Review of the Health Information Technology Initiatives in Maryland and Georgia

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REVIEW OF THE HEALTH INFORMATION TECHNOLOGY INITIATIVES IN MARYLAND AND GEORGIA

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ABSTRACT

Health Information Technology (IT) is an important topic within the health community currently. Many states must update their status in relation to the Strategic and Operation Plan under the State Cooperative Agreement. In this literature review the findings have been summarized in reference to what is proposed in three states. Key items reviewed are the following; governance, policy/legal, technical infrastructure, business and technical operations, communications/marketing, and relationships to Medicaid/Medicare. With regards to the States of Maryland and Georgia, the State Health Information Exchange (HIE) Cooperative Agreement Program will allow both states to enhance its existing strategic plan and to build an operational plan. In order to address the five domains outlined in the cooperative agreement, Department of Community Health (DCH) plans to spend the first three months amending their strategic plan and building an operational plan that will result in consensus among Georgia’s and Maryland’s stakeholders on the most efficient, cost-effective, sustainable and technically plausible approach for standing up a HIE that ensures providers are able to meet the meaningful use criteria in accordance with national policy guidelines. This submission will compare and contrast Maryland, and Georgia as it relates to the HIE.

Keywords: Health Information Technology, Health Information Exchange, Information Infrastructure.

COMMON HIE GOALS AND OBJECTIVES:

To properly lay the groundwork for this review it is essential to detail the common Health Information Exchange (HIE) goals and objectives. Maryland and Georgia have similar goals and objectives which can be stated as follows:

- To ensure that the statewide HIE has the necessary governance and financial structure to enable its long-term survival and financial solvency;
- To ensure that the statewide HIE comports with the federal requirements for demonstrating “meaningful use,” in particular, the initial requirements for the electronic exchange of prescribing, receipt of structured laboratory results, and the sharing of patient care summaries across unaffiliated organizations;
- To encourage the expansion of the adoption and use of electronic health record technology including the use of certified EHRs;
• To ensure that the statewide HIE system uses federally endorsed and approved technical standards that are compatible with the exchange of electronic health information;
• To ensure that all eligible providers have viable options for meeting the federal requirements for meaningful use in the exchange of health information so that these providers can qualify for incentive payments;
• To ensure that the statewide HIE is structured to accommodate continuous technical improvement and expansion to enable incremental and steady growth of the exchange; and
• To secure the trust and confidence of patients and providers patients by providing strong leadership in the creation of a reliable and accessible statewide HIE.

Guiding Principles of State HIE:

• The statewide HIE must be financially self-supporting for the long-term and will not be sustained by government funds;
• Patients retain control and ownership of their personal health information;
• Expanding the capability for the meaningful use of certified EHRs is vital;
• Timely electronic exchange of reliable health information is essential;
• The interests of the medically underserved and medically indigent populations in Georgia require special protection, including health care consumers with special needs, such as children and HIV patients;
• The use of open source technology helps reduce costs and ensure affordability and access to the statewide HIE;
• Conduct of the business of the statewide HIE in an open and transparent manner.

REVIEW OF MARYLAND

Governance

Within the state of Maryland the MHCC has the responsibility to implement a statewide HIE. HIE is the mobilization of healthcare information electronically across multiple organizations in a region, community, or hospital system. The MHCC is the authority for providing oversight to include being identified as being multi-stake holder in the Chesapeake Regional Information Systems for our Patients (CRISP). CRISP is commonly known as the statewide HIE. The governance consists of the following participants; MHCC Policy Board, Board of Directors, and the Advisory Board.

Policy/Legal

In terms of policy and legal it would appear that there are multiple issues but one of the key issues surrounds privacy and security. As Maryland has placed this ambitious plan into action is essential that there is a plan in place to ensure that integrity, availability, and confidentiality is met. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) was used as the foundation and guide in the design of the statewide HIE. With that stated certain data needs to remain confidential and for that to properly occur there needs to be a method for encrypting data. Also something needs to be in place to ensure that the sender is whom the sender actually is. As President Obama signed the Cyber Security act of 2010 and the Department of Defense (DoD) has implemented its DoD 8570 which requires professionals to be certified to in order to work on government IT systems. With this stated there is no path forward mentioned in relation to maintain a group of qualified personnel to ensure the security posture is maintained.
Technical Infrastructure

The section on technical infrastructure is important as this sets the foundation on how the new systems and capabilities will be implemented within the state. The statewide HIE was designed with the ability to grow and adapt over time to accommodate new technologies that may need to be implemented to maximize performance. The technical infrastructure is also ensuring that confidentiality, integrity, and availability are being met as the systems come on line and expand to include those already in operation. The HIE is positioned to be a hybrid, standards-based model (Maryland health information, 2010). The exchanged of information will consist of utilizing Healthcare Information Technology Standards Panel (HITSP) endorsed Cross-enterprise Document Sharing (XDS). This infrastructure allows for supporting both distributed data and Health Record Bank (HRB) (Maryland health information, 2010).

Below Fig. 1 displays the Maryland Health Information Exchange Fundamental Design. This design details how the HIE will retrieve information from HRBs, physician practices, laboratories, radiology centers, and RxHubs. The HIS shall provide the data to hospitals and the Nationwide Health Information Network (NHIN) which includes other states’ HIEs and federal agencies. The issue is currently this system is not fielded fully. This system is more in the conceptual design phase.

![Maryland Health Information Exchange Fundamental Design](http://mhcc.maryland.gov/electronichealth/hiestateplan/HIT%20State%20Plan-012510.pdf)
Viewing the HIE Services Implementation Timeline the following have been done such as technology Request For Proposal (RFP), technology award(s), develop technology project plan, master data use agreement development, codify initial policies and guidelines, communication and outreach plan, core infrastructure config and roll out, prescription pill status and/or medication history, electronic prescribing clinical laboratory ordering and results delivery.

**Business and Technical Operations**

The requirement statewide is that the HIE will require that EHRs connecting to the utility must meet technical requirements first. Once these technical requirements are met then a certification shall be issued. EHR systems will have to report on quality metrics and must provide data demonstrating that they are utilizing the functionality of the system. This is to ensure that the implementers are not simply having the systems on standby on a shelf. This serves as a motivators to ensure more individuals are using the system. Stated in the state is that only several employees are anticipated to be hired initially. However as time progresses there will be a large need for talent however currently there is a lack of available talent. Programs such as The George Washington University and others are seeking to close to talent gap in this emerging field. The MHCC is also taking in consideration the vendor risk management, industry techniques, and a comprehensive Disaster Recovery Plan (DRP).

**Communications/Marketing**

Maryland has provided its communications and marketing it via The Maryland Health Care Commission government website. On this particular web site provided is information for consumers, health care community, small employer/employees, and policymakers. Aside from that there are numerous events to provide the community at large updates and provide further details on its changes. As The Johns Hopkins University sites on one of the committees to include others have expanded the overall awareness of this in the academic and research communities. However I think there needs to be a forum to educate those who reside in rural communities in Maryland and those disenfranchised in the larger cities.

**Relationships to Medicaid/Medicare**

Maryland is only of one of four states within the United States (US) that are participating in the CMS five year demonstration project. This demonstration project is to encourage small to medium sized primary care physician practices to utilize EHRs. Currently over 250 physician practices in the Greater Maryland-DC Metro were selected to participate in either a control or treatment group (Maryland health information, 2010).

**Conclusion**

In comparison to other states is it has been proven that the state of Maryland is in the forefront of change. This change that Maryland is in the forefront is a path forward for meaningful use of health IT system, compliancy for HIPPA, and implementation of technology into healthcare. The main issue at hand is where are the technology professionals to maintain the system to include if the healthcare industry with move more toward the National Institute of Standards and Technology (NIST) Special Publications. Overall this state has an aggressive plan but is actively taking the appropriate steps to ensure the technology in healthcare become one that physicians and end users alike will partake in.
REVIEW OF GEORGIA

The State of Georgia has special challenges which make health information exchange especially appealing because HIE’s will effectively both cut costs and improve care. From the Georgia DCH Health Report (2005), while Georgia ranks 28th in per capita public health spending, the state continues to face significant health care challenges including the fact that Georgia ranks:

- 41st in premature death
- 43rd in infant mortality
- 41st in cardiovascular deaths
- 46th in infectious disease
- 38th in Obesity rates
- 28th in per capita public health spending

With regards to the State of Georgia, the State HIE Cooperative Agreement Program will allow Georgia to enhance its existing strategic plan and to build an operational plan. In order to address the five domains outlined in the cooperative agreement, DCH plans to spend the first three months amending their strategic plan and building an operational plan that will result in consensus among Georgia’s stakeholders on the most efficient, cost-effective, sustainable and technically plausible approach for standing up a HIE that ensures providers are able to meet the meaningful use criteria in accordance with national policy guidelines.

Likewise, Florida recognizes the potential benefits for its citizens of strengthening its health care system through the timely, secure and authorized electronic exchange of patient health information among health care stakeholders. The use of electronic health records by providers and the expansion of electronic health information exchange (HIE) between health care stakeholders is expected to support patient-centered health care and continuous improvements in the quality, safety and efficiency of care, as well as supporting public health (Network, 2011). Florida is now able to significantly advance its plans for building a statewide health information infrastructure upon which to build sustainable HIE services of value to Florida providers and other stakeholders and that support providers in meeting meaningful use criteria (Network, 2011). This paper will start to discuss particular domains within the Strategic and Operational Plan under the State Cooperative Agreement and also list the objectives of the different domains. It will also be able to identify the risks and mitigation strategies.

Benefits of an HIE

The statewide HIE is expected to evolve gradually and incrementally and thereby enable the inclusion of more unaffiliated health care providers, consumers, insurers, and others to engage in the secure, confidential, and reliable exchange of health information. This efficient and timely exchange of health information electronically will facilitate the improved care and treatment of patients throughout Georgia and surrounding states and enable Georgia residents and the residents of other states to obtain first rate medical treatment from Georgia’s nationally recognized providers and medical facilities.

State HIE Strategy

To build a sound HIE it is best to leverage existing infrastructure where viable, extend scope and scale where applicable. We will take advantage and use networks that are working today. We will build bridges to connect them where they do not exist. Thus, allowing networks to connect with each other to
foster a “network of networks.” This will require use of open standards, using secure Internet protocols for routing and to support Meaningful Use.

Public Health Information Exchange versus Public/Private HIE Approach

The Public/Private Approach captures the long-term strategy of the State of Georgia. This approach will allow the State of Georgia and its citizens to leverage the HIE in both the public and private sectors. Therefore, the statewide HIE architecture will be a true “network of networks” capable of connecting approximately 150 acute care hospitals and 2,000 physician practices throughout Georgia, as well as other participants, such as health plans and employers. The infrastructure will support the meaningful use requirements and eventually connect with other HIEs regionally and nationally (preferably through NHIN wherever that is feasible). The statewide HIE will serve to interconnect the existing Service Area HIEs in Georgia and will “fill in” to provide connectivity to providers and other participants outside any of those areas. The statewide HIE will provide a mechanism for authorized individuals to perform sophisticated analytics and reporting for public health, bio-surveillance, and other appropriate uses of aggregate data (sometimes called secondary use). Please see graphical depictions of the HIE approaches below:

**Figure 2:** Public/Private Approach

**Figure 3:** Public Health Information Exchange
MEANINGFUL USE

- Achieve widespread adoption of the following health information exchange services among providers eligible for Medicare and Medicaid incentives and other stakeholders to the extent possible: (Network, 2011)
- Retrieval of patient health records from disparate data sources upon a treating provider’s request
- Electronic eligibility and claims transactions
- Electronic prescribing and refill request.

PROPOSED TECHNOLOGY STRATEGY TO SUPPORT MEANINGFUL USE

The overall technology strategy for statewide services to support meaningful use includes the following key components:

1) The strategy is based on a service-oriented approach to system design using the Internet.
2) The strategy includes the development of technical specifications and software components required for meaningful use.
3) The software components may be separated into so-called “core components” that comprise the infrastructure for statewide HIE and so-called “non-core components” that provide value-added services.
4) Policy must inform the development of the messaging framework and trust framework specifications.
5) The core components implement the messaging framework and trust framework specifications.

COMMUNITY EDUCATION & OUTREACH

- The state of Florida provided a detail outlook on what the communication plan and outreach will entail. The efforts involved are as follows:
- Provide information and educational materials to the general public.
- Review outreach programs and activities currently undertaken by APA or other chapters and determine how to coordinate or build upon these national outreach programs at the state/section level.
- Promoting expansions and improvements to the APA Florida website to provide outreach and planning information to non-members. (Network, 2011)
- Development of more contact and opportunities with partner organizations, especially as it relates to expanding training and education on the planning profession and issues to the general public.
- Utilization of social media and other websites to provide information to the public

LEGAL POLICY

The Agency and Florida stakeholders recognize that the privacy and security of health information, including confidentiality, integrity and availability of information, is prerequisite to successful utilization of electronic health records and information exchange services. This section of the Plan describes the Agency’s strategy for engaging in a statewide policy development process to facilitate privacy-protected health information exchange among health care stakeholders in Florida and establish a foundation for exchange with other States consistent with state and federal requirements. It describes a process for policy development that incorporates a review of relevant federal and state law, consideration of the need to modify laws and a process for bringing forward such recommendations. It addresses a plan for
communications and negotiations with other states to enable exchange. It addresses policies regarding consumer rights and individual choice to control access and use of individually identifiable health information. It addresses the use of trust agreements among parties to the information exchange that enable the secure flow of information.

It addresses how the state will address issues of non-compliance with laws and policies as applicable to health information exchange. The Agency and Florida stakeholders are committed to upholding and acting on the Privacy and Security Framework Principles issued by the U.S. Department of Health and Human Services. These are:

- Individual Access - Individuals would be provided with a simple and timely means to access and obtain their individually identifiable health information in a readable form and format (Network, 2011).
- Correction- Individuals would be provided with a timely means to dispute the accuracy or integrity of their individually identifiable health information, and to have erroneous information corrected or to have a dispute documented if their requests are denied (Network, 2011).
- Openness and Transparency - There would be openness and transparency about policies, procedures, and technologies that directly affect individuals and/or their individually identifiable health information (Network, 2011).
- Individual Choice - Individuals would be provided a reasonable opportunity and capability to make informed decisions about the collection, use, and disclosure of their individually identifiable health information (Network, 2011).
- Collection, Use and Disclosure Limitation - Individually identifiable health information should be collected, used, and/or disclosed only to the extent necessary to accomplish a specified purpose(s) and never to discriminate inappropriately (Network, 2011).
- Data Quality and Integrity - Persons and entities would take reasonable steps to ensure that individually identifiable health information is complete, accurate, and up-to-date to the extent necessary for the person’s or entity’s intended purposes and has not been altered or destroyed in an unauthorized manner(Network, 2011).
- Safeguards - Individually identifiable health information would be protected with reasonable administrative, technical, and physical safeguards to ensure its confidentiality, integrity, and availability and to prevent unauthorized or inappropriate access, use, or disclosure(Network, 2011).
- Accountability - These principles would be implemented, and adherence assured, through appropriate monitoring and other means and methods should be in place to report and mitigate non-adherence and breaches (Network, 2011).

**TECHNICAL ARCHITECTURE**

An HIE must provide a number of important cultural and technical components:

- Data-Sharing Agreements (define policies and procedures for data sharing).
- Data Pipes (the actual networks over which data will flow from place to place).
- Interface Engines (systems that can interpret and translate incoming messages).
- Data Models (the technical term for the architecture of the data sharing system).
- Record Locator Service (one technical solution to finding the location of patient information).
- Master Patient Index (MPI - a common medical record number or algorithm that identifies patients across several institutions).
- Data Repository (the database that holds all of the patient data).

Data sharing models also can vary from full aggregation type systems that collect all data centrally, normalize it (convert it to a common representation scheme), and store it to distributed models that host "record locator services," which serve as a "yellow pages" for where data reside and then fetch that data as needed.

**USE OF SERVICE ORIENTED ARCHITECTURE (SOA)**

It is anticipated that the statewide HIE will embrace a Service Oriented Architecture (SOA) approach which is necessary for the long-term viability of any HIE. Under this approach, the statewide HIE infrastructure will be comprised of numerous services that will run on an enterprise service layer and enable the core functions of the statewide HIE. By incorporating a SOA approach into the design, the statewide HIE will ensure that the exchange takes advantage of developing and advancing services and not rely upon a single service provider for all services. A graphics of the SOA model follows:

![Service-Oriented Architecture (SOA) Model](image)

**ENTERPRISE MASTER PATIENT INDEX (EMPI) AND RECORD LOCATOR SERVICE (RLS)**

An essential capability of health information exchange is to accurately match patients with their records in order to find and retrieve health care information on a particular patient where it resides. This is accomplished by implementing an Enterprise Master Patient Index (EMPI) that is comprised of a
database of demographic information on patients and a set of algorithms for the purpose of matching patients with their records from disparate systems. The identifying information in the EMPI serves as the key for matching the records of patients from disparate data sources to enable the creation of a longitudinal patient record.

FINANCIAL SUSTAINABILITY

A statewide HIE must have a financial blueprint and functional business plan to sustain the HIE for the long-term. In order to be sustainable, the HIE financial model will be based on two over-arching guiding principles that support Transaction-based (pay per click), Subscription-based paid by health plans and Subscription-based paid by providers.

The Long-term Sustainability for the Metro HIE will be based upon this HIE’s ability to provide relevant healthcare marketplace business and data services for a reasonable and affordable cost. Long-term sustainability for the HIE will be based upon the HIE’s ability to deliver the following business imperatives:

1. Physician and Consumer Adoption of the HIE services
2. Provide support to demonstrate meaningful use of certified EHRs to providers that participate in the HIE
3. Providing relevant interoperable technology services aligned to Federal Government, State Government and Private Sector Marketplace imperatives
4. Provide reliable, high quality healthcare data to research institutions
5. Building HIE Technical Service Offering Capabilities and Capacity

PHYSICIAN AND CONSUMER ADOPTION OF THE GA METRO HIE SERVICES

The first and foremost business imperative for long-term sustainability is to have a high concentration of physicians and consumers utilizing the HIE services. Physician adoption of the HIE Services is critical due to the nature and types of services that will be provided by the HIE. For long-term financial sustainability, there is direct linkage between physician adoption and the demand for technology enabled clinical services. The direct linkage between physicians and the demand for HIE services are two dimensional.

The first dimension is based upon the individual Physician’s usage of the HIE core services and that physician’s associated satisfaction with the services. As the physician’s confidence and satisfaction grows, so will that physician’s willingness to utilize other HIE services and provide a word-of-mouth reference to other physicians and patients. The second dimension is based upon the pure volume of physicians utilizing the HIE core services. As the adoption and concentration of physicians utilizing the HIE grows, so will the confidence of the physician community grow, which in turn will generate usage of existing services and create demand for new innovative HIE services.

As for Consumers, the HIE will proactively create and sustain ongoing consumer relationships with the Consumer (patient). The consumer relationship is essential for long term financial self-sustainability and marketplace success. As healthcare programs evolve due to private and public sector programs, consumers will continue to demand for high quality, low cost health care options and transparency. The HIE’s electronic medical record transmission services will promote consumer choice and ongoing healthcare transparency initiatives.
A critical aspect of the utility of the HIE will be its ability to support providers’ needs to document and demonstrate meaningful use by joining and using the HIE itself. Most, if not all of the current metrics for demonstrating meaningful use involve the exchange of electronic health information between organizations, something that can be achieved most effectively via the HIE. In addition, the HIE will be able to support the aggregation and documentation needed to generate and report to federal agencies the various meaningful use metrics, as well as to attest the use of the HIE by the provider’s EHR system in an interoperable manner.

PROVIDING RELEVANT INTEROPERABLE TECHNOLOGY SERVICES ALIGNED TO FEDERAL GOVERNMENT, STATE GOVERNMENT AND PRIVATE SECTOR MARKETPLACE IMPERATIVES

Long term sustainability is dependent upon providing the private and public healthcare community with business and technology services that promote, sustain and enable the business of healthcare for the 21st century. The HIE will utilize multiple Advisory Groups including the DCH/HITT Committee, the Clinical Advisory Committee and the Physicians Using Technology Committee to obtain insight on new market relevant services and to ensure that the HIE continues to provide market relevant services for both the Private and Public sector healthcare community.

The HIE will be established to provide Clinical, Electronic Healthcare Record services, First Responder services, Public Health services and Research services that will be at the forefront of supporting the current and forthcoming Federal, State and Private healthcare quality and cost efficiency initiatives.

KEEPING THE HIE SERVICES RELEVANT TO THE PUBLIC AND PRIVATE SECTOR WILL GENERATE REASONABLE FINANCIAL VIABILITY AND SUPPORT LONG TERM SELF-SUSTAINABILITY OBJECTIVES.

Provide Reliable, High Quality Healthcare Data to Research Institutions

In addition to remaining viable to the consumer, physician and healthcare marketplace (Public & Private) as mentioned above, the HIE will be a consistent and stable source of high quality de-identified healthcare data that can be used for clinical studies and population health related activities.

The unique HIE demographics that compose the major stakeholders of the HIE provide healthcare research and practitioners with a valuable source of clinical data that can be de-identified and utilized to support various clinical healthcare studies and research grants. The de-identified data will be provided for ambulatory care research, acute care research, disease management, and other health related research initiatives.

Additionally, the HIE will provide a quality source of de-identified data for Public Health research initiatives. The unique HIE demographics and the expanded state-wide footprint of medical stakeholders providing information will prove to be a valuable and reliable source of population health data that can be used by Public Health and Population Health stakeholders for various research and/or studies such as Communicable Disease Management, Newborn Screening Programs, Immunization Programs, and, Epidemic Analysis and Monitoring.
The HIE will provide a comprehensive de-identified dataset that will prove to be an extremely valuable source of data for public health and health care practitioners while supporting the HIE’s objective to remain relevant in the healthcare marketplace and achieve financial self-sustainability.

BUILDING GA METRO HIE TECHNICAL SERVICE OFFERING CAPABILITIES AND CAPACITY

In addition to achieving the three business imperatives above, the Long-term sustainability plan will be based upon the HIE’s ability to build technical service capabilities and capacity by strategically leveraging and deploying the Healthcare Use Cases that are already defined by the American Health Information Community (AHIC). At the completion of the HIE implementation, the HIE will have the necessary technical service offerings, AHIC use case capability, technical capacity and infrastructure to assist with Quality care reporting initiatives, Comparative Effective Research initiatives and obtaining Grants from the four largest healthcare related organizations including the Agency for Healthcare Research and Quality (AHRQ), Homeland Security, Center for Disease Control (CDC) and the National Institute of Health (NIH).

For sustainability, the intent of the HIE will be to generate revenue through services being offered to the healthcare marketplace while performing necessary and important healthcare quality and comparative effective research utilizing the population of data resident in the HIE.

In summary, these business imperatives for the HIE are foundational in nature and are intended to keep the HIE in touch with the healthcare community and relevant with marketplace services. Staying connected with the healthcare community and providing relevant marketplace services will enable the HIE to generate an annual business income that will be the source for achieving long-term self-sustainability year after year.

STATE REQUIREMENTS FOR PRIVACY AND SECURITY

Below are a set of recommendations regarding privacy and security guidelines for exchanging health information. The Privacy and Security Requirements follow:

- **Allowable uses and disclosures of protected health information (PHI) via HIE**: Uses and disclosures of PHI for transmitting through an HIE are initially limited to clinical treatment where a health care provider/individual relationship exists and mandated public health reporting purposes.

- **Patient consent to transmission of PHI via HIE**: An opt-in policy must be obtained to transmit PHI through an HIE for all other purposes before the information may be exchanged electronically.

- **User authentication within an entity**: An entity shall authenticate each authorized user’s identity prior to providing access to PHI. An entity shall authenticate each user to the level of authorized access that complies with the entity’s level of trust agreement with the external exchange entity.

- **Entity authentication within a “trust network”**: If an entity is participating in a trust network, the trust network shall manage entity authentication for those participating on the trust network, and an entity shall manage user authentication only for those entities participating on the trust network.

- **Two-factor authentication**: Requires that two separate pieces of information and processes be used to authenticate, or verify the identity of, a person or other entity. In the context of user authentication, this is often considered to be any two of “something you know, something you have, and something you are’.”
**HIE PHASED APPROACH**

We are taking a phased approach to the implementation of our HIE solution. We will complete the process in four (4) phases. Phase 0 (Feasibility) is referred to as the Feasibility Phase with the main goal of developing a Business Case. Phase 1/2 (Strategy & Planning) will drive toward the completion of a Business Plan. Phase 3 (Implementation PMO set-up) focuses on the implementation of the HIE and the associated Project Management Office (PMO) which will provide the tools, techniques and structure for implementing the HIE. Phase 4 (Operations) deals with the actual operation of the HIE [i.e. transition to Health Information Organization (HIO)] whereby we will realize the true benefits of the HIE as well as its contribution to Meaningful Use. In summary, each phase is depicted below with a snap-shot of the key components and deliverables associated with each of the four phases.

**Figure 5: HIE Phased Approach for Phase 0-4**

**GOVERNANCE**

The Governance Organization, through its Board of Directors, will approve all policies, procedures, and agreements relating to the statewide HIE. DCH, as well as other stakeholders, recognize that the regulatory environment in which the HIE operates will change as new requirements of the HITECH Act section of ARRA become effective and other laws are passed, other regulations are issued, and other guidance is provided. DCH recognizes the need for on-going review and revision of HIE policies and procedures and anticipates that the Governance Organization will designate an officer or committee with responsibility for compliance by the HIE with ever-changing federal and state legal and policy requirements. A graphical depiction of the governance structure is captured below:
CONCLUSION

There are many opportunities for the state of Florida to become the leader in HIE. Within the plan, gives many details of how they are going to address every detail in the 7 domains under the State Cooperative Agreement. This paper listed all the objectives that the state of Florida planned for success according to the State Cooperative Agreement. They are able to execute this strategic plan with precision due to the extensive planning that was foregone. The state of Florida was able to address all the risk and mitigation strategies. There is concern whether the developing market will achieve optimal interoperability and that security is maintained in the exchange of clinical documents. Another concern is that providers and their electronic health record vendors have access to authoritative source of provider information for accurate routing and to enable users to find pertinent information about the health care provider that may be a source or receiver of a document (Network, 2011). The Agency proposes to continue Florida’s notable progress in the adoption of electronic prescribing through education and outreach and through the promotion of the Florida Medicaid Health Information Network to Medicaid providers for e-prescribing. The Agency will also work with state professional pharmacy associations, pharmacy colleges and other stakeholders to address remaining barriers to full pharmacy participation (Network, 2011).

REFERENCES

Bell, Karen (2008). The National Alliance for Health Information Technology Report to the Office of the National Coordinator for Health Information Technology on Defining Key Health Information Technology Terms. Washington, DC.
Georgia Department of Community Health. (2010). Georgia Health Information Exchange Strategic and Operational Plans, Georgia Department of Community Health, Atlanta, GA.
APPENDIX A

Key Definitions

- **Entity**: A legal business entity that assumes responsibility for safeguarding the patient health information under its control and for managing in a secure manner the exchange of PHI. Entities may be physician practices, hospitals, clinics, pharmacies, health plans, state or federal agencies, health systems, or HIOs. The responsibilities of Entities include ensuring that their users are reliably authenticated when they request access to PHI that is controlled by other entities, and reliably authorizing access to the PHI they control when requested by other Entities.

- **HIE**: The electronic movement of health-related information among organizations according to nationally recognized standards. HIO is an oversight organization and RHIO is a type of HIO. In many instances, HIE has been used to describe both the process of health information exchange and the entity overseeing and governing the exchange. Consequently, HIE and RHIO were often used interchangeably. To provide greater clarity, three terms are defined to achieve both separation of meaning and a construct to accommodate a wide range of current and future organizations for information sharing.

- **HIO**: Or health information organization, an organization that oversees and governs the exchange of health-related information among principals. HIOs may include regional HIOs, IPAs, or other private non-profit, private for-profit, or government Entities that oversee and govern HIE.

- **RHIO**: A health information organization that brings together health care stakeholders within a defined geographic area and governs health information exchange among them for the purpose of improving health and care in that community.

APPENDIX B

State of the Health Information Exchange in Georgia – A Few Select Examples

Georgia’s large geographical size, its isolated pockets of rural poverty, and the absence of broadband connections in certain areas present significant challenges to expanding the use of health information technology and to forming a statewide HIE. Even so, the formation of small and medium-sized operational HIEs in Georgia has been steadily progressing. These HIEs exist in varying forms and have a wide array of functionality.

- The Chatham County Safety Net Planning Council, Inc. (CCSNPC) launched an HIE in May 2010. Its electronic health technology system includes medical records and e-prescribing. CCSNPC primarily serves the medically indigent. The HIE links the J.C. Lewis Health Center, a FQHC, and Memorial Health University Medical Center, a major hospital in Savannah. CCSNPC is actively working to expand its HIE to provide additional network services to other providers in the Savannah area.

- State Office of Rural Health (SORH) operates the Georgia Farmworker Health Program (GFHP). GFHP provides health care services to 21 rural counties through six clinics located in central and South Georgia. In 2007, SORH created a technology solution to allow online access through a secure Internet browser.

- Georgia Healthcare Systems, a Health Center Controlled Network, connects Georgia’s 27 Federally Qualified Health Centers (FQHC) electronically via a practice management system. These FQHCs deliver services at 114 sites and 82 rural health clinics.

- Children’s Healthcare of Atlanta, an operational HIE, uses comprehensive EHRs to link its member hospitals in the system.