable Care Act (PPACA)

http://www.hhs.gov/opa/affordable-care-act/index.html

Office of Management and Budget (OMB)

http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-16.pdf

The remaining variance is shaped by health behaviors (up to 30 percent), socioeconomic factors (up to 40 percent) and physical environmental factors (up to 10 percent). Minnesota ICSI, based on University of Wisconsin Analysis in ACO and community health white paper.

https://www.icsi.org/health_initiatives/accountable_health/

The conceptual foundation of the GFIPM project is the idea of federated identity and privilege management (FIPM). FIPM is an extension of the more common concept of federated identity management, which provides the ability to separate the management of user identities from the management of the systems and applications in which those identities are used. In a federation, user identities are managed by identity providers (IDPs) and applications and other resources are managed by service providers (SPs).

"Domain refers to a business enterprise broadly reflecting the agencies, units of government, operational functions, services, and information systems that are organized or affiliated to meet common objectives." NIEM 101, Technical Introduction to NIEM.

https://www.niem.gov/training/Pages/classroom.aspx

NIEM is a Federal, State, Local, Tribal, and Private inter-agency initiative providing a foundation for seamless information exchange. (https://www.niem.gov/)

HL7 is an international organization of healthcare stakeholders with the vision of creating the best and most widely used information exchange standards in healthcare. (http://www.hl7.org/)

APHSA (American Public Health Services Association). The National Workgroup on Integration issued technology guidance for State HHS leaders, business model guidance, a report that identifies critical success factors for agency transformation, and a series of webinars on health and human services interoperability and integration. (http://www.aphsa.org/)

NASCIO (National Association of State Chief Information Officers) has a wealth of information about best practices, information management, and technology policy. Recent publication topics include cloud computing, identity and access management, collaboration initiatives, cyber-security, and enterprise architecture. (http://www.nascio.org/)

Use common or uniform confidentiality/privacy agreements consistent with Federal and State laws

http://www.chhs.ca.gov/initiatives/Olmstead/Documents/CaliforniaChildWelfareCouncil_2012DataStatement.pdf

Build these services on existing and emerging standards. From: CA Health Information Exchange (HIE) Strategic and Operational Plan (SOP) 2012-10-26. 1.5.2.1 Trust Environment

Audit - What information is needed or required for the purposes of auditing systems, systems access and use, and legal compliance of data practices? Global Federated Identity and Privilege Management, accessed August 1, 2013.

Successful implementation of the federated approach, to achieve business outcomes that matter, requires consistent understanding of enterprise architecture concepts, laser focus on creating business-outcome-driven actionable EA deliverables, and uniform implementation of EA programs within and across state agencies

http://www.cio.ca.gov/wiki/Enterprise%20Architecture.ashx

Within CHHS, the Office of Systems Integration's "mission is to procure, manage, and deliver technology systems that support the delivery of health and human services to Californians."
http://www.osi.ca.gov/index.shtml

OSI provides best practices guidance to manage large-scale IT projects
http://www.bestpractices.osi.ca.gov/

Within CHHS, the Department of Social Services (DSS) has established a position (Assistant Director for Horizontal Integration) to analyze "the opportunities for interoperable and integrated health and social services in light of California's implementation of federal health care reform
http://techwire.net/dondro-departs-technology-agency-as-external-affairs-director-for-dss-assistant-director-position/

Within CHHS, the Department of Health Care Services (DHCS) has drafted a vision for transforming and innovating to achieve its commitments. The vision strategy drawing depicts a future architecture at MITA maturity levels 3-5.
http://techwire.net/wp-content/uploads/2013/05/May31Presentation.pdf

Stewards of Change InterOptimability
http://stewardsofchange.com/how-we-do-it/pages/hs2-inter-optimability.aspx

APPENDIX C Committee Structures

Governance Committee Structure

The Governance Committee was chaired by Gretchen Hernandez, CHHS Deputy Agency Information Officer and Chief Information Officer of the CHHS Office of Systems Integration, and the membership included representatives from the CHHS Agency, as well as other state and county health and human services departments. Additionally, representatives from the state of Illinois's Interoperability and Integration Project also participated in the committee. Refer to Attachment A (Governance Committee Membership List).

The Governance Committee structure and process was based on its members reviewing and providing feedback on a draft governance model, and supporting work products, developed by the CHHS Agency to promote interoperability across CHHS Agency's offices and departments. The committee convened a total of three times to review the governance model and its work products. During these sessions the committee provided updates and status reports regarding the deliverables, aligned with and provided guidance to the other committees and address feedback from members to determine if changes and/or updates were applicable to the governance model or associated work products.

Chair: Gretchen Hernandez (OSI)	Subject Matter Expert: Richard Gold (SOC)	Valerie Early (Contra Costa County)
Adam Dondro (CDSS)	Caroline Bolton (OSI)	Carrie Miller (Los Angeles County)
Erica Pixton (CDSS)	Dan Louis (OSI)	Carrie Hoff (San Diego County)
Nola Niegel (CDSS)	Debbie Rose (OSI)	Nick Macchione (San Diego County)
Jerry Scribner (CHHSA)	John Roussel (OSI)	Belinda Benassi (San Luis Obispo Co.)
Merry Holliday-Hanson (OSHPD)	Mark Owens (OSI)	Pamela Grothe (Ventura County)
Ron Springham (OSHPD)	Kathleen Monahan (Illinois)	Sarah Nemeck (Illinois)

Legal Committee Structure

The SSIIP Legal and Confidentiality Committee was chaired by Larry Bolton, serving as Special Counsel to Shell Culp, Deputy Director, California Health and Human Services Agency. Mr. Bolton's dedication to interoperability to better serve clients receiving simultaneous services by multiple organizations, resulted in a high level of interest in the SSIIP effort by his colleagues at both the State and county levels. Mr. Bolton's personal outreach included presentations at the State Blue Ribbon Commission on Foster Care, the State Child Welfare Council, CHHS and departmental chief counsel meetings, and county counsel convening's, as well as direct contacts to judges, federal counsel, and advocacy groups.

As a result, there was an extensive membership on the Legal and Confidentiality Committee which was representative of CHHS departments, counties, and advocate organizations.

Chair: Larry Bolton, CHHSA/CDSS Chief Counsel (Retired Annuitant)

Subject Matter Expert: Richard Gold, SOC Subject-Matter Expert

Staff Support: Glenn Freitas and Linda Hockman, Staff Support

LEGAL AND CONFIDENTIALITY COMMITTEE MEMBERSHIP		
Jerry Scribner CHHSA	Dan Louis OSI	Kristin Baker Orange County
Victoria Wu Alameda County	Kristina Robb San Bernardino County	Carrie Miller Los Angeles County
Pamela Grothe Ventura County	David Nelson San Diego County	Janine LaMar CDSS
Kim Heartley-Humphrey OSI	Sue Diedrich CDSS	Chris Wu AOC
Maria Ramiu Youth Law Center	Raul Ramirez DHCS	Kevin Gaines CDSS
Jim Owens Los Angeles County	Ron Springarn OSHPD	Greta Wallace CDSS
Ali Mansfield	Mark Owens	Caroline Bolton

LEGAL AND CONFIDENTIALITY COMMITTEE MEMBERSHIP		
CDSS	OSI	OSI
Douglas Press DHCS	Karen Fruchtenicht CDSS	Christie Guisti CDSS
Penny Caryl-Davis CDSS	Debra Ichimura Cal OHII	Lisa Hightower DHCS-ADP
Kathleen Keeshen DPH	Kelly Hargreaves CDOR	Anastasia Baskerville CDSS
Sharon Reali CDSS	Morgan Staines MRMIB	Belinda Whitsett CDPH
Hiren Patel CDDS	Vallene Indvik CDSS	Ronn Kaiser CSD
Steven McGee EMSA	Jim Blevins CDSS	Chisorom Okwuosa CDA
Elizabeth Wied OSHPD	Randall Harris Los Angeles County	Kathy Hrepuch CDCSS
Gary Cohen HBEX	Holly Pearson DMHC	Laura Rosenthal MRMIB
Cynthia Rodriguez DMH	Jennifer Schwartz OHI	

The committee met on three different occasions. The completed work is described below. Action items for the next six (6) months and beyond is described in Table 4 Legal and Confidentiality Recommendations

OCM Committee Structure

The OCM Committee was chaired by Shell Culp, Chief Deputy Director, Office of Systems Integration, Health and Human Services Agency, and Richard Schleusener, Stewards of Change, who provided subject matter expertise. Attendees from the first SSIIP Symposium volunteered to participate on the committee and included representatives from CHHS and state and county health and human services departments:

Karen Cagel, Department of Social Services	Valery Earley, Contra Costa County	Melody Hayes, Office of Systems Integration
Carrie Hoff, San Diego County	Nick Macchione, San Diego County	Kim Heartley-Humphries, Office of Systems Integration
Mary Shamouel, Santa Clara County	Linda Hockman, CHHS OSI	John DeVere, Alexan International

The OCM Committee convened three times and utilized output from the symposium and analysis of an abbreviated form of the Human Services 2.0 Readiness for Change Assessment to draft an organizational change roadmap for data sharing.

IT Committee Structure

To support the project, the initial members of the IT Committee:

- Conducted webinars about two national architecture frameworks, the National Human Services Interoperability Architecture (NHSIA) and Medicaid Information Technology Architecture (MITA), related information exchange standards, and key concepts related to NSHIA.
- Provided information to guide the development of the Proof of Concept Request for Demonstration.
- Generated information about the As-Is technology landscape within the California Health and Human Services Agency. The information was reviewed at the first SSIIP Symposium and informs the final State plan.
- Drafted a To-Be vision of interoperability supportive of the ACF's three goals for this funding opportunity (improvement in client service delivery, reduction in errors/integrity improvement, improvement in administrative efficiency).

Dr. Linette Scott* (Chief Medical Officer, [Department of Health Care Services (DHCS)], a key SSIIP leader and champion for interoperability, chaired the IT Committee. Project staff [Valerie Barnes* (subject

matter expert), Linda Hockman*, and Glenn Freitas*] provided support. Other project staff (Laura Beeman, John DeVere*, Richard Gold, Michael Kerr*, Bill Parcell*, and Daniel Stein*) participated in committee meetings.[19]

Stakeholders who volunteered for this committee who participated in at least one committee meeting included:

Este Geraghty [CA Department of Public Health (CDPH)]	Barbara Needell (University of CA Berkeley)
Kira Merrick (DHCS)	Emily Putnam-Hornstein (UC Berkeley)
Sheila Thompson (DHCS)	Don Edwards (Alameda County)
Ben Word* (DHCS)	Ali Farahani (Los Angeles County)
Lindsay Farris [Department of Social Services (DSS)]	Snorri Ogata (Orange County)
Kevin Gaines (DSS)	Carrie Hoff (San Diego County)
Sarah D'Eon (OSI)	Richard McWilliams (San Diego County)
Ben Hafer (OSI)	Adrienne Perry (San Diego County)
John Roussel* (OSI)	Julie Lemen (San Luis Obispo County)
	Mary Shamouel (Santa Clara County)

The full IT committee:

- Included representatives from state health and human services departments and county agencies.
- Developed IT-related recommendations for the state's Interoperability Plan, building on the draft To-Be vision and the roadmap exercise at the first SSIIP Symposium.
- Convened four times. Discussions focused on:
    - Draft vision, elements of the enterprise architecture, fundamental ideas and concepts
    - High-priority processes and capabilities
    - What data needs to be shared
    - Recommendations and potential barriers
    - Leveraging ongoing/upcoming projects

[19] Names marked with an asterisk (*) were initial members of the IT Committee.

- Areas where support is needed from other committees

The meetings were hosted by Dr. Linette Scott in a conference room. Remote participants dialed in and were able to view materials projected via GoToMeeting technology.

To facilitate the committee process, these materials were developed:

- IT committee work plan
- Presentation and educational materials
- To-Be Key Concept slide deck
- Identity management, access control, and security references white paper
- Notes reflecting the discussion at each meeting

Materials were stored in a SharePoint site established by Stewards of Change.[20]

Materials were stored in a SharePoint site established by Stewards of Change (National Interoperability Community of Practice). See the California Symposia | HHS Interoperability Symposium (2013) | SSIIP Working Groups | Information Technology section.

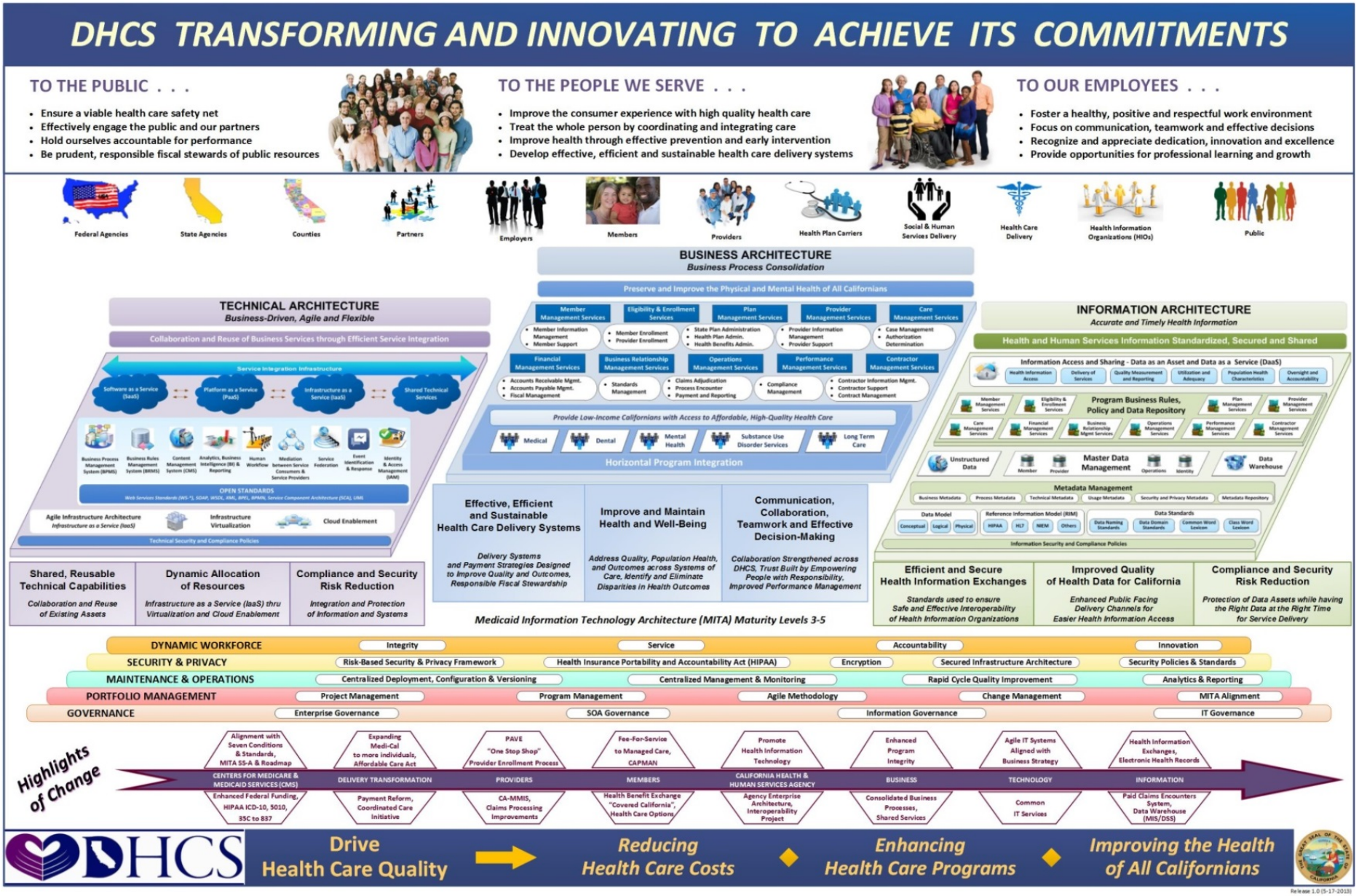
[20] National Interoperability Community of Practice. See the California Symposia | HHS Interoperability Symposium (2013) | SSIIP Working Groups | Information Technology section.

APPENDIX D Draft Architecture Illustrations

Section 3.2.2.1.5 defined several potential sources for enterprise architecture ideas across health and human services in California. Initial members of the IT committee used the DHCS architecture diagrams and NHSIA information as the foundation for beginning the process of integrating California's health and human services architectures. This appendix shows the results of those preliminary efforts. The material is in draft form and will require significant effort from many other stakeholders to reach a vision for truly integrating health and human services architectures. Outputs from the counties' architectures, other departments' architectures, and state-level enterprise architecture framework and reference architectures should inform the effort.

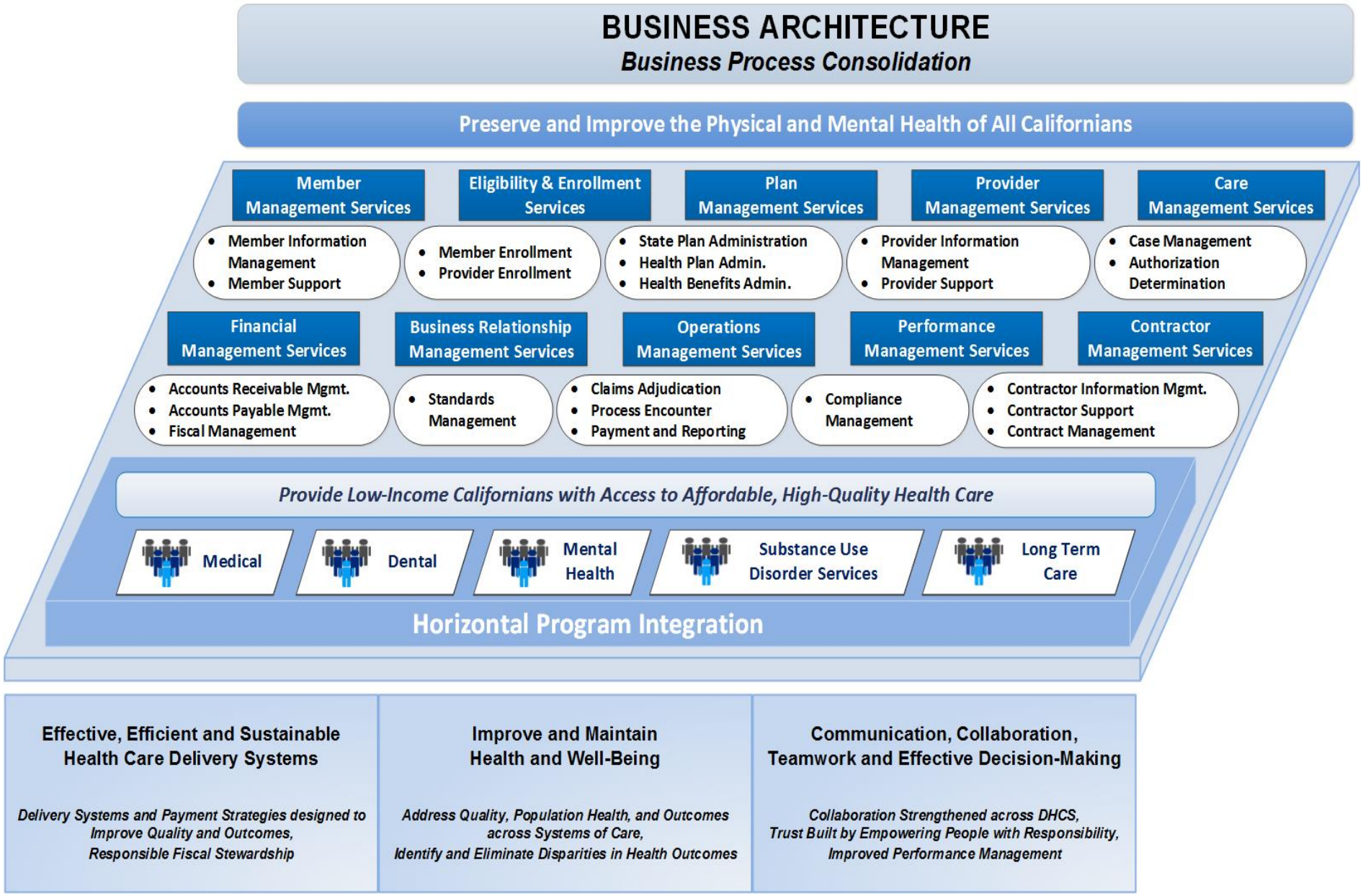
This source (health services) diagram from DHCS depicts the major elements (business, information, and technical) used to begin the process of developing an integrated health and human services enterprise architecture.

Figure 31 DHCS Transforming and Innovating to Achieve Its Commitments



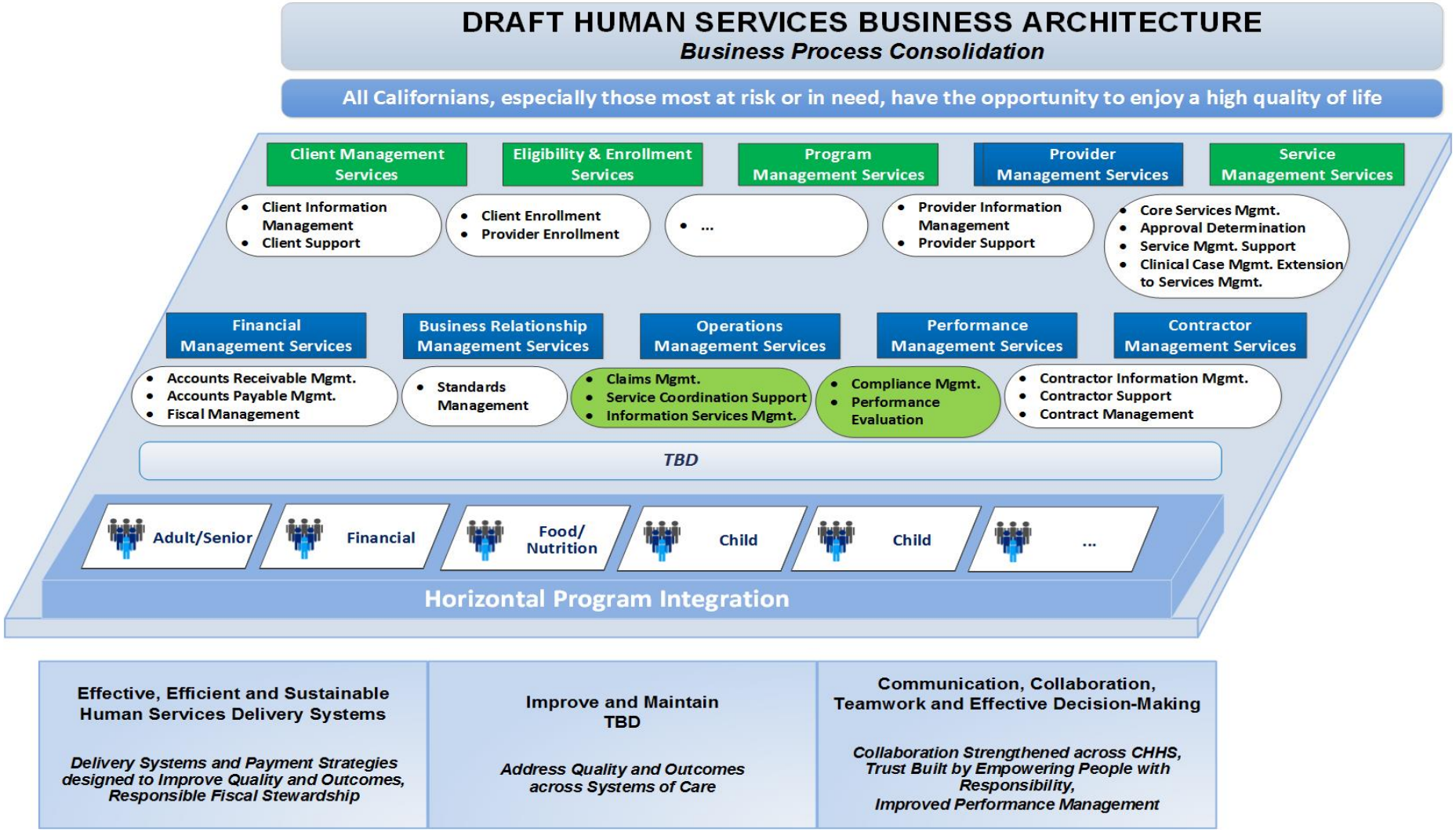
The DHCS (health services) business architecture aligns with MITA.

Figure 32 DHCS Business Architecture



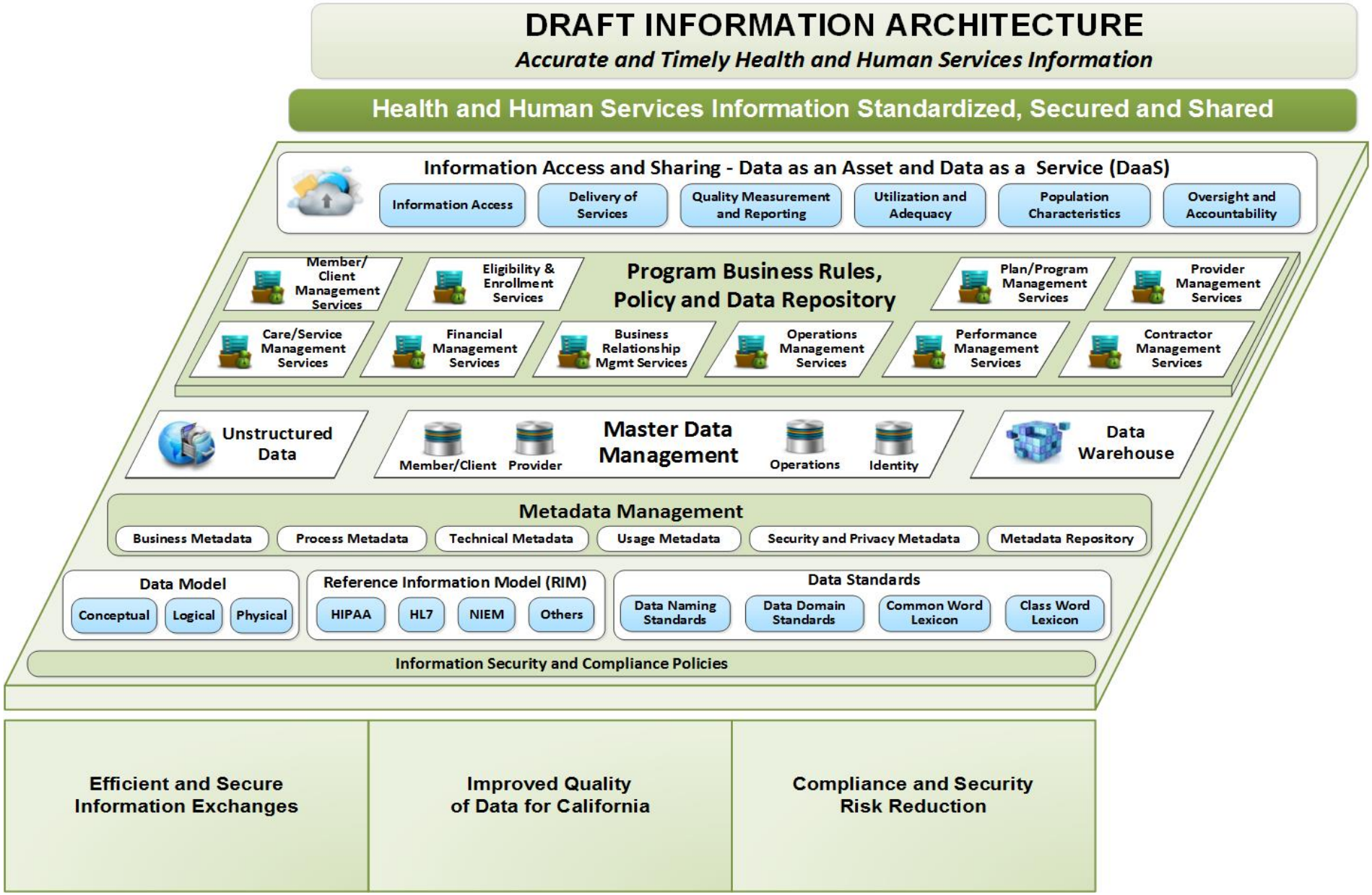
This DRAFT human services business architecture is based on NHSIA and modeled after the DHCS business architecture.

Figure 33 Draft Human Services Business Architecture



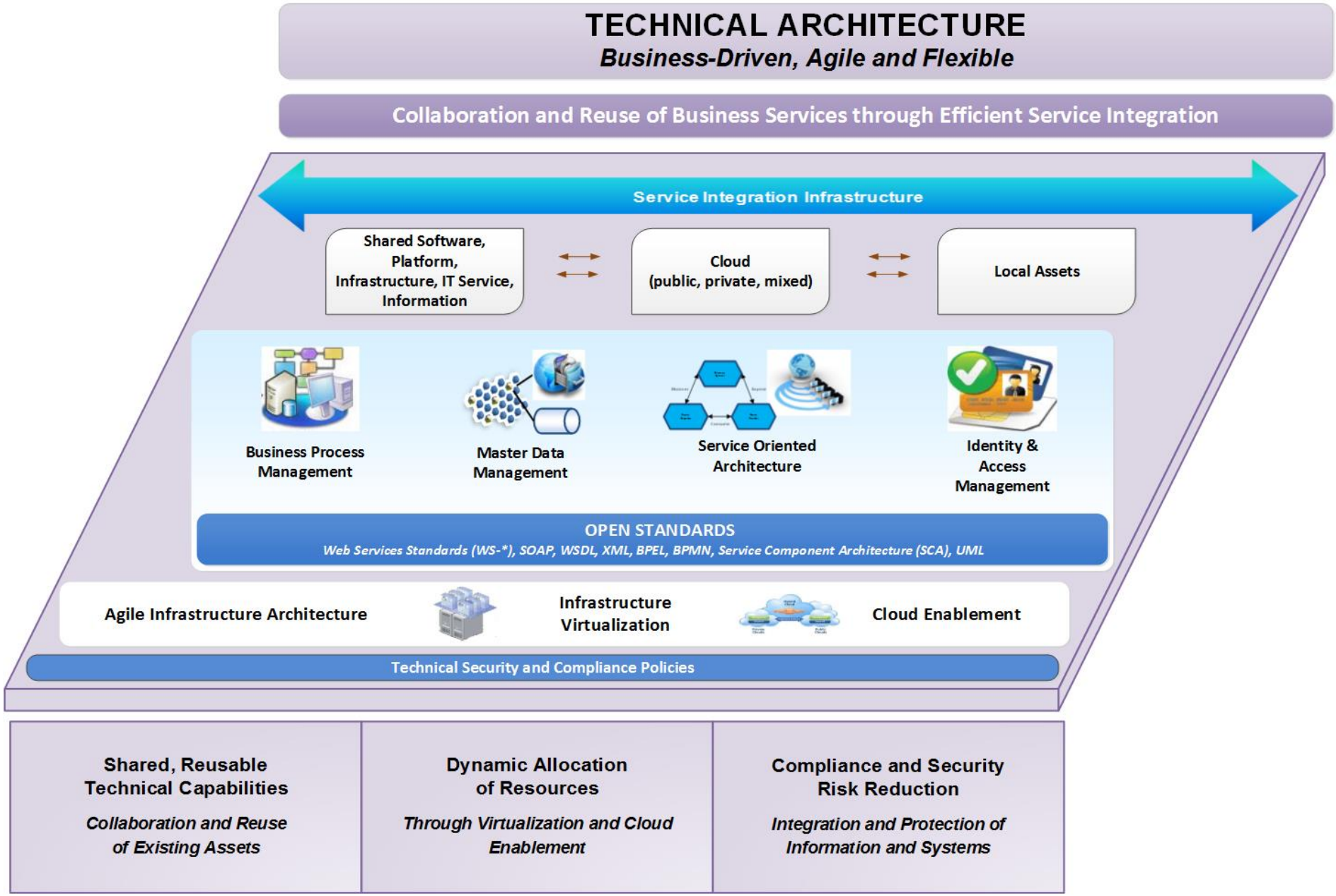
This DRAFT health and human services information architecture is modeled after the DHCS information architecture.

Figure 34 Draft Information Architecture



This DRAFT health and human services technical architecture is modeled after the DHCS technical architecture.

Figure 35 Technical Architecture



APPENDIX E California Systems Integration and Interoperability Symposia

The Office of Systems Integration (OSI), from within the California Health and Human Services Agency (CHHSA), worked with several departments and vendor organizations (Stewards of Change and Alexan International) to plan and convene two Interoperability symposia. The Symposia were designed to build consensus and support the development of California's HHS interoperability vision and roadmap for programs and services. The events were convened in May and September 2013 in Sacramento, California and were titled *California Systems Integration and Interoperability Symposium* (aka *Symposium I*) and *California Systems Integration and Interoperability Symposium II*, respectively.

The Symposia brought together a large representative group of key California HHS stakeholders to develop a California Interoperability Roadmap (CIR) for increased cross-system, cross-agency and cross-program information sharing and improved service coordination. These events provided a unique opportunity for county, state, and judicial leaders to interact in a productive and collegial manner which contributed to the ongoing working relationships. A participant in *Symposium I* noted that the convening marked the very first time that he had been able to engage -- in one room at the same time -- with lawyers representing three levels of government (federal, state, and county).

The paragraphs following describe the goals, planning process, key agenda elements, artifacts produced, and major outcomes of *Symposium I* and *Symposium II*.

E.1 Symposium I

Symposium I Goals

The methodology employed for the May 2013 *Symposium I* was designed to actively engage all participants in discussion, ideation, creation and synthesis activities to maximize comprehension of interoperability and integration concepts. Further, the agenda and session plans were developed with the goal of enhancing participants' ability to act as change agents for interoperability and integration in their respective organizations.

In *Symposium I*, the project team chose to use tools and methods that had been previously successfully deployed in Stewards of Change' National Symposia, leadership seminars, conferences, and workshops conducted across the country over the past eight years.

The *Symposium I* agenda plan was drafted with a similar focus on real-world change goals; so that participants are informed well to analyze key issues and equipped to take action to increase California's overall HHS enterprise interoperability. In the case of *Symposium I*, the project team customized the agenda to achieve the following goals:

- Prepare a draft roadmap for information sharing, interoperability and service improvements among HHS agencies throughout California;
- Identify real and perceived barriers to information sharing that can be surmounted through innovations in program management and policy-making, with a focus on resolving issues inherent in the protection of confidential information;
- Develop an understanding of the emerging governance, legal and technological models that will enable information exchange in the future; and,

- Create connections among attendees to accelerate the sharing and adoption of a vision and strategy for improving integration and interoperability across health and human services in California.

Symposium I Planning Process

The *Symposium I* planning team, comprised of OSI and contractor executives and staff, participated in the process to plan and deliver the California Systems Integration and Interoperability Symposia. During the planning process for *Symposium I*, the team held weekly meetings and planning calls, both in-person in Sacramento and via weekly conference calls, during the months of February - May 2013.

Key elements of the Symposium I planning process included:

- Development of *Symposium I* goals, mapping out the planning process to attain goals.
- Invitation development, communication, and management
- Invitee list development and registration management
- Symposium agenda development and publication
    - Symposium speaker invitation and presentation planning
- Symposium meeting material development and publication
- Venue and meeting support logistics planning and execution
    - Convention site, hotel room block, meeting catering, and audio visual services
- Symposium media/visual services acquisition and delivery
    - Video services and graphic art services
- Symposium execution
- Symposium artifact accumulation and posting to internet-based Collaboration space
- Event debriefing meetings.

Presenters and Participants:

Symposium I invitations were extended to over 200 representatives of California state and county HHS organizations, California state and county courts, federal HHS representatives and agency leaders, leaders of ACF Interoperability Grant projects in other states, legal and information systems experts, and advocacy groups and foundations. A cross-section of this community was featured on the *Symposium I* agenda as presenters. Likewise, the Symposium sessions and workshops were organized in a way that ensured that a widely representative group would be in attendance, and that participants with diverse viewpoints and experiences would be leading panel discussions or engaging in interactive workshop conversations. A full list of organizations and jurisdictions represented at Symposium I is enclosed on the following page.

Key Agenda Elements:

The *Symposium I* agenda incorporated an array of tools, assessments, and interactive workshops based on Stewards of Change' Symposium methodology. Specific components of the agenda included:

- *Baseline and Readiness Assessments* – These sessions provide a baseline for understanding current competencies and also for measuring and comparing change over time.

- *Facilitated Discussions* – These are used as the basis for gathering data, researching key drivers and trends, articulating the current ("As Is") environment for the entity, and setting the visionary future ("To Be").
- *Interactive Workshops* - The Vision landscape and change roadmaps produced during sessions articulate core principles, actionable steps and intended outcomes that are essential for tracking results, accomplishments and progress. This information can be used to create detailed project plans that can be used to track and manage the planning and implementation process

Final Symposium I Agenda

The full, final version of the *Symposium I* annotated agenda is included at the back of this Section.

Key Symposium I Facts

The *California Systems Integration and Interoperability Symposium I* was held on May 21 – 23, 2013 at the Sacramento Convention Center in downtown Sacramento.

There were 135 registrants for *Symposium I*. A list of participating organizations and jurisdictions includes:

- Administrative Office of the Courts
- California Assembly
- California Judicial Commission – Blue Ribbon Commission
- California Employment Development Department
- California Community Colleges
- California Department of Health Care Services
- California Department of Social Services
- California Department of Public Health
- California Department of Mental Health
- California Department of Alcohol and Drug Programs
- California Third Circuit Court
- California Fourth District Court of Appeals
- California Health and Human Services Agency
- California HHS Agency, Office of Systems Integration
- California Office of Health Information Integrity
- California Office of Statewide Health Planning and Development
- California Senate
- California Technology Agency
- CalVet
- Center for Children and Family Futures
- County of Alameda
- County of Butte
- County of Contra Costa
- County of Kern
- County of Los Angeles
- County of Los Angeles Superior Court
- County of Monterey
- County of Napa
- County of Orange
- County of Sacramento
- County of San Bernardino
- County of San Diego
- County of San Luis Obispo
- County of Santa Clara
- National Center for Youth Law
- State of Illinois, Illinois Framework
- Prevention Institute
- Public Policy Institute of California
- Stuart Foundation
- UC Berkeley
- UC Davis

- Youth Law Center
- U.S. Dept. of HHS, Administration for Children and Families
- U.S. Dept. of HHS, Federal Region IX

Major Symposium I Artifacts

The materials and resources generated during *Symposium I* have been stored in a publicly-accessible web Collaboration space, managed using Microsoft SharePoint. Each of the sessions was videotaped and graphically illustrated to provide a full recap of the proceedings. This work was done to facilitate ongoing engagement with, and support for, California HHS organizations and with other jurisdictions around the United States as they continue their systems and services integration and interoperability projects.

To access the materials generated at our California Interoperability Symposia, please visit: CHHS Interoperability Symposium 2013. On this site, readers can locate materials generated and shared prior to, during, and following *Symposium I* including event agenda, presentation slide decks, session videos, State and County Interoperability planning materials, white papers, and our graphic art landscapes. Further, the OSI team has posted materials relating to the Request of Demonstration for an HHS Interoperability Proof of Concept demonstration that was issued immediately following *Symposium I*.

Symposium I session videos are also posted to the Stewards of Change channel at youtube.com:

http://www.youtube.com/playlist?list=PLeI2juMpKM4OjEz63ds93ngyaMz77HiL1

Symposium I - Closing Summary

The Symposium process and approach is designed to begin California's overall journey toward information sharing and interoperability, with the twin goals of enhancing client outcomes and improving operational effectiveness within HHS programs and systems state-wide. The Symposium methodology provided a unique opportunity for in-depth discussions on all aspects of CHHSA programs with domain experts from around the state and beyond California. The Symposium team worked to create a powerful combination for success based on: 1) a select group of people with responsibility for CHHSA programs and services; 2) directed discussions and workshops that result in the development of content and deliverables that support planning and implementation well beyond the life of the event; and, 3) bringing an infusion of positive thinking to energize participants as they return home to face often-challenging routes toward integration and interoperability within their organizations.

In a medium-to-long-term process that may take a decade to complete, the success of a single event in beginning that journey is difficult to gauge. In its debriefing meetings, and over the months following the event, the project team identified the following accomplishments enabled by *Symposium I* that are expected to influence the overall success of the California Interoperability Roadmap (CIR).

- The formation and staffing of four Committees (Legal and Confidentiality, Technology, Governance, and Organizational Change Management) to participate in further refinement and development of the HHS Interoperability Plan. These Committees have been instrumental in driving subsequent work over the three months between Symposium I and II.
- The first Symposium enabled the development of a consensus agreement on timing of the CIR and setting priority goals, over short (6 months), medium (2 years) and longer term (beyond 2-years) timeframes.
- The Symposium I agenda featured discussions that were relevant to the State's "real world" operational systems and projects. By focusing a portion of the agenda on a current case example – the development of an Interoperability Proof of Concept and Request for

Demonstration for California's Foster Care system – the event drove home the importance of change to a more integrated set of services and systems, presented a conceptual framework for that change, and proposed the development of pathways toward a new "To-Be" state.

California Systems Integration and Interoperability Symposium I – Final Program

May 21 – 23, 2013 – Sacramento, CA

Tuesday, May 21, 2013
10:30 -12:00 Registration and Networking (Lunch on your own prior to start of symposium)
12:00 – 12:30 Welcome and Introduction To kick off the first symposium, the sponsor of the Golden State's Systems and Services Integration and Interoperability Project will outline the purpose and intended outcomes of the California HHS Interoperability Symposium, as a precursor to the important work at hand – creating a roadmap for information sharing, interoperability and service improvements among HHS agencies throughout California. Presenters at this session will also brief participants on the overarching goals of the State of California's Interoperability Grant, one of seven state grants funded by the U.S. Department of Health and Human Services Administration for Children and Families. Presenter: Shell Culp, Chief Deputy Director, California Health and Human Services Agency, Office of Systems Integration; Project Sponsor, Systems and Services Integration and Interoperability Project (SSIIP)
12:30 – 1:00 Overview of the Agenda, Approach and Prior Learning In this session, the presenter will delve deeper into the agenda and the desired takeaways from each section and also provide an orientation to the key concepts, approaches, and tools that will be used during the symposium to increase awareness and understanding of overall goals, opportunities, challenges and potential solutions for increasing information sharing and enhancing interoperability. Further, the presentation will examine relevant elements and lessons learned drawn from prior Symposia and put sharper focus on the concepts encompassed in SOC's *Human Services 2.0* methodology guiding this initiative. Facilitator: Daniel Stein, Managing Partner and Cofounder, Stewards of Change
1:00 – 2:45 Interactive Session - Transforming Policy, Structure and Practice to Achieve Interoperability During this first Interactive session we will begin to identify the key policy, structure and practice considerations that participants believe the State of California and California counties need to address to reach their longer-term interoperability goals. Through a peer-interview process participants will focus on the most significant opportunities and barriers to health and human service transformation that will impact interoperability and information sharing over the coming months and years. Key findings, observations, questions, and hypotheses from these conversations will be recorded using a graphic mapping process. We will use these artifacts to build our roadmap throughout the Symposium. These materials, along with videos and other presentation content, will comprise a summary at the completion of the Symposium. Facilitator: Daniel Stein and Stewards of Change Team Members
2:45 – 3:15 Break
3:15 - 4:15 Making The Case for Improving Information Sharing and Interoperability in California

Speakers at this session will offer their perspectives on the value and urgency of pursuing horizontal and vertical information sharing among California's health and human service programs and service providers. By accomplishing this goal, it will benefit systems outside of these programs, including the courts, correctional systems and educational institutions. The presenters will articulate the value proposition and intended outcomes from connecting health and human service systems to improve the effectiveness of service delivery and enhance efficiency of operations. In addition, they will provide an overview of a unique 'Proof of Concept' model being developed which will demonstrate the value of information sharing to automate a series of processes, which are conducted manually today, and are required for authorizing the use of psychotropic medications for children in foster care. The session is designed to stimulate participants' thinking and begin the process of identifying high-impact technologically enabled initiatives that can be rapidly expanded, transferred and implemented broadly across the State and counties. An overnight assignment using the Psychotropic Medication Proof of Concept will be introduced.

Moderator: Rick Friedman, (Former) Director of State Systems, Center for Medicaid & State Operations

- Will Lightbourne, Director, California Department of Social Services
- Justice Richard Huffman, California Fourth District Court of Appeals
- Richard Gold, Senior Consultant, Stewards of Change

4:15 – 5:00 Interoperability From One County's Perspective: *Live Well San Diego*

In this session, the Director of the County of San Diego County Health and Human Services Agency will present an overview of *Live Well San Diego* – a nationally recognized innovative model for delivering holistic health and human services. Mr. Macchione will discuss San Diego County's overall strategic approach, key objectives and early results. He will also focus on the opportunities, challenges and development plans that are core to successful delivery of effective and efficient services to customers across the county.

Presenter: Nick Macchione, Director, Health and Human Services Agency, County of San Diego

5:30 – 7:00 Reception At Sheridan (Dinner on your own)

Wednesday May 22, 2013

7:30 – 8:30 Coffee and Networking

8:30 – 8:45 Overnight Thoughts and Reflections

8:45 – 9:00 A View From the Bench

The Honorable Vance Raye, Presiding Justice, California Third District Court of Appeal will draw upon his career in the California Judiciary to present his perspective about efforts to create systems that are better connected and share complete and timely information about the population they serve.

9:00 – 9:45 Using the Psychotropic Drug Proof of Concept to Examine Organizational Redundancy

During this session the presenters will review the Proof of Concept in more detail and conduct a discussion about the intended outcomes from exploring this specific use case. Symposium participants will be guided through an exercise to explore and elicit information about other redundant and/or manual processes that could benefit from automation and enhanced information sharing.

Presenters:

- Richard Gold, Senior Consultant, Stewards of Change

9:45 – 10:15 Break

10:15 – 12:00 California's "As Is" Interoperability Landscape Roundtable Discussion

As the basis for developing a roadmap for the future of information sharing and interoperability California's Information Technology leaders will discuss essential elements and attributes of California's "As Is" Health and Human Service Information Technology environment. Through a Roundtable format presenters will discuss legacy and emerging IT systems as well as the constraints and opportunities faced by agencies and programs across the state. Table discussions will be conducted to capture participant feedback on parts of the "As-Is" landscape.

- Moderator: Carlos Ramos, Secretary, California Technology Agency
- Shell Culp, Chief Deputy Director and Agency Information Officer, Office of Systems Integration
- Dr. Linette Scott, Chief Medical Information Officer, California Dept. of Health Care Services
- Chris Cruz, Deputy Director and Chief Information Officer, California Dept. of Health Care Services

12:00 – 1:00 Lunch (provided)

1:00 – 3:00 Interactive: Preparing the Foundation for California's Interoperability Roadmap

This session will provide a structured and highly interactive opportunity for participants to begin outlining the foundational ideas and goals for California's HHS Interoperability Roadmap. To spur fresh thinking, the session will utilize the "Back to the Future" visioning exercise – an engaging way for groups to create a tangible future vision regarding California's HHS programs, services and systems.

Facilitator: Daniel Stein, Managing Partner and Stewards of Change Team

3:00 – 3:30 Break

3:30 – 4:15 Leading Change in Large Organizations: The U.S. Department of Veterans Affairs

Kenneth W. Kizer, MD, MPH is our invited guest speaker. Dr. Kizer has lived through and met the challenges of leading large-scale organizational change and service delivery transformations. He will share from his experiences as Under Secretary for Health, for the U.S. Department of Veterans Affairs (VA), where he served as Under Secretary for Health from 1994 to 1999. As the highest ranking physician in the federal government and chief executive of the nation's largest healthcare system - with a $22B budget, 200,000-plus employees and more than 1100 care delivery sites across the U.S.

He is widely credited with architecting and driving the greatest transformation of VA healthcare since the system was created in 1946. He led the largest electronic health record implementation in U.S. history and pioneered several major IT innovations during his VA tenure.

Presenter: Dr. Kizer, Director of the Institute for Population Health Improvement, UC Davis Health System, and Distinguished Professor, UC Davis School of Medicine (Department of Emergency Medicine) and the Betty Irene Moore School of Nursing

4:15-5:15 Interactive Session: *Are We Ready for Change?*

Every change initiative generates hope and cynicism, excitement and dread, anticipation and fear. For California's

interoperability efforts to succeed, we must plan for and address the inevitable challenges of organizational and personal disruption, uncertainty, and anxiety. We will introduce key concepts of organizational change and facilitate an experience to elicit the concerns, hopes and other issues that are top of mind when planning for and implementing change. Session participants will be exposed to a comprehensive organizational change management process that will support the desired changes and outcomes. We will use this session to create a high-level baseline of the group's readiness for change.

Presenter: Rick Schleusener, Senior Consultant, Stewards of Change

5:15 – 5:30 Overnight Assignment

6:00 Informal Reception

Thursday May 23, 2013

7:30 – 8:30 Coffee and Networking

8:30 – 8:45 Welcome

Secretary Diana Dooley will provide a call to action for Symposium participants and share her vision and goals for transforming California's Health and Human Services Agency.

Introduction: Debbie Rose, Director, California Department of Health and Human Services; Office of Systems Integration

8:45 – 10:00 California's "To Be" Information Sharing and Interoperability Landscape

This session will provide an overview of the State's HHS "To-Be" information technology environment that is in development and also being designed as part of the State's Federal Interoperability Grant. Presentations will include an orientation to new national standards that are being developed to facilitate interoperability among programs. Presentations from some of the state's most forward-thinking interoperability experts will explain these standards including the Medicaid Information Technology Architecture (MITA), the new National Human Services Interoperability Architecture (NHSIA) and the National Information Exchange Model (NIEM). The session will close with a short presentation about "System of Systems Engineering", an approach to solving complex, enterprise-wide technology, management, and policy challenges. Learning from this session is intended to support our upcoming 'To Be' roadmap design session.

Introductory Comments: Pamela Lane, MS, RHIA, CPHIMS, Deputy Secretary, Health Information Exchange, CA Health and Human Services

Moderator: Dr. Linette Scott, Chief Medical Information Officer, California Department of Health Care Services

- Valerie Barnes, Senior Technical Consultant, Stewards of Change
- Adam Dondro, Assistant Director, Horizontal Integration, California Department of Social Services
- Gretchen Hernandez, California Health and Human Services Deputy Agency Information Officer/ Office of Systems Integration Chief Information Officer

10:00 – 10:30 Break

10:30 – 12:00 Getting to Yes!

Presentations and discussions will focus on innovative practices and projects from California that are enabling information sharing, while respecting confidentiality and privacy rights, and securing the information once it is shared. The focus of this session is "getting to yes" rather than discussing the barriers to information sharing. Panelists will share recent efforts, successes, and ongoing projects in the areas of health, public assistance, child welfare and courts. The panel will present promising approaches and technologies that can manage access, ensure security and protect privacy within interoperable environments.

Following the presentations, table discussions will focus on the impact of expanding data sharing including the process for accessing data from another agency/program, determining the current process for obtaining that specific data, and outlining the confidentiality and other policy barriers to sharing the data. These discussions will examine questions about the impact of interoperability initiatives including Health Information Exchange, Electronic Health Records and changes due to the Affordable Care Act.

Moderator: Larry Bolton, Counsel to the Department of Social Services and Office of Systems Integration

- Jerry Scribner, Chief Counsel, CHHSA - TBD
- Kristina Ross, San Bernardino County, Counsel
- Jim Owens, Health and Welfare
- Richard Gold, Senior Project Manager, Stewards of Change

12:00 – 1:00 Lunch

1:00 – 3:00 Interactive Workshop: Designing California's Interoperability Roadmap

In this final workshop, participants will bring together and synthesize the key learning that emerged throughout the Symposium to create a draft Interoperability Roadmap. This Roadmap will be used to inform and complete the State's interoperability planning over the summer and will incorporate the core themes, major findings, key strategies for implementation, primary opportunities and hurdles, and consensus on next steps that emerged from the symposium. We will focus on four important areas including governance, confidentiality, technology and change management.

The Roadmap will also serve as a tool, along with the other artifacts from the symposium, for communicating about the most salient topics over the coming months. Symposium participants can use these materials to disseminate these ideas within their own organizations and also continue collaborating with symposium colleagues and the research and design team in preparation of the Roadmap and the next symposium.

Facilitator: Stewards of Change Consulting Team

3:00 – 3:30 Break

3:30 – 4:30 Going Forward and Next Steps

The closing session will be devoted to identifying specific ways that participants can stay engaged, enhance their knowledge, participate in building the State's Interoperability Roadmap, and help plan the second Interoperability Symposium later this summer. We will review the web based collaboration site and social media groups which can facilitate ongoing dialogue, idea sharing, targeted workgroup activities, and networking among participants.

Facilitators:

- Dr. Linette Scott, Chief Medical Information Officer, California Department of Health Care Services
- Daniel Stein, Managing Partner, Stewards of Change Consulting

E.2 Symposium II

Overview: California Systems Integration and Interoperability Symposium II

On September 23 – 24, 2013, the CHHS Office of Systems Integration convened its second Systems Integration and Interoperability Symposium (*Symposium II*). The event was held at the Judicial Council of California, Administrative Office of the Courts in Sacramento, California. *Symposium II* featured presentations from two national leaders in efforts to promote interoperability and information sharing between state and local government agencies, reports from – and discussions between – the four SSIIP Committees launched at *Symposium I*, and presentations from vendors who are proposing solutions to interoperability challenges in the State of California Psychotropic Medication Approval process. Symposium II ran for two full days and was attended by 120 people.

Symposium II Goals

The agenda developed for the September 2013 *Symposium II* was designed to engage all participants in discussion of California's Systems Integration and Interoperability Project work-to-date, to further state and county participants understanding of major interoperability concepts, and to bring the California Interoperability Roadmap planning processes to a conclusion.

In delivering Symposium II agenda, the SSIIP team worked with the Committee leadership teams to further the work in our four Committees: Legal and Confidentiality Issues, Information Technology, Governance, and Organizational Change Management. The *Symposium II* agenda was developed with the following concepts and outcomes in mind:

- Highlighting interoperability concepts that enable a "client-centric" view of services and systems, enhancing participants' abilities to view client needs holistically, and to serve those needs through integrated programs and systems in their respective organizations.
- Sharing information from other jurisdictions on successes, failures, and key lessons drawn from their efforts to launch interoperability initiatives
- Taking the work developed by the SSIIP Committees over the summer of 2013, and bringing a "synthesis" process to this work, to contribute to the final California Interoperability Roadmap;
- Gathering final input from a large and diverse group of state and county HHS agency leaders for the roadmap for information sharing, interoperability and service improvements among HHS agencies throughout California;
- Accelerating the sharing and adoption of a vision and strategy for improving integration and interoperability across health and human services in California as the SSIIP work moved beyond the ACF Interoperability Grant funding.

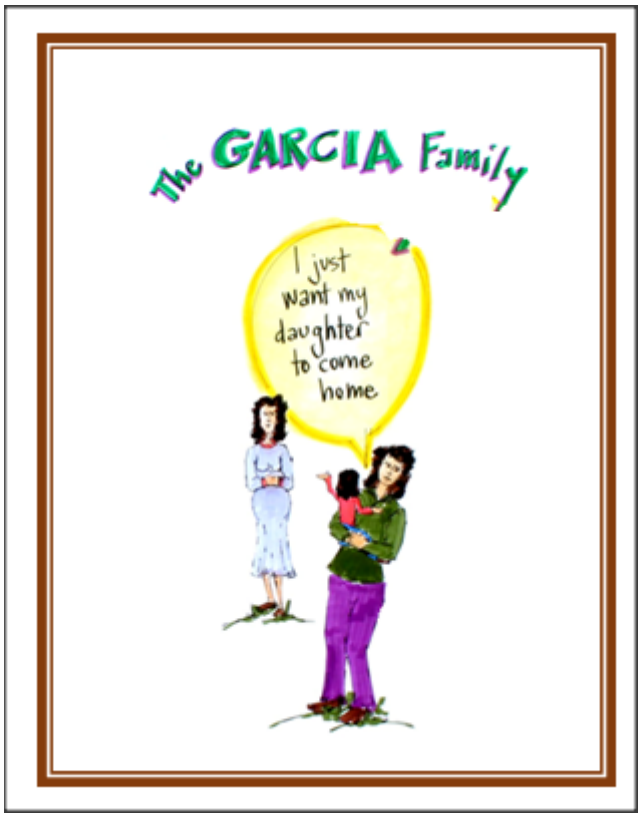
Employment of Model Client Persona in the Symposium II Program

In developing the program structure and session content for *Symposium II*, the project team worked to identify discussion topics and learning frameworks that would focus on a holistic view of California's HHS clients. At the heart of this goal was the recognition that creating customer-centric solutions is paramount to developing a more efficient and effective system of systems. It is well

known that HHS programs operate in silos and often function independently of one another. As a result only a thin slice of the client's overall needs are addressed. Moreover, it is easy to get confused and/or distracted by the complex technical aspects of interoperability. This roadmap outlines an achievable path to interoperability so that California can begin to operate more holistically regarding the people being served by the spectrum of programs being offered.

One important desired outcome driving the *Symposium II* discussions and planning process -- and the overall roadmap effort – is to instill a common understanding across the CHHS workforce that programs are often serving the same clients who have a complex set of needs, strengths, hopes and relationships. Clients don't care about how systems are designed or operate – they just want it to be easy to obtain the services they need, when and where they need them. They don't want to know how a power plant works – they simply want to flip a switch and have the light come on.

Sample persona graphic: The Garcia Family (See narrative on the following page)



To create this holistic, customer-centered culture - and keep it top-of-mind moving forward – it is imperative to focus on the people who are being served. To accomplish this goal for *Symposium II*, the Stewards of Change team introduced an innovative model also used by the software industry, consumer packaged goods, and the financial services industry to build a consumer orientation through an approach using 'Personas'. A Persona represents a group (or subgroup) of clients that have similar service needs, socio-economic and demographic characteristics. For the second Symposium, SOC introduced Personas as a way to both engage participants in client-centered discussions and to illustrate the variety of viewpoints that staff may bring to the conversation based on their job and perspective (e.g. front line case management, supervisor, business, legal, technology or management). Personas help staff empathize a with client's life situation, think across program boundaries, and focus on complementary services that people consume (e.g. medical, mental health, nutrition, recovery, housing, employment and/or education services).

Through the use of an engaging and highly interactive exercise, Personas were used to explore and articulate the complex set of client and organizational needs of various clients. These needs were then represented as factors to consider as part of the initial and ongoing planning process and roadmap. Ultimately, the goal of developing and working with Personas ongoing is to instill a multi-disciplinary perspective to better understand, quantify and communicate the benefits and challenges of integration and interoperability.

The Garcia Family

Ms. Garcia is a 40 year old Latina widow, who lives in a rural part of her county, approximately 50 miles from a metropolitan area. She is on a fixed income with disability due to a car accident. She has temporary custody of her granddaughter, Angelina, age two years, and receives foster care payments for her granddaughter.

Her daughter, Marisol, 20, lives in the city and infrequently contacts her mother or daughter. Ms. Garcia asks her daughter to return to live with her and her granddaughter whenever there is contact. Ms. Garcia has recently been told by her granddaughter's social worker that parental rights termination proceedings will begin on her granddaughter. If Ms. Garcia does not begin proceedings to adopt Angelina, Angelina would be "removed" and placed adoptively with strangers. Ms. Garcia does not want to give up on her daughter by instituting adoption proceedings; she wants to be a grandmother only, not a grandmother/mother. But she has not heard from her daughter in more than seven months. Ms. Garcia knows that Marisol is at risk.

Coincidentally, her daughter calls within days of the call with the social worker to announce that she is pregnant again. Marisol reports that she has had no prenatal care to date. Her mother reminds her that Angelina was born premature. She begs Marisol to come home. Marisol is reticent to come home and when questioned further, she tells Ms. Garcia that she is no longer living with the father of her baby. She does agree to provide her mother with her cell phone number and to contact her social worker. She agrees to call back the next day.

"I just want my daughter to come home...I know that she has problems but being pregnant again means that she might be more willing to finally do something. Angelina is such an adorable and sweet girl. I know that Marisol would see this...there is always hope."

Symposium II Planning Process

The Symposium II planning team, comprised of OSI and contractor team personnel, participated in the process to plan and deliver the California Systems Integration and Interoperability Symposia. During the planning process for *Symposium II*, the team held weekly meetings and planning calls, both in-person in Sacramento and via weekly conference calls, during the months of June - September 2013.

Key elements of the Symposium II planning process included:

- Development of *Symposium II* goals.
- Invitation development, communication, and management
- Invitee list development and registration management
- Symposium agenda development and publication
    - Symposium speaker invitation and presentation planning
    - Persona development and integration with program
- Symposium meeting material development and publication
- Venue and meeting support logistics planning and execution
    - Meeting site, hotel room block, meeting catering, and audio visual services
- Symposium media/visual services acquisition and delivery
    - Video services and graphic art services
- Symposium execution
- Symposium artifact accumulation and posting to internet-based Collaboration space
- Event debriefing meetings.

Presenters and Participants:

Symposium I invitations were extended to approximately 200 representatives of California state and county HHS organizations, California state and county courts, federal HHS representatives and agency leaders, leaders of ACF Interoperability Grant projects in other states, legal and information systems experts, and advocacy groups and foundations.

As was the case with *Symposium I*, the *Symposium II* sessions and workshops were organized in a way that ensured that a widely representative group would be in attendance. While Symposium I provided more content focused on building awareness and understanding of interoperability knowledge, Symposium II panel presentations and discussions were led by SSIIP project leaders and SSIIP's Committee leadership. Also, vendor representatives were invited to present to the participants on their proposed approaches and technology solution options that might be employed in the State's Psychotropic Medication Approval process.

Key Symposium II Facts

The *California Systems Integration and Interoperability Symposium II* was held on September 23 – 24 at the Administrative of the Courts, Sacramento. A hotel room block was secured at the Hilton Garden Inn, Sacramento/South Natomas.

139 people participated in Symposium II and a full list participating organizations and jurisdictions is presented below.

Alameda County Social Service	Center for Social Services Research	National Center for Youth Law
Alexan International	Child Welfare Directors Association	NYC HHSConnect
AOC	Children and Family Futures	Office of Statewide Health Planning and Development
Assembly Human Services Committee	Contra Costa County	Office of Systems Integration
California Department of Child Support Services	County of Lassen Children and Family Services	Placer County Systems of Care
California Department of Community Services & Development	County of Los Angels	Public Policy Institute of California
California Department of Health Care Services	County of Madera	Riverside County Department of Public Social Services
California Department of Managed Health Care	County of Napa	San Bernardino County Counsel
California Department of Public Health	County of Riverside DPSS	Santa Clara County Social Services Agency
California Department of Rehabilitation	County of Sacramento	Senate Governance and Finance Committee
California Department of Social Services	County of San Diego	State of California Department of Finance
California Department of Technology	County of San Diego Health and Human Services Agency	State of California Legislative Analyst's Office
California Employment Development Department	County of Ventura Behavioral Health	State of Illinois
California Health and Human Services Agency	County of Ventura Children & Family Services	Stewards of Change Consulting
California HealthCare Foundatio	County of Ventura Human Services Agency	The Children's Partnership
California Managed Risk Medical Insurance Board	Los Angeles County Counsel	Wormeli Consulting
California Mental Health Services Oversight & Accountability Commission	Monterey County Behavioral Health	Yolo County Dept. of Employment & Social Services
California Office of Statewide Health Planning and Development	Monterey County Department of Social and Employment Services	Youth Law Center
California State Assembly	Monterey County Probation Department	
Center for Families, Children & the Courts	Napa County Health and Human Services Agency	

Major Symposium II Artifacts

The materials and resources generated during *Symposium II* have been stored in a publicly-accessible web Collaboration space, managed using Microsoft SharePoint. Each of the sessions was videotaped and graphically illustrated to provide a full recap of the proceedings. These materials will be made available to California HHS organizations and with other jurisdictions around the United States as they continue their systems and services integration and interoperability projects.

To access the materials generated at our California Interoperability Symposia, please visit: CHHS Interoperability Symposium 2013. On this site, readers can locate materials generated and shared prior to, during, and following *Symposium II* including the event agenda, presentation slide decks, session videos, State and County Interoperability planning materials, and our graphic art landscapes. *Symposium II* session videos are posted to the Stewards of Change channel at youtube.com:

http://www.youtube.com/playlist?list=PLeI2juMpKM4OjEz63ds93ngyaMz77HiL1

The OSI team has posted materials relating to the Request of Demonstration for an HHS Interoperability Proof of Concept demonstration that was issued immediately following *Symposium II*. Those materials can be accessed at (add link):

Materials developed by the SSIIP Committees between Symposium I and II are also posted to the SharePoint site and are available here: (add link)

Symposium II - Closing Summary

The Symposium II process and approach was designed bring the initial planning phase of California's overall journey toward to a conclusion. The Symposium II methodology provided another valuable opportunity for in-depth discussions on all aspects of CHHSA programs and systems with domain experts from around the state and beyond California. By bringing together such a group, and focusing them reviewing, identifying, synthesizing and integrating participant recommendations and refinements, we sought to maximize the opportunity to provide contributions and feedback into the emerging Roadmap.

The ideas and recommendations accumulated during the two-day symposium will be integrated into the graphically illustrated California Interoperability Roadmap to be used to convey the core initiatives, recommendations and activities that will be implemented over the next six months, two years and beyond.

In its debriefing meetings, and over the months following the event, the project team identified the following accomplishments enabled by *Symposium II* that are expected to influence the overall success of the California Interoperability Roadmap (CIR).

- The high levels of interest and engagement in the four SSIIP Committees, with leaders and participants who volunteered to participate in the development of important new integration and interoperability papers and tools, as well as continuing to provide input and refinements to the CIR. These Committees have been instrumental in driving subsequent work over the three months between Symposium I and II.
- Discussions focused on composite client persona assisted in efforts to focus participants' thinking on meeting a spectrum of clients needs through integrated systems and services – and helped identify paths to increased program/service integration and interoperability.

- The Symposium II agenda featured discussions that were relevant to the State's "real world" operational systems and projects. By focusing a portion of the agenda on a current case example – and by engaging with people who are running the state's major human services programs – the event provided a fulcrum for new thinking about integrated services and information, creating pathways toward a new "To-Be" state, and creating engagement and enthusiasm about moving forward on the interoperability journey.

Symposium II – Program

California Systems Integration and Interoperability Symposium II – Final Program

September 23-24, 2013 – Sacramento, CA

Monday, September 23, 2013
8:00 – 9:00 Coffee on-site
9:00 – 9:15 Welcome
9:15 – 10:45 Getting Started: Introducing a Client-centric and Holistic Perspective of the Interoperability Roadmap Facilitators: Stewards of Change Consulting, Alexan International and SSIIP Project Staff The initial interactive session will orient participants to thinking holistically about clients and the systems that serve them. Using a scenario-based methodology, participants will work with colleagues to explore the complex set of needs, challenges and requirements that individuals and families face when dealing with multiple programs that touch California's departmental silos e.g. medical health, behavioral health, TANF, SNAP, social services, education, courts, employment, etc. By expanding their viewpoint, participants will gain a common client-centric model, a systems perspective, and be better prepared to engage in the upcoming discussions focused
10:45 – 11:15 Break
11:15 – 12:00 Overview of the CHHS Interoperability Roadmap PRESENTERS: • Daniel Stein, Managing Partner, Stewards of Change Consulting • Shell Culp, Chief Deputy Director and Agency Information Officer, CHHS Office of Systems Integration This session will provide an overview of the concepts, methods, and models that were used to guide the SSIIP project. The draft CHHS Interoperability Roadmap will be presented so participants can begin the process of reviewing and refining the short, medium and long-term activities that will guide implementation planning. The Interoperability Roadmap overview will offer participants a context for assimilating the information presented during the four committee presentations. It will also be applicable to the interactive sessions which will focus on identifying any gaps and integrating new recommendations into the final Roadmap. We will also introduce the Proof of Concept results addressing Psychotropic Medication Authorization (PMA) Process for Foster Care Youth through an engaging skit format.

12:00 – 12:45 Lunch

12:45 – 2:30 Governance Committee Report and Discussion

PRESENTERS:

- Gretchen Hernandez, Chief Information Officer, Office of Systems Integration and Deputy Agency Information Officer, CHHS
- Carrie Hoff, Assistant Deputy Director, Knowledge Integration Program, Health and Human Services Agency, County of San Diego
- Mark Owens, Staff Counsel, CHHS Office of Systems Integration

The Governance Committee will present key concepts, core deliverables and actionable recommendations produced over the summer by the Committee. Topics will include the approved Governance Model, the Governance process flow, and a descriptive narrative about the relevance of governance to decision making and issue resolution. After the Committee briefing, a vendor representative will present one Proof of Concept result addressing Psychotropic Medication Authorization (PMA) Process for Foster Care Youth. The presentation will include a brief discussion about their solution as it relates to governance. Additionally, the SSIIP presenters will walk through the governance process using PMA as a practical example.

Following the vendor presentation, participants will engage in discussions about how they view the new governance process and potential ways that it could improve their daily operations and impact the implementation of the Interoperability Roadmap.

2:30 – 3:00 Break

3:00 – 3:30 Interoperability Success Stories: How Department of Justice Uses National Information Exchange Standards For Success

- *Paul Wormeli, Executive Director Emeritus, IJIS Institute*

This session will provide an opportunity to learn about the application of the National Information Exchange Model (NIEM) and how these standards are being used throughout the United States and Internationally to improve communications, data exchange and overall interoperability. NIEM for Human Services is a newly formed domain and will be a core component of the Interoperability Roadmap for the State of California. This session will present case studies that demonstrate the impact and practical applicability for the state, counties and all other providers.

3:30 – 5:15 Organizational Change Management Committee Report and Discussion

PRESENTER:

- Rick Schleusener, Senior Consultant, Stewards of Change Consulting

The Organizational Change Management Committee will present the results of their research and recommendations. The recommendations include methods for stakeholder analysis and engagement, a performance scorecard, and strategies for communication and risk mitigation. Following the May Symposium, the Committee's membership conducted a preliminary survey to gather some initial data to provide an initial baseline readiness assessment for organizational and business change.

A second vendor will present their solution for addressing Psychotropic Medication Authorization (PMA) Process for Foster Care Youth. The presenters will discuss some of the possible impacts and implications for the Organizational Change plan.

This session will close with a guided facilitation to discuss ideas for improving and implementing the Interoperability Roadmap.

Tuesday, September 24, 2013

7:30 – 8:30 Coffee on-site

8:30 – 9:15 New York City HHS Connect Presentation

PRESENTER:

- Ivy Pool, Deputy Director, HHS-Connect, Office of the Deputy Mayor for Health and Human Services
- Emily Sweet, HHS-Connect Counsel, Office of the Deputy Mayor for Health and Human Services

This session will present New York City's ten year journey creating interoperability across many of their health and human service programs. The success that NYC has achieved provides many lessons learned for California and elsewhere and is cited as a leading example of interoperability within Health and Human Services.

9:15 – 10:30 Legal and Confidentiality Committee Report and Discussion

PRESENTERS:

- Larry Bolton, Special Counsel, CHHS Office of Systems Integration
- Richard Gold, Senior Consultant, Stewards of Change Consulting

The Legal and Confidentiality Committee will provide a report on their work to identify and craft solutions to the legal challenges facing information sharing and interoperability in California HHS. Over the summer, the Committee worked to draft three important products: a Privacy and Confidentiality Framework for data sharing between agencies, a template for a Memorandum of Understanding, and a model data sharing agreement. Symposium participants will engage Legal and Confidentiality Committee members to discuss their reaction and questions regarding the Committee's deliverables and recommendations. A vendor representative will deliver the third and final Proof of Concept (POC) result for Psychotropic Medication Authorization (PMA) Process for Foster Care Youth. The presenter will address legal and confidentiality issues pertaining to the POC, providing participants with a real-world perspective in which to examine specific areas of legal and client confidentiality embedded in the Interoperability Roadmap.

10:30- 11:00 Break

11:00 – 12:30 Information Technology Committee Report and Discussion

PRESENTERS:

- Dr. Linette Scott, Chief Medical Information Officer, California Dept. of Health Care Services
- *Valerie Barnes, Senior Consultant, Stewards of Change Consulting*

The Information Technology Committee will report their key findings and recommendations concerning the technical framework necessary for initiating projects. This report will include overall objectives and will focus on the outcomes, recommendations, and next steps produced by the Committee. Presenters will brief participants on core interoperability concepts, relevant national standards, and California's To-Be HHS technology environment. The presenters will share the Committee's short-term and longer-term recommendations and propose a roadmap and time frame to achieve those objectives.

To conclude the session, presenters and participants will delve into the applicability and impact of the Committee's recommendations on proposed and ongoing California HHS programs and IT initiatives. This exercise will encompass the Interoperability solutions now being developed for the Proof of Concept.

12:30 – 1:30 p.m. Lunch & Speaker

• Diana Dooley, Secretary, California Health and Human Services Agency
1:30 – 3:00 p.m. **Interoperability Roadmap Review, Refinement and Consolidation** *Facilitators: Stewards of Change Consulting, Alexan International and SSIIP Project Staff* This session and the following one will focus on reviewing, identifying, synthesizing and integrating participant's recommendations and refinements into the Interoperability Roadmap. Through interactive exercises and facilitated discussions the group will identify core ideas that should be added, deleted and/or refined to enhance the final Interoperability Roadmap. The ideas and recommendations accumulated during the two day symposium will be integrated into the graphically illustrated roadmap to be used to convey 'at a glance' the core initiatives, recommendations and activities that will be implemented over the next six months, two years and beyond. The finalized Roadmap will be incorporated into the overall report and used to communicate CHHS's strategic interoperability direction over time.
3:00 – 3:15 p.m. Break
3:15 – 4:30 Interoperability Roadmap Review, Refinement and Consolidation - Continued
4:30 – 5:00 Next Steps & Closing

Symposium II – Outcomes

During the final session of *Symposium II,* "Interoperability Roadmap Review, Refinement and Consolidation," groups participated in conversations designed to elicit recommendations to support increased Interoperability and Information Sharing in California HHS over 6 month, 2 year and 10 year timeframes. While not every concept or idea generated and recorded was selected for inclusion in the Roadmap, we have preserved them here for future reference and consideration. The recommendations are classified by the four SSIIP Committees.

Breakout Group 1. Related to Governance

1. Need to formalize the governance model
   - Gaining buy-in at executive level at the beginning of projects.
2. Must have vigorous horizontal communication among governance committees and sub-groups.
3. Work to operationalize the governance model at a State, agency, and local level
   - Enhance State/County/Providers communication and education to share common understanding of what is expected
   - Leadership at all levels must be found
   - Governance must not be a foreign concept to anyone, regardless of diversity of stakeholders
   - State needs to provide technical assistance and training
   - It should be customizable --- be able to modify the process to meet your own organization's infrastructure, processes, and practices.

- People will feel relief knowing the process – communicate!
- Need to publicize the governance model/process
- Helps counties to focus on interoperability
- Allow input into governance process on an ongoing basis
- Working and business rules change over time
- Need to implement "Professional" interoperability at the agency level.

4. Funding remains a challenge
5. Client-centric approach needs to remain in the forefront
   - Use the Stewards of Change "personas" methodology as a means of reaching resolutions.
6. Building on lessons learned from previous large systems acquisitions
   - Creating and maintain a knowledge repository of success stories, state/county partnerships, and the documentation of engagement stories
   - For new projects, reusing and leveraging existing components and/or processes
   - Not "reinventing the wheel"
   - Proactive sharing of information
   - Providers will be key to data provision.
7. Set standardized approach so people know what to expect.
8. Need to change the culture around service delivery.
9. Must keep strategy separate from tactics.

Breakout Group 2. Related to Information Technology

Recommendations related to Information Technology emerged primarily from two sessions: the discussion following the IT Committee Report and the final "Interoperability Roadmap Review, Refinement and Consolidation" session. Suggestions included:

- Develop a workforce with the necessary skills, including informatics.
- Include county staff in education and outreach.
- Prepare a roadmap for the applications and share with state and counties so everyone knows what is coming, what is expiring.
- Adopt security standards and protocols.
- Mobility is how we do business. Make sure solutions and policies support it.
- When merging enterprise architectures, consider where we want to go, what data resides in the system, and how we want to streamline it.
- Take a different approach to contracting to require/allow interoperability, reuse, and a shared responsibility with vendors for keeping up with changes in technology.
- Work with Federal agencies to support interoperability in cost allocation and other aspects of using federal funds.
- Leverage and support the "Let's Get Healthy California" initiative.
- Implement sustainable enterprise architecture practices including training, knowledge transfer, and skill set development.

- Identify constraints (e.g., governance, policy, funding, schedule, and labor) and a framework to operate within them.
- Implement governance around how data are used/freed. Include quality and ownership responsibilities.
- Find ways to link and provide access to the data for qualified researchers.
- Define the As-Is state (e.g., what are the county agencies using?); map the connections among existing components.
- Establish a common vision, strategy, and plan for interoperability across the Federal, State, and County levels.

Breakout Group 3. Related to Legal and Confidentiality

At the final session, "Interoperability Roadmap Review, Refinement and Consolidation", two groups of participants discussed and raised the following points regarding Legal and Confidentiality:

1. Change the culture from "NO" to "YES"
    - Build and exert strong leadership.
    - How to move forward without legislative action/authority.
    - Who is the "let" in "Let's do this!!"? Ownership must be assigned/taken.
    - Engage advocates of populations served.
    - Reduce stigmas that drive some of the confidentiality rules.
    - Educate stakeholders on benefits of interoperability.
    - Create incentives for interoperability.
    - Need for a shared clear vision, with identified roles and responsibilities
    - Judicial engagement is critical.

2. Create a Legal and Confidentiality Information Central Repository
    - Develop a resource repository or "Wizard."
    - Access by all stakeholders to review Memoranda of Understanding, sample data sharing agreements and data use agreements, legal opinions, state policy interpretation, confidentiality/privacy provisions.
    - List HHS statutory requirements for confidentiality with accurate interpretations of their application.
    - Capture and leverage county experiences/best practices.
    - Develop sample memoranda of understanding/interagency agreements.
    - State policy interpretations.
    - Standardized consents and authorization forms.
    - Other pertinent information that might help to address, or prevent conflicting confidentiality positions.

3. Need for consistent and clear interpretation of confidentiality: Uniformity of legal interpretation driven by state for use by state HHS and counties
    - One interpretation statewide as opposed to 58 different interpretations

- Need for all stakeholders (not only attorneys) to have consistent and uniform interpretation of law across agencies and programs, particularly those that address common client privacy requirements.
- Professionals serving common clients need to be assured that their understandings and interpretations of confidentiality rules conform to standards and intent of the law.
- Differing interpretations of federal and state confidentiality requirements inhibit efficient service delivery by county and state health and human service agencies, particularly where information sharing is not the practice.

4. Create an HHS Office of Interoperability
    - Provide education and training.
    - Gather stakeholder feedback.
    - Make recommendations.
    - Strive for consensus regarding interpretation and application of laws about protection of information.
    - Be a liaison regarding federal law.

5. Identify examples of where state law is more restrictive than federal law and suggest legislative changes.

6. Data controls
    - There needs to be a unique client identification process
    - Data user audit capacity
    - Encrypted data to enhance privacy/security.

Breakout Group 4. Related to Organizational Change and Workforce Development

In response to anticipated changes that interoperability will present, Symposium II participants identified challenges related to supporting the workforce as they change how they do business today, and in tracking progress with specific metrics. Participant concerns focused on:

1. Casting a wider net for stakeholders
    - When gathering information on concerns of stakeholders, the stakeholders considered should include more than HHS and county personnel. The concerns of clients, Federal organizations and communities should also be considered.
2. Vision
    - A clear vision should be articulated from a high level HHS source at the outset of this work.

3. Creating an HHS Interoperability Office
    - The group saw value in creating an office with resources to help engage HHS personnel in doing the work of adopting interoperability.

4. Communicate the Value of Interoperability

- The OCM Committee encouraged developing a communications framework as part of the OCM roadmap. Symposium II participants underscored the need to communicate the benefits the different publics should expect to experience.

5. Identify what "Good" Looks Like, develop metrics to monitor interoperability progress
    - The group noted the need for metrics to provide insight into accountability - progress toward interoperability, and whether the changes taking place have made organizations work better, i.e., whether interoperability was happening. The group encouraged leveraging existing scorecards such as the Let's Get Healthy California's 39 metrics as a way to monitor progress.

OCM/Workforce Development Issues:

In response to the changing data sharing environment, Symposium II participants identified potential challenges related to ensuring workforce is engaged in change processes, informed about interoperability and integration, and prepared to use new approaches to data sharing. Participant concerns focused on:

III. Current workforce
- Interoperable and integrated business processes and systems requires a different skill set than many workers have today. Departments/agencies must either develop appropriate skills among current workers or hire new staff with those skills.
- A number of employees are near or reaching retirement at State and local levels and some are moving to other positions as openings occur.
- The resulting transition within organizations highlights resistance to change
- Coupled with looming adjustments to job descriptions poses human resource and potential labor challenges.

IV. New employees
- A transfer of historical knowledge is key to effective transitions.
- new employees may be comfortable with electronic/new business processes but they may lack organizational historical context,
- It is difficult to build on established relationships and capitalize on previous lessons learned.

V. To bring the full workforce up to speed, participants emphasized need for a strong communication strategy that engages, informs, and educates on interoperability and integration.

VI. Identifying and communicating about new roles is also essential. Participants confirmed that implementation of strategies outlined in the Organizational Change Management roadmap is important in order to keep workforce apprised of what is changing and provide support during the transition to electronic data sharing.

APPENDIX F Legal Interoperability Survey

Interoperability Survey

The State System Integration and Interoperability Project, funded by a federal grant, has created a Legal (Confidentiality and Privacy) Committee, responsible for creating a Legal Framework to address and help overcome barriers to sharing or exchanging necessary and relevant data/information in the administration of public programs under the purview of the Health and Human Services Agency. The Committee is requesting that all chief counsels identify specific areas in which there have been denials of, or barriers to, sharing or exchanging data/information, aka interoperability.

Please complete the following survey to identify each circumstance in which your department's program(s) has/have encountered a denial of, or barrier to, sharing or exchanging of data/information. If there are multiple answers for each question that involve different issues or programs, please list them numerically under each question and follow the same numeric listing in each response thereafter to properly track the responses. Please include your responses on this Word document, then 'Save As', keeping the current title 'SSIIP2013 07 22 Interoperability Survey' and adding your last name. Please send the completed survey to Larry.Bolton@dss.ca.gov and gsfreitas@sbcglobal.net **by August 21, 2013**.

Thank you for your time and contribution to this important effort.

A. Person Completing the Survey:

   Email:

   Telephone #:

B. Identify and briefly describe the program, service or function impacted by the denial of or barrier to the sharing or exchange of data/information:

C. Identify the other entities (public/private) involved in the circumstances identified in Question B:

D. Briefly describe how the above-noted programs, services or functions were impacted:

E. Identify the basis for the denial of or barrier to the sharing or exchange of data/information. Please check all that may be applicable:

____ Statute (Please cite)

____ Regulation (Please cite)

____ Administrative Letter (Please provide #)

____ Policy (MPP cite)

____ Contract Term(s)

____ Case law (please provide citation)

____ Other

F. Did the denial of or barrier to the exchange or sharing of data/information include "differing interpretations" of law or policy by the interested parties? If so, please provide a brief explanation of the different interpretations:

G. Please describe other options considered to overcome the denial of or barrier to the exchange or sharing of data/information and why the specified option was or was not implemented, including I/A or MOU to remedy data/information sharing:

H. Please provide recommended changes (policy change, modification of regulation(s), statutory change, agreements, etc.) needed to overcome identified denials of or barriers to the sharing or exchange of data/information described above:

APPENDIX G POC Request for Demonstration - embedded object

California Health and Human Services Agency
Office of Systems Integration
2535 Capitol Oaks Drive, Suite 120
Sacramento, CA 95833

EDMUND G. BROWN JR.
Governor

REQUEST FOR DEMONSTRATION (RFD) #15531

State Systems Interoperability and Implementation Plan (SSIIP) Project

ADDENDUM 02

The Office of Systems Integration (OSI) would like to invite your firm to participate in this RFD for the purpose of the development of a customized "Proof of Concept" Demonstration that illustrates the potential ways California Health and Human Services Agency (CHHSA) data can be shared among multiple systems for the benefit of the user community.

It is the intent of Office of Systems Integration (OSI) to select one or more Demonstrators to develop the custom "Proof of Concept" Demonstration. This Proof of Concept" Demonstration must be provided at no cost to the State and must adhere to the requirements as outlined in this RFD.

If a Demonstrator discovers any ambiguity, conflict, discrepancy, omission or other error in this RFD, the Demonstrator should notify the State in writing of such error and request clarification or modification of the RFD. Demonstrators requiring clarification of the intent and content of this RFD may request clarification by submitting questions electronically to the Contact Person listed in the Key Action Dates. To ensure a response, questions must be received by the date and time specified in the Key Action Dates.

The State may modify any part of the RFD, prior to the deadline to submit a response to the RFD, by issuance of one (1) or more addenda. Addenda will be numbered consecutively and sent to all firms who have responded to this RFD.

The State may request clarifications from Demonstrators at any phase of the review process for the purpose of clarifying ambiguities in the information presented in the response to RFD. The State will advise the Demonstrators in writing of the documentation required and the time line for response.

All Demonstrators are advised of the key action dates and times and must adhere to them. The estimated dates may be adjusted by the State as conditions indicate.

KEY ACTION DATES	
Release of RFD	May 10, 2013
Deadline to Submit Questions	May 17, 2013 by 10:00 a.m.
Release of RFD Addendum 01	May 21, 2013
Release of Response to Questions 01	May 21, 2013
Release of Response to Questions 02	May 29, 2013
Release of RFD Addendum 02/Responses to Questions 03	June 4, 2013
Notice of Intent to Submit Response to RFD* ***Submit Notice of Intent via email to RFD contact***	June 14, 2013
Deadline to Submit Response to RFD** ****All dates after the Deadline to Submit Response to RFD are tentative and subject to change.****	June 28, 2013 by 10:00 a.m. **Submit Response to:** **RFD CONTACT** Tanya LoForte Office of Systems Integration 2535 Capitol Oaks Drive, Suite 120 Sacramento, CA 95833 Phone: (916) 263-4267, Fax: (916) 263-0727 E-mail address: Tanya.Loforte@osi.ca.gov
One-Hour Presentation (by invitation only)	July 16-17, 2013
Acceptance of One-Hour Presentation	July 18, 2013
Demonstration Rehearsal	August 27, 2013
Final Demonstration at Symposium	September 18, 2013

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[21] The RFD with all its addendums is available from the OPSI Acquisitions and Contracts Division website.

APPENDIX H MOU/IA Example

MEMORANDUM OF UNDERSTANDING
BETWEEN
STATE OF CALIFORNIA AGENCY # 1
AND
STATE OF CALIFORNIA AGENCY # 2

I. PURPOSE

This Memorandum of Understanding (MOU) is entered into by State of California Agency #1 (Agency #1) and State of California Agency #2 (Agency #2), to allow for the sharing of confidential data between agencies. The sharing of this data is necessary to provide the services and resources required to meet the complex needs of children, families, and caregivers, to achieve continuous improvement across programs, and to make informed public policy decisions. This MOU provides authorization for the use of this confidential data only as detailed below in the Scope of Work section.

(A detailed description of the particular data sharing project should explain the specific need(s) for the data exchange, the objectives to be achieved, and the benefits that both agencies will receive from this collaboration, including how the disclosure of the information promotes the welfare of children and families. If Welfare and Institutions Code §10850 applies, the description must state how the disclosure of the confidential information is connected with the administration of public social services.)

II. SCOPE OF WORK

Describe the areas to be studied and how the data acquired will assist in the examination and analysis of the issues involved. The product or deliverables should be described. A summary timeline for all tasks and deliverables can be included.

The scope should indicate what will happen, when it will happen and what will be delivered.

Both Agencies should describe the specific data that will be exchanged, how often the exchanges will be conducted, and the method of conveyance. A data dictionary should be provided if necessary. The set of security and confidentiality requirements for both Agencies will be referenced in this section. Both sets of security requirements will be attached to the MOU. Regulations specific to an Agency should be described. Each Agency may request additional information from the datasets, as needed, for special study purposes.

Agency # 1 shall provide the following data solely for the purposes specified above

_____. The data provided include: an electronic dataset from the Agency # 1 databases.

Agency # 2 shall provide the following data solely for the purposes specified above

_____. The data provided includes: an electronic dataset from the Agency # 1 databases.

III. AGENCY # 1 RESPONSIBILITIES

A. Agency # 1 will use the Agency # 2 confidential data for the requested years, as provided under the terms of this MOU only for the purposes specified above. The data are not to be used for personal gain or profit. Agency # 1 agrees to comply with the provisions of the Agency # 2 Confidentiality and Security Requirements, Attachment_____of this MOU.

B. Any publications resulting from, or related to the use of this data, must appropriately acknowledge Agency # 2 as the original source of the data.

C. Agency # 1 will include a disclaimer that credits the respective agency authors for any analysis, interpretations, or conclusions reached. This will only be included if the MOU is with a university or non-profit. A suggested wording is:

"The findings reported herein were performed with the permission of Agency # 2. The opinions and conclusions expressed herein are solely those of the authors and should not be considered as representing the policy of the collaborating agency or any agency of the California government."

D. Agency # 1 will assure that technical descriptions of the data are consistent with those provided by Agency # 2.

E. Agency # 1 will provide Agency # 2 with a pre-publication draft of any reports no later than 30 calendar days before publication. Agency # 2 shall respond within 14 working days to the pre-publication draft thereby allowing both departments the opportunity for resolution of any possible issues. Should Agency # 2 disagree with any part of the report, a disclaimer stating Agency # 2's disagreement must be included in the final published report, preferably located in the Executive Summary.

F. Agency # 1 will not, under any circumstances, identify any person, household, or family, nor contact any individuals from any of the data files for any purpose other than those enumerated and described in the Purpose and Scope of Work of this MOU.

I. Agency # 1 will designate a contact person to be responsible for oversight and supervision of the security and confidentiality of the data, and to act in a liaison capacity throughout the term of this MOU. Agency # 1 will immediately notify Agency # 2 in writing of a contact person change. The contact person shall be:

_____.

J. On an as needed basis, Agency # 1 will exchange a list of identifying information and relevant data fields to facilitate linking between the Agency # 2 sections and the Agency # 1 sections that are involved in the use and transmission of the data.

IV. AGENCY # 2 RESPONSIBILITIES

A. Agency # 2 will use the Agency # 1 confidential data for the requested years, provided under the terms of this MOU only for the purposes specified above. These data are not to be used for personal gain or profit. Further, Agency # 2 staff agrees to comply with the provisions of the Agency # 1 Confidentiality and Security Requirements, Attachment_____ of this MOU.

B. Any publications resulting from or related to the use of this data must appropriately acknowledge Agency # 1 as the original source of the data.

C. Agency # 2 will include a disclaimer that credits the respective agency authors for any analysis, interpretations, or conclusions reached. This will only be included if the MOU is with a university or non-profit. A suggested wording is:

"The findings reported herein were performed with the permission of the Agency # 1. The opinions and conclusions expressed herein are solely those of the authors and should not be considered as representing the policy of the collaborating agency or any agency of the California government."

D. Agency # 2 will assure that technical descriptions of the data are consistent with those provided by Agency # 1.

E. Agency # 2 will provide Agency # 1 with a pre-publication draft of any reports no later than 30 calendar days before publication. Agency # 1 shall respond within 14 working days to the pre-publication draft thereby allowing both Agencies the opportunity for resolution of any possible issues. Should Agency # 1 disagree with any part of the report, a disclaimer stating Agency # 1's disagreement must be included in the final published report, preferably located in the Executive Summary.

F. Agency # 2 will not, under any circumstances, identify any person, household, or family, nor contact any individuals from any of the data files for any purpose other than those enumerated and described in the Purpose and Scope of Work of this MOU.

G. Agency # 2 will designate a contact person to be responsible for oversight and supervision of the security and confidentiality of the data, and to act in a liaison capacity throughout the term of this MOU. Agency # 1 will immediately notify Agency # 2 in writing of a contact person change. The contact person shall be:

_____.

H. On an as needed basis, Agency # 2 will exchange a list of identifying information and relevant data fields to facilitate linking between the Agency # 2 sections and the Agency # 1 sections that are involved in the use and transmission of the data.

V. TERM

The term of this MOU is:_____.

VI. GENERAL PROVISIONS

A. This MOU may be amended at any time by written mutual consent of all parties.

B. Termination without cause: This MOU may be terminated by either party without cause upon 30 days written notice.

C. Termination with cause: This MOU may be terminated immediately by either party if the terms of this MOU are violated in any manner.

D. Dispute Resolution Process: If a dispute arises between Party 1 and Party 2, Party 1 must seek resolution using the process outline below.

E. Party 1 should first informally discuss the problem with the Party 2 program contract manager. If the problem cannot be resolved informally, Party 1 must direct the grievance, in writing, to the Party 2 program Branch Chief. The Branch Chief must make a decision within ten (10) working days after receipt of the written grievance from Party 1. Should Party 1 disagree with the Branch Chief, Party 1 may appeal to the appropriate Party 2 Deputy Director.

F. This MOU is not effective until signed by both parties.

VII. FISCAL PROVISIONS (if applicable)

CALIFORNIA AGENCY # 2

By: _____
Name and Title of signing staff

Date: _____

CALIFORNIA AGENCY # 1

By: _____
Name and Title of signing staff

Date: _____