



White Paper

Governance Models for Health Information Exchange

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Executive Summary

For several decades, stakeholders have united in efforts to improve healthcare efficiency, cost, and quality through improved exchange of health information. The landscape for health information exchange has undergone significant change in the past two years. New programs and funding are available from the federal government, while public and private sector stakeholders are making investments in health information exchange at the local and state levels. As parties engage and seek benefit from health information exchange, the importance of principles and policies for governance increases.

As a first step in considering the various approaches to governance of health information exchanges, this paper ascribes taxonomy to the different governance models that are emerging at the level of state health information exchange. The features of the emerging governance models are described, as well as the benefits and challenges associated with each. The paper also offers examples of states that utilized the described governance models. Finally, the paper looks ahead to issues raised by increased variation in governance models among the state health information exchanges and heightened demands on health information exchanges as they support increasing exchange requirements over time.

The American Recovery and Reinvestment Act (ARRA), specifically the Health Information Technology for Economic and Clinical Health (HITECH) provisions, developed a program to create and accelerate health information exchange capacity within and across the states. In March 2010, the Office of the National Coordinator for Health Information Technology (ONC) announced the State Health Information Exchange Cooperative Agreement Program awardees. The 56 State Designated Entities (SDE) are tasked with ensuring that the health information exchange offers every eligible healthcare provider at least one option for health information exchange that meets the requirements of the Medicare and Medicaid EHR Meaningful Use Incentive Program. The July 2010 Program Information Notice (PIN) to the SDEs underscored the role of the SDEs relative to supporting meaningful use and outlined expected coordination among the SDEs, the State HIT coordinators, and the Medicaid programs.

Over the four-year period of the Cooperative Agreement Program, SDEs are expected to build plans that increase connectivity and enable patient-centric information flow to improve the quality and efficiency of care within the context of five domains: governance, sustainability, technical infrastructure, business and technical operations, and legal and regulatory issues. Following the awards to the SDEs, states have vigorously worked to develop strategic and operational plans that will facilitate statewide health information exchange. Central to the successful execution of these plans is the determination of the respective roles and responsibilities for the public and private sector stakeholders driving health information exchange within the state.

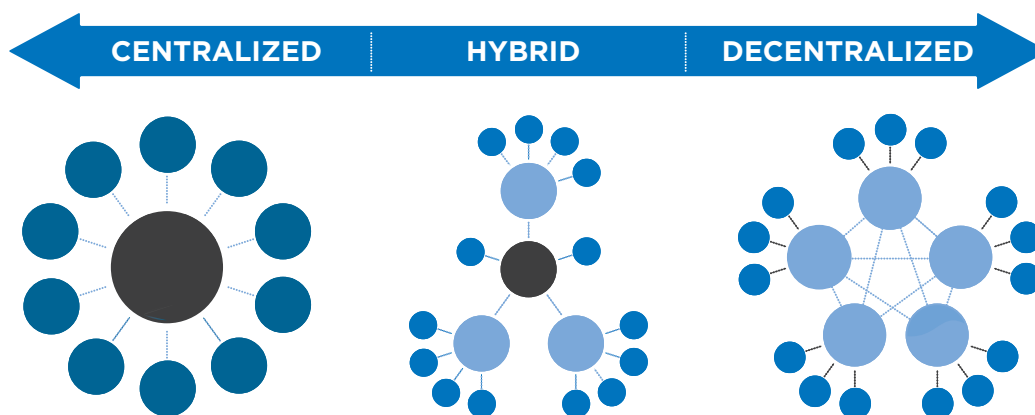
Governance models for HIE have existed for many years, and their value in providing clarity and transparency of the roles of stakeholders and processes for oversight, engagement, and accountability is widely understood. Nevertheless, the Cooperative Agreement Program requirement to specify a governance model for the state health information exchange, and the specific direction given to the state-level efforts by the federal government, have stimulated a review and restatement, or realignment, of the roles of public and private stakeholders within a given state.

States have significant latitude in the selection of a governance model. As a result, states are selecting models that meet the needs of their state, including a hybrid that incorporates elements of more than one governance model. This paper examines the ONC-approved strategic and operational plans under the state Cooperative Agreement Program, with a specific focus on the governance models selected. As of the date of publication of this paper, that examination identified three governance models that are the most prevalent among the cooperative agreement awardees. The three models are best thought of on a continuum, and states are at various points on the continuum.

In order to determine which model a state's plan most closely resembles, the paper considers the approved strategic and operational plans across five domains and attempts to answer the following questions:

- Does the state government have the right to veto or override the SDE or a contracted HIE?
- Who is liable for the actions of the SDE or contracted HIE?
- Who is responsible for the financial management of the funds received by the SDE under the Cooperative Agreement Program?

Governance Model Continuum



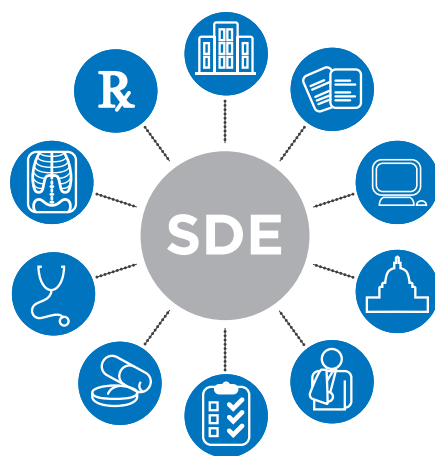
Models for State Designated Entities for Health Information Exchange

Centralized Model

The centralized model consists of an SDE that acts as a health information organization (HIO) for the entire state. Some states have chosen an SDE that was an existing HIO, while others have built an HIO from the ground up. The SDE allows regional health information organizations (RHIOs), hospital systems, and individual providers to connect to their HIO, as well as public health and, potentially, Medicaid. The SDE typically performs the following core services:

- Exchange of clinical and, potentially, administrative data
- Exchange of the continuity of care document (CCD)
- ePrescribing
- Medication history and reconciliation
- Delivery of lab results
- Management of a master patient index
- Record locator services
- Electronic eligibility and claims transactions
- Computerized Physician Order Entry (CPOE)
- Provider portal

Centralized Model



The centralized model consists of an SDE that acts as a health information organization (HIO) for the entire state.

In the centralized model, the state designated entity can either be a public entity or a public-private partnership.

Public Entity

Some states may choose a model where the SDE is wholly controlled by the state department that entered into the cooperative agreement with ONC. While they may have private sector representation on governance committees, the organization that entered the cooperative agreement is responsible for the work of the SDE, and is the final authority on the policies and operations of the SDE. The public entity may delegate or outsource the work associated with increasing connectivity and fostering a smooth flow of patient-centric information, but they retain ultimate responsibility and authority.

Example From the Field: South Carolina

The South Carolina Department of Health and Human Services (SCDHHS) is the grantee of the ONC Cooperative Agreement and was named the State HIT Entity under the Cooperative Agreement Program. The SCDHHS subcontracted to the South Carolina Health Information Exchange (SCHIE). SCHIE is staffed by the Office of Research and Statistics (ORS) which is a subagency within the South Carolina Budget and Control Board. ORS will work to scale SCHIE for statewide use and transfer it to the Department of State Information Technology. The Interim Governance Committee, established by executive order, will develop standards for privacy, security, and interoperability. Legislation has been proposed to create the South Carolina Health Information Exchange Council, that will oversee the development, implementation, and operation of SCHIE; establish the legal and policy framework for statewide HIE operations and sustainability; and implement the strategic and operational plans for statewide HIE. The South Carolina Department of Health and Environmental Control was also named in the ONC Cooperative Agreement and has been an active participant in SCHIE.

Public-Private Partnership

Many states are choosing an SDE that is a public-private partnership. The difference in these HIOs is the board composition. In the public-private partnership model, the board is composed of both state and private sector representatives. The board is responsible for setting policy and may also be responsible for operation of the SDE. While the agency that entered into the cooperative agreement maintains final responsibility for implementing a statewide HIE, they allow the board of directors and the various committees, as well as the SDE's staff, to run the day-to-day operations and implement HIE.

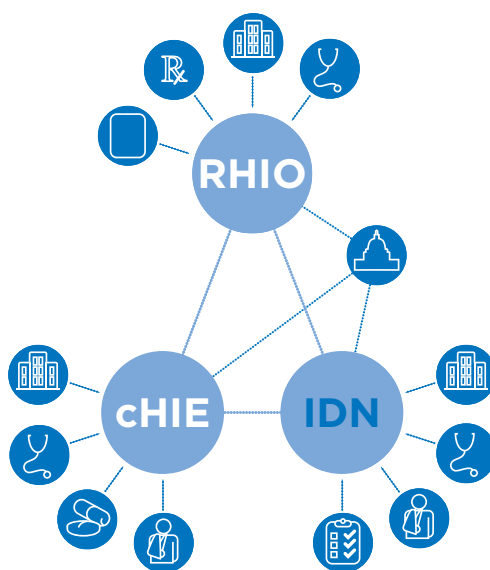
Example From the Field: Utah

The Utah HIT Governance Consortium, staffed by the Utah Department of Health and under the leadership of the State HIT coordinator, oversees the interoperability of the HIE with public health and the healthcare industry. While the Department of Health staffs the Consortium, it is a statewide public-private collaboration. The SDE is the Utah Health Information Network (UHIN), a not-for-profit public-private collaboration that has been an operational health information exchange working with the healthcare community since 1993. UHIN is responsible for implementing the operational plan and will provide core HIE services to the state.

Decentralized Model

In the decentralized model, the SDE acts as a facilitator and a convener, setting policies and regulations. The SDE creates the environment for existing HIOs and hospital systems to connect to each other. In this model, the SDE typically provides grants to HIOs through a public Request for Proposal (RFP) process and has the HIOs build the infrastructure of a statewide HIE. The HIOs must abide by the policies and terms of the contracts signed with the SDE, which normally include stipulations on interoperability and required services. The SDE provides no core services, but is responsible for policy creation. The SDE, however, is still ultimately responsible for creating statewide health information exchange under the Cooperative Agreement Program with ONC and may supply services through separate contracts to support areas not covered by existing HIOs.

Decentralized Model



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Example From the Field: Texas

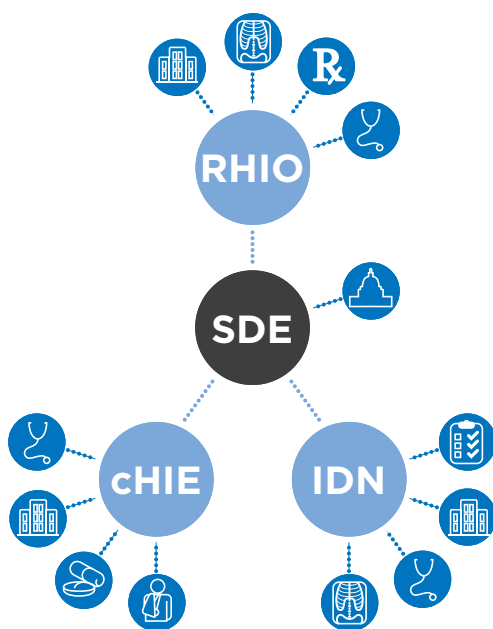
The Texas Health and Human Services Commission serves as the fiscal agent and has contracted with the Texas Health Services Authority (THSA), a nonprofit corporation created by the Texas Legislature in 2007 to facilitate collaboration, assist with the appropriate alignment of incentives, and set policies and standards to support a statewide HIE. Through the use of a hybrid state HIE architecture that is reliant on local HIEs to provide data exchange, THSA will contract with the local HIEs to facilitate statewide shared services, including a record locator service, provider directory services, NHIN connectivity, and core HIE service for the white space, or areas without a local HIE network.

Hybrid Model

The hybrid model combines characteristics of the centralized and decentralized models. In the hybrid model, the SDE does not act as an HIO for the state, which means clinical data does not reside at the SDE. The SDE creates the policy framework and is ultimately responsible for implementing the statewide HIE, even though it is not the HIO. In the hybrid model, the SDE will enable health data exchange, yet how they accomplish this will vary. The extent to which a state provides the technical infrastructure and specific services via that technical infrastructure, and the extent to which it facilitates interoperability between existing HIOs and hospital systems, will be dependent on the circumstances and decision makers within a given state. In the hybrid model, the SDE may supply future services that may capture data for analysis and reporting purposes. Within the hybrid models of the approved SDE plans examined, the SDE typically provides the following services:

- Master patient index
- Provider registry
- Patient and provider identity services
- Record locator services
- Consent management
- NHIN gateway
- Auditing services

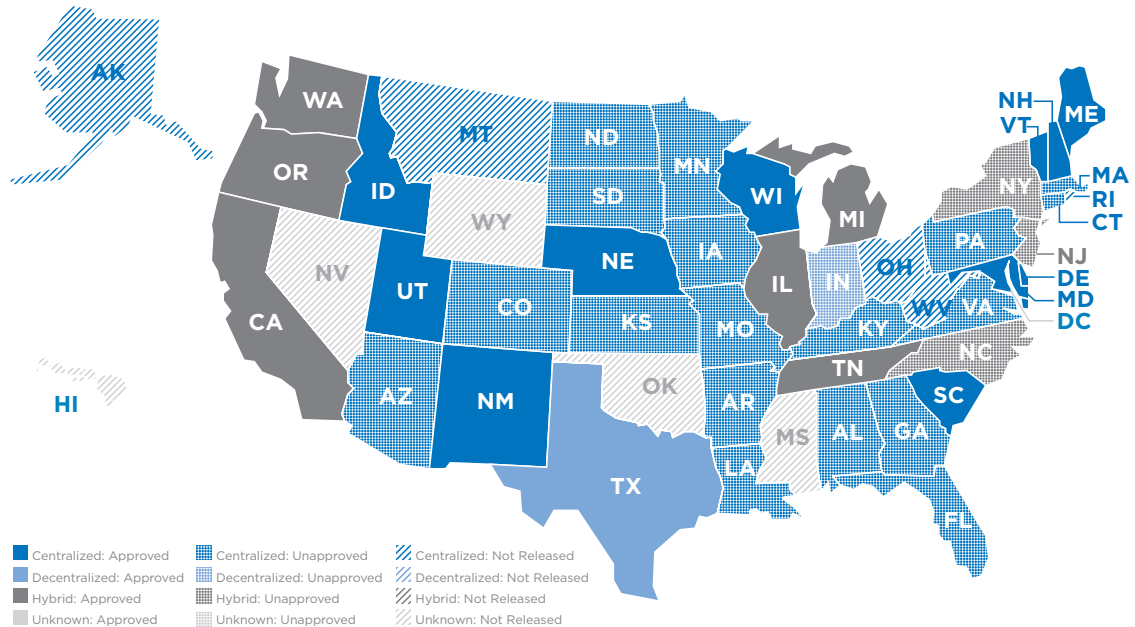
Hybrid Model



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Example From the Field: Michigan

Michigan has a collaborative governance structure with the Health Information Technology Commission and the Michigan Health Information Network (MiHIN) Shared Services. A not-for-profit and the SDE, MiHIN Shared Services is responsible for implementing the state's operational plan and has complete authority over its organization. The HIT Commission, created by the Michigan Legislature and a participant in the governance of the SDE, is responsible for recommending policies for HIT and HIE adoption, as well as for monitoring the progress of HIT and HIE statewide. MiHIN uses the network of networks architectural model. Providers will connect to substate HIEs that will in turn connect to each other via the MiHIN Shared Services Bus.



Factors to Consider When Selecting A Governance Model

It is clear that a single template for a state HIE plan does not and likely will not exist. Any model selected by a state will have its pros and cons. Ultimately, states will select a governance model that they determine is best for their geographic area, political climate, and population size, aware that the governance model is foundational for the successful operation of health information exchange. When choosing a model, states should consider the following:

- **Geography** — requirements for building the infrastructure will vary based on the size of the state and the urban/suburban/rural make up. Whether providers working in multiple regions within a state are required to join multiple HIOs is a potential issue in a hybrid or decentralized model as well.
- **Trust Framework** — the level of cooperation and consensus that can be obtained will affect the model chosen. Determining who will manage patient consent, the state or the local HIO, is also critical.
- **Population Size** — the number of providers and hospitals, and the number of patients, can be complicating factors. A larger patient population may necessitate customization of services to meet unique needs, which might suggest a hybrid or decentralized model.

A highly centralized model may be optimal for states with a small geography and a small number of providers and patients, while physically large states with large populations may have difficulty implementing a centralized system. In addition, a highly centralized model enables existing health information exchanges to build one interface rather than many. However, privacy and liability concerns arise with a highly centralized model.

The decentralized system is optimal for states that have well-established, sustainable health information exchanges that are already working together. However, the decentralized model can become incredibly complex, making it difficult to move toward the end goal of a single patient record. In addition, health information exchanges will have to create multiple interfaces in order to cover the entire state, which can become very costly. Finally, interstate coordination may be difficult in a decentralized model and may lead to duplicative efforts by the health information exchanges or the state.

The hybrid model builds on existing infrastructure, but may require the health information exchanges to build multiple interfaces in order to connect the entire state. Also, some hybrid models do not offer core services, such as a record locator service or a master patient index. Consequently, health information exchanges and hospitals would have to perform these functions, incurring additional costs and creating a potentially complex system.

Summary of Governance Model Advantages and Challenges		
MODEL	ADVANTAGES	CHALLENGES
Centralized	<ul style="list-style-type: none">▪ Single user interface▪ Single consent model▪ Single sustainability model	<ul style="list-style-type: none">▪ Increased privacy and liability issues▪ Existing HIE conflicts▪ Diverse community support
Hybrid	<ul style="list-style-type: none">▪ Leverage existing HIEs▪ Support diverse communities	<ul style="list-style-type: none">▪ Sustainability conflicts▪ Multiple user interfaces▪ Multiple consent models
Decentralized	<ul style="list-style-type: none">▪ Leverage existing HIEs▪ Support diverse communities▪ Minimize privacy and liability issues	<ul style="list-style-type: none">▪ Multiple user interfaces▪ Multiple consent models▪ Interstate exchange challenges

ABOUT THE eHEALTH INITIATIVE

The eHealth Initiative (eHI) is an independent, nonprofit organization whose mission is to drive improvements in the quality, safety, and efficiency of healthcare through information and information technology.

Working with its member organizations, eHI works to create a world where consumers, healthcare providers, and those responsible for population health will have ready access to timely, relevant, reliable, and secure information and services through an interconnected, electronic health information infrastructure to support better health and healthcare.

Emerging Issues Impacting the Selection of a Model

It is clear that states should think long term when considering the selection of a model for statewide health information exchange. As states continue to develop their strategic and operational plans, they must evaluate each model and choose the best organizing model on the continuum to meet the needs of providers and organizations in their state and should consider the following guiding principles in drafting their plans:

- The state plans must explain how the state intends to support providers in qualifying for Stage 1, and how, through a phased approach, they will ramp up their services to support providers in Stages 2 and 3. Exchange requirements will increase over time and states must have plans that are flexible and iterative.
- States will need to ensure that they specify the role of the state HIT coordinator in their plans. The Program Information Notice (PIN) from ONC specified in June 2010 that the state HIT Coordinator must develop and advocate HIT policy to achieve the statewide goals and coordinate IT efforts with Medicaid, public health, and other federally funded state programs. The PIN also suggested key activities for the state HIT Coordinator in furtherance of these two roles.
- States will need to clearly explain which entity is responsible for the finance domain. While states do not have to submit a financial plan to ONC until February 2012, they will need to detail who is responsible for the funds received under the cooperative agreement and the uses of the funds; i.e., whether funds will be given to HIEs in the state, to the providers, the REC, or vendors.

Careful planning for long-term health information exchange within a state will be essential to the improvement of the quality, safety, and efficiency of healthcare in each state and, ultimately, nationwide.

1 Health Information Technology for Economic and Clinical Health Act, also known as the HITECH Act, Pub. L. 111-5, div. A, title XIII, div. B, title IV, Feb. 17, 2009, 123 Stat. 226, 467 (42 U.S.C. 300jj et seq.; 17901 et seq.), specifically 42 USC Sec. 300jj-33.

2 Original Funding Opportunity Announcement: State Health Information Exchange Cooperative Agreement Program, http://healthit.hhs.gov/portal/server.pt?open=18&objID=888442&parentname=CommunityPage&parentid=55&mode=2&in_hi_userid=11113&cached=true.

3 Requirements and Recommendations for the State Health Information Exchange Cooperative Agreement Program. Document Number: ONC-HIE-PIN-001, http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_0_5545_1488_17157_43/http%3B/wci-pubcontent/publish/onc/public_communities/a_e/arra/state_hie_program_portlet/files/state_hie_program_information_notice___final.pdf, July 6, 2010.

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