Alabama Strategic Plan
For
Health Information Exchange (HIE)

Alabama Health Information
Exchange Advisory Commission

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Acknowledgements

The State of Alabama thanks the many members of the Alabama Health Information Exchange Advisory Commission (Advisory Commission or AHIE Advisory Commission) and Workgroups for their ideas, expertise and time in developing the Alabama Strategic Plan for Health Information Exchange (HIE). The enormous amount of volunteer commitment has been extraordinary and has resulted in a concrete Strategic Plan framework from which a detailed Operational Plan can be developed that will meet the needs of the state, providers and consumers.

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Executive Summary

Introduction

Planning for the electronic exchange of health information in Alabama began long before the Health Information Technology for Economic and Clinical Health (HITECH) Act was passed by Congress as part of the American Recovery and Reinvestment (ARRA) Act of 2009. Since January 2007, the Alabama Medicaid Agency has exchanged some basic health information through a Medicaid Transformation Grant (MTG) initiative known as Together for Quality. As a result, Alabama has a web-based electronic health record system that compiles claims-based information from both Alabama Medicaid and Blue Cross and Blue Shield of Alabama as well as certain physician-entered clinical information. This information is available through an end use application known as QTool or through uni-directional CCD exchange. Alabama’s current health information technology (HIT) system is a hybrid model, with Medicaid data centralized and other data sources pulled in at the time of query. The lessons learned from this initiative have positioned the state to move forward to develop the statewide policy, governance, technical infrastructure and business practices needed to support both the delivery of HIE services and providers’ ability to meet meaningful use criteria.

Alabama’s Approach to Developing Strategic Plan for Health Information Exchange

To assist in the development of the state’s Strategic Plan for HIE, Governor Bob Riley appointed an Advisory Commission comprised of chief executive officers and agency directors from key stakeholder organizations. The Advisory Commission began meeting in January 2010 and will continue to provide direction during the planning and initial implementation of the HIE. Workgroups, corresponding with the five domains recommended by the Department of Health and Human Services Office of the National Coordinator for Health Information Technology (ONC), were established to make recommendations to the Advisory Commission during this process. In addition, due to the critical importance of developing an effective communications strategy, Alabama added a sixth workgroup to address marketing and communications.

The Advisory Commission, chaired by State Medicaid Commissioner Carol Steckel, with State Health Officer, Dr. Don Williamson, as Vice-Chair, have been actively pursuing a consensus approach to fully understand the needs and capabilities of the health care provider community and consumers. The proposed Strategic Plan reflects that input. The stakeholders involved in the process span a wide range and include representatives from Health and Human Service
agencies, the provider community, academic programs, health information organizations (HIO)s, patient advocacy and payor groups

ARRA offers an unprecedented opportunity for states to make giant steps forward in adoption of electronic HIT. With federal incentive money potentially available as early as October 1, 2010 for Medicaid providers who can demonstrate "meaningful use" of electronic health records (EHRs), Alabama Medicaid is simultaneously working on its State Medicaid HIT Plan (SMHP) and appropriate I-APD. The state is working diligently to address both the readiness of providers to exchange information and the readiness of providers to use IT in a meaningful way so that Alabama providers can access the full meaningful use incentive payments and avoid any potential future penalties.

Creating the Alabama HIE (AHIE) is the next step in establishing a twenty-first century HIT infrastructure for Alabama. The AHIE will provide a necessary foundation for health care facilities and providers to eventually exchange health care information with labs, pharmacies and other providers. Absent a functioning statewide information exchange, the ability for providers to benefit from the federal incentive funding will be limited. Therefore, it is critical that Alabama move forward expeditiously to put AHIE in place as soon as is reasonably possible.

**Why Alabama Health Care Information Exchange (AHIE) Matters**

The AHIE has the potential to significantly improve the quality and efficiency of care between Alabama and other states and within the state by providing the mechanism for providers, when appropriate and necessary, to access critical information about a patient when health care practitioners most need it - at the point of care.

The Advisory Commission has identified key user stories that are dependent on and demand the use of HIT to help them define, design and implement strategy to meet the most critical needs of providers and patients first. For example, one use case addresses how a primary care physician handles a referral of a patient with shortness of breath to a cardiologist.

Using capabilities provided by the AHIE as currently proposed, all providers over time will be able to view health history, recent lab and imaging results, hospital records, medications prescribed and other key information about the patient. This will reduce the need for duplicate tests and provide information needed to avoid harmful drug interactions and ensure that all drugs prescribed are needed.

The AHIE will also provide the infrastructure to reduce the administrative burden imposed on health care practitioners, hospitals, nursing homes and laboratories
by state and federal reporting requirements. State and federal agencies currently require health care institutions to submit a myriad of public health surveillance information, health care quality and cost data. Health care providers must enter the required information into seven or more different applications. Ultimately, the goal is that through wider adoption of EHRs by practitioners and health care facilities and the ability to move information through the AHIE to public health agencies, reporting will be simpler and more efficient.

Environmental Scan of Where Alabama is Today

Hospitals and primary care providers are increasingly using health information systems all across Alabama to provide a strong foundation for HIE readiness. The results of an American Hospital Association (AHA) 2008 survey of Alabama hospitals demonstrated that many of Alabama’s acute care hospitals are using some functionalities of an EHR, though only a few had a comprehensive system in place in all clinical areas. The high adoption rate in hospitals is in part because some of the state’s general acute care hospitals are part of larger health systems. Physician adoption of EHRs is proceeding more slowly, but a final tally can only be obtained once the environmental scan is completed. These initial indicators show progress, but Alabama has much work to do to ensure wider EHR adoption and the necessary broadband capacity to allow optimum exchange of clinical health data.

A variety of data sources provided the baseline information on EHR adoption and use, interoperability, and HIEs in Alabama, including Alabama specific information gathered through the AHA national survey, collection of information from subject matter experts, and data from various state associations. Further information is being collected via a state specific scan that is currently in process and AHA will be updating their information in 2010.

Alabama has a number of health system or hospital enterprise networks across the state that exchange health information. Planning efforts are also underway for at least one HIO. The technical design decision to date has been to connect with the HIO and existing networks to avoid duplication; implement further, faster; and reduce unnecessary additional connectivity costs.

The state itself is a major driver on the health information highway as a purchaser (Medicaid and Children’s Health Insurance program (CHIP), regulator (Medicaid, CHIP, insurance and tax related to “entities”, privacy, security, etc.), provider (Medicaid, CHIP, Medicare and private insurance coverage) and government “leader” (statewide HIT Strategic Plan). The state as a driver of HIE carries major implications for policy decisions, potential state legislative action, budget considerations, regulation development and implementation, policies and procedures, procurement, reporting requirements (federal and state), and information technology at multiple state agencies and facilities to fully utilize the
options available to states, providers, and consumers to address quality, safety and administrative efficiencies.

**AHIE’S Mission, Vision and Strategic Goals**

The mission of the AHIE is to improve health care quality and efficiency of health care delivery in the state. The vision for the AHIE is to strengthen Alabama’s health care system through the timely, secure and authorized exchange of patient health information among health care providers that results in multiple views but one longitudinal patient record. The exchange of health information through the AHIE will support patient-centered health care and continuous improvements in access, quality, outcomes and efficiency of care.

AHIE’s Strategic Goals in Support of the Mission and Vision include:

- Create immediate access to critical health information for patients, providers and payors to ensure health information is available to health care providers at the point of care for all patients;

- Facilitate administrative efficiencies and clinical effectiveness, including reduction of medical errors, avoidance of duplicative procedures and better coordination of care by linking the full continuum of providers — public and private, physicians, clinics, labs and medical facilities;

- Support the transformation of health care delivery to a quality patient-centered model that engages and educates consumers and providers about the benefits of HIE, and ensures knowledge about privacy rights and protections;

- Create an integrated governance structure for the AHIE that includes a role for key community stakeholders with statewide collaborative capabilities in order to provide the highest functional exchange at the lowest cost;

- Support the meaningful use of EHRs throughout the State and facilitate health care providers’ ability to qualify for Medicare and Medicaid incentive payments by aligning the Strategic and Operational Plans with the SMHP, and;

- Assure inter- as well as intra-state interoperability through the development of an enterprise approach for Alabama that is aligned with the National Health Information Technology Network (NHIN) guidelines.
Stakeholder Engagement

A core principle for Alabama was the engagement of a broad set of stakeholders in developing the Strategic Plan for HIEs. The state has sought to gain buy-in from stakeholders and the community by operating in a transparent way that built off the involvement of providers, consumers, payors and purchasers, public and private. This process was used in the MTG and has proven to be a successful tool as evidenced by the development and implementation of QTool. The Alabama Advisory Commission, which is responsible for providing policy recommendations related to achieving the state’s HIE vision to the Governor, launched workgroups charged with supporting the development and implementation of an Alabama Strategic Plan. In addition to enabling broader participation by interested stakeholders, the workgroup structure enabled specific expertise to be focused and engaged in addressing issues and overcoming barriers to HIE in Alabama. The workgroups charged with supporting the development and implementation of a strategic plan for HIE aligned the five federal domains required by ONC plus one that the state has identified as critical to success.

Five Key Domains Plus One

The Strategic Plan describes the content and process of how Alabama will enable health care providers, consumers, insurers and other stakeholders to exchange health information electronically in a meaningful way through addressing the following five key domains plus one.

Governance

Alabama has been considering various governance options for the AHIE, including government agency, public utility and non-profit. The pros and cons for providers, other purchasers, insurers and consumers have all been considered. Through a designated Governance workgroup, the members followed a process for identifying the role of the state government in relationship to each of the HIE governance models, the role and responsibilities of the AHIE “entity”, as well as the relationship of each to the Governor and each other. Although no final decisions have been made, the Advisory Commission has agreed:

- In the interim, until authority for a permanent governance structure is in place, the Advisory Commission will continue to operate, along with its workgroups to develop the HIE Operational Plan. By May 2010, Governor Riley is scheduled to name a State HIT Coordinator and the Medicaid Agency will provide ongoing staff support to the Advisory Commission.
• In the long term, an AHIE Operating Commission (Operating Commission) will be established with public-private membership as a 501(c)(3) non-profit organization or other formal type of government governing board depending on needs at that time. Transition from the Commission will occur when deemed necessary by factors such as, but not limited to, when HIE is funded by less than a pre-determined amount of public funds, and/or when the product and process is stabilized, or when necessary to mitigate risks to the federal and/or state government.

• The State HIT Coordinator and staff, as state employees, will administratively report to the Governor but will functionally report directly to the Operating Commission. Until alternative and appropriate housing is identified, the State HIT Coordinator and staff will be a part of the Medicaid Agency. The Operating Commission will set policies and have broad authority to make decisions. The placement of the HIT Coordinator maximizes resources in that this person will be responsible for coordinating statewide efforts as well as overseeing operation of the exchange. As HIT efforts in the state expand, it may be necessary to re-evaluate the duties and responsibilities of this position and the need to have additional staff in HIE Operations due to the anticipated workflow and diversity of duties.

The Statewide Exchange Operating Commission aka HIE Advisory Commission will be responsible for developing the Statewide Strategic and Operational Plans and will serve as the governance structure for the Statewide plans that encompass all areas of HIT within the State. The Operating Commission will create an initial set of exchange rules that are expected to mirror the rules for connecting with the statewide exchange. Many of the rules are being decided by the CMS certification requirements and/or existing regulations (e.g., HIPAA). Once decided, the enforcement of the rules will become the responsibility of an existing regulatory authority (e.g. Insurance or Public Health). Additional rules, including the upfront licensing including who has to be licensed, of entities exchanging health information, will be promulgated through the administrative rule making process. It was decided that it was not necessary to incur additional expenses to have a regulatory board at this juncture for an industry that is very limited and as the industry potentially grows many of the rules and regulations will be governed at the national level and easily adaptable

Decisions that still remain include: state oversight of any organization that exchanges information with the HIE (who, how and under what statutory requirements); operational details, such as procurement specifications and processes, and regulatory oversight of health information organizations (HIOs) that don’t participate in the HIE.

This approach mitigates risk to the federal and state government as it allows the effort to move forward using current authority, while more permanent authority
can be established. As the authority for the Advisory Commission is not time limited, the state has the ability to continue to act under its current authority until replaced with a long-term governance structure.

The governance model for the AHIE as currently envisioned by the Advisory Commission is as follows in Figure 1.

**Figure 1: AHIE Governance**

- **Governor**
  - Statewide Exchange Operating Commission aka HIE Advisory Commission
    - Comprised of private/public stakeholders
    - Authorized to operate, build and maintain the statewide sponsored HIE
    - Implements Business Plan, Routine Meetings with HIT Coordinator
    - Develops Statewide Strategic and Operational Plans
    - Creates initial set of exchange rules

- **State HIT Coordinator**
  - Implements Strategic/Operational Plans
  - Oversees Operation of Alabama’s HIE Statewide Exchange
  - Responsible for Coordination with other statewide HIT Initiatives
  - Ensures that “individual” HIT initiatives mesh with the larger statewide vision
  - Coordinates REC efforts to support the statewide vision & implementation of meaningful use
  - Responsible for managing the ONC and other related HIT funding

- **Administration Division**
  - A division of the HIT Office
  - Project Manager
  - Responsibility for budget, reporting and financing
  - Coordination of outreach functions about the exchange

- **HIE Operations**
  - A division of the HIT Office
  - IT Based Project Manager
  - Responsible for Compliance of Technology/Operating Standards including privacy/security issues
  - Contractual oversight of operating exchange, including system design, implementation, testing
  - Oversight of connectivity needs
  - Coordinating and oversight of other Agencies e-health projects to HIE compatibility

- **Meaningful Use Incentive Program**
  - Assigned from Medicaid
  - Project Manager
  - Responsibility for development, implementation and coordination of incentive payment program
  - Coordination of outreach functions to educate providers re meaningful use

- **Domain Workgroups**
  1. Volunteer representatives
  2. Each Domain Workgroup led by Co-Chairs
  3. Discuss issues and make recommendations to the respective HIT Divisions
Finance

Since the state is considering a two-stage approach to governance due to the need for action to complete the creation of the Operations Commission, the Finance workgroup has taken the staged approach into consideration in its deliberations. The Advisory Commission and the Finance workgroup have considered payment models that include: subscription payments (under consideration), private/foundation funding (expected to be limited if not connected to actual operation), state/federal government funding, and transaction payments (not considered viable).

Each payment model was reviewed in relationship to four core principles: funding dependent on the relative value; costs fairly distributed; flexibility in approach that accommodates changes in funding sources and mechanisms as the exchange matures to reflect the new services and benefits; and funding fully utilizing ONC/ARRA federal financial support. The Advisory Commission has discussed, but not finalized, a plan to meet the requirement to submit an annual report on sustainability to ONC that includes a business plan with feasible public/private financing mechanisms for ongoing information exchange.

Technical Infrastructure

The Technical Infrastructure Workgroup has met consistently with the Business and Technical Operations Workgroup to ensure that the business needs and the operational considerations, including legal parameters, were the drivers of the project. The joint meetings also allowed the groups to ensure the technical infrastructure supported the business needs of the HIE, keeping the focus on the vision of one longitudinal patient record.

The workgroup has established some working principles for the AHIE: alignment with the NHIN; alignment with the Medicare and Medicaid national HIE (current and evolving standardization efforts); and utilization of work already complete so local and state resources can be leveraged where possible. All data entering the HIE will be required to be standardized with translation to standardization occurring at the local HIO or provider before it is inputted. In addition, the HIE will comply with the certification standards required by CMS for meaningful use since access to and interchange with Medicare and Medicaid is critical for a unified approach in the state as well as across states. For instance, complying with the NHIN agreements is required in order to exchange data with a federal entity so during the Operational Plan process the state will further research the necessary methodology to pursue such an arrangement.

The Advisory Commission’s approach is to provide a valuable information exchange that will be easy to navigate and timely in its response to queries in order to encourage voluntary participation. To illustrate, it is agreed that the HIE will be a hybrid-model with record locator interfaces, standardization terminology
and transactions, and a hub that includes a master provider index repository, master patient indexing, and a data repository that potentially includes some data components. The plan also calls for an operational structure that assures risk mitigation, adequate response time, access, authorization, authentication and back-up security capacity.

To enhance the potential for a successful total solution that would provide access to key clinical data to assist providers in making clinical decisions, the Advisory Commission concurred that the preferred approach would include contracting with a primary vendor who could provide the total functionality, utilizing administrative data for pre-population if an evaluation determined it valuable, and beta-testing with a pre-determined set of providers before the statewide exchange goes “live”.

The capacity to host an EMR and to be interoperable with other states as well at the NHIN is under consideration but no final decision has been expressed. Since the technical structure to host an EMR is a capacity that is not core to the function of an HIE, it is being considered as a voluntary option that would be available to providers who do not currently have an EMR. If the HIE could provide a hosted solution without significant cost, as it would enhance the potential for some smaller providers to benefit from meaningful use incentives.

In order to gain national insights into opportunities, options and limitations, the Technical Infrastructure Workgroup took advantage of ONC sponsored technical assistance and had a full day meeting in April, 2010 with Noam Arzt, Ph.D. to work through the explicit components of the technical architecture. Particular attention was given to what functions are needed to form part of the technical infrastructure including stages of implementation. In addition, the workgroup seeks to utilize existing IT infrastructure and capacity where possible, such as the core work completed through the MTG. Information gained through the Medicaid MITA Self-Assessment has provided a good foundation for the Statewide HIE Planning and Operational activities. For instance, the MITA self-assessment identified and evaluated the inter-relationship of Medicaid to the other state agencies, which has been incorporated and enhanced through this process.

As an initial introduction to potential vendor solutions, the Advisory Commission sponsored a “vendor day” allowing vendors to present their capabilities with a requirement that each vendor answer specific questions identified prior to the event. The event was delivered via two options – face-to-face and web - so all interested parties throughout the state could participate.

The functionality of the AHIE as currently envisioned is provided in the follow table.
## Table 1
AHIE Functionality

<table>
<thead>
<tr>
<th>Required Functions</th>
<th>Additional Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPLICATION</strong></td>
<td><strong>ADDITIONAL FUNCTIONALITY</strong></td>
</tr>
<tr>
<td>Web-based</td>
<td>Utilize exchange to give providers a single interface with state labs, immunization registry, etc.</td>
</tr>
<tr>
<td><strong>CORE PLATFORM</strong></td>
<td>As more is known about reporting quality measures, evaluate AHIE as a clearinghouse for this information.</td>
</tr>
<tr>
<td>Master patient index</td>
<td></td>
</tr>
<tr>
<td>Directories: Providers</td>
<td></td>
</tr>
<tr>
<td>Connection: capability for secure routing for provider-to-provider messaging, portal access, NHIN gateway services</td>
<td></td>
</tr>
<tr>
<td>Record locator service (RLS)</td>
<td></td>
</tr>
<tr>
<td>Audits / reporting</td>
<td></td>
</tr>
<tr>
<td><strong>PROPOSED CORE DATA ELEMENTS FOR THE INITIAL PHASE</strong></td>
<td></td>
</tr>
<tr>
<td>Medication history</td>
<td></td>
</tr>
<tr>
<td>Problem list</td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
</tr>
<tr>
<td><strong>SUPPORT FUNCTIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Shared agreements</td>
<td></td>
</tr>
<tr>
<td>Provider outreach</td>
<td></td>
</tr>
<tr>
<td>Technical support</td>
<td></td>
</tr>
<tr>
<td>Trust relationships</td>
<td></td>
</tr>
</tbody>
</table>

### Business and Technical Operations

As stated above, in order to ensure that business needs and workflow demands lead the discussion, the workgroups for Technical Infrastructure and Business and Technical Operations met as a joint group for all the initial meetings. Even when the ONC sponsored technical assistance was provided to the Technical Infrastructure workgroup, all members of the Business and Technical Operations Workgroup were invited and most participated.
While the approach for technical design was “think broadly” and incorporate an expansive infrastructure that will meet the needs of today and tomorrow, the correlating approach for business and technical operations was to implement in a focused/targeted approach. The initial focus of the workgroup centered on what is needed to support providers in obtaining and retaining meaningful use incentives and how the state can carry out oversight, while assuring adequate payment with limited additional burden on providers.

Effective collaboration with the Regional Extension Center (REC) in Alabama was identified as a key strategy in making the most of other ARRA funded activities. As a result, the University of South Alabama, Alabama’s REC awardee, is a vital member of the Advisory Commission and serves as a co-chair of the Technical Infrastructure workgroup.

As part of the groups’ vision of leveraging all existing state resources, the REC technical assistance to providers who wish to participate in the State HIE and local HIOs, to the degree any exist, is an important tool to accomplish the vision. The Advisory Commission also is considering the benefit to providers and Medicaid, of additional contracted engagements with the REC for purposes of assisting providers in meaningful use activities.

The Business and Technical Operations Workgroup also was the lead workgroup for the development and implementation of the initial environmental scan (Appendix 11.2) to further identify readiness of providers to participate in an exchange. Additionally, the Technical Infrastructure and Business and Technical Operations workgroups met jointly to discuss the initial and long-term role and identification of the regional HIOs. With funding limitations, the Advisory Commission will focus on the development of the AHIE with the intent to beta test at some local sites that may include HIOs.

A major cross-cutting area lead by the Business and Technical Operations Workgroup was the coordination with Medicaid and the SMHP. Since the Alabama Medicaid Agency is the lead agency for the Advisory Commission and is the support infrastructure for the Strategic and Operational Planning process, coordination with the SMHP and the environmental scan required for both the SMHP and the HIE Strategic Plan has been smooth and uneventful. While CMS and ONC have stated that the State Strategic/Operational Plans and the SMHP are “chapters in the same book”, Alabama has treated them as sections in the same chapters assuring that each activity, operational concept and policy is reviewed from both vantage points. This approach has increased the viability of successful and meaningful exchange and use of health information for the delivery of care, consumer engagement and state/federal oversight. With the State Medicaid Commissioner acting as Chair of the Advisory Commission, the possibility of the Medicaid content in the HIE Strategic and Operational Plans not addressing the needs of the Medicaid population and providers became a non-issue. All Medicaid required sign-off was accomplished as part of the formal Strategic and Operational Plan development process.
To assure that public health issues, existing initiatives and future plans were adequately addressed and incorporated, the State Health Officer was named the Vice-Chair of the Advisory Commission. As a decision maker with a vote, he approved the proposed content of the HIE Strategic Plan as a required sign-off.

The roles and engagement of the other State agencies is an ongoing component of the planning process. State “governance” responsibilities related to monitoring and plans for remediation of the actual performance of HIE has been discussed and has influenced the governance approach recommendations. Although the specific long-term lead agency and location of the Operating Commission will be defined and will only be acted on next year at the state legislature, the need for potential involvement of the Attorney General’s office, the state procurement and contracting office and the Medicaid Agency, have been identified and addressed. The specifics of which items relate to regulatory action versus technical assistance versus operations are yet to be established at a detail level.

The detailed operational plan will provide the explicit business operations and timelines that will be initiated to effectively operate the statewide HIE functions. An overarching concern for this process and timeline is the reality that the state stakeholders need to be able to use this infrastructure as they respond to other health care reform requirements and opportunities, including the reporting of quality measures for children under CHIPRA and meaningful use under ARRA. However, the state is cautious not to make decisions based on mandates and/or immediate financial opportunities that do not support their health care quality and long term financial goals.

The key staff and roles as currently identified are provided in the following table.

<table>
<thead>
<tr>
<th>Key Staff</th>
<th>Role</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT Coordinator</td>
<td>Provide leadership, direction, management and coordination of the State HIT office</td>
<td>1</td>
</tr>
<tr>
<td>HIE Project Manager</td>
<td>Coordinate the efforts set forth in the state to develop and implement a statewide HIE based on the criteria set forth by the ONC and as further defined by the Advisory Commission and workgroups</td>
<td>1</td>
</tr>
<tr>
<td>Meaningful Use Project Manager</td>
<td>Coordinate the efforts set forth by CMS for the implementation and adoption of meaningful use criteria by eligible providers in the Medicaid system</td>
<td>1</td>
</tr>
</tbody>
</table>
### Key Staff

<table>
<thead>
<tr>
<th>Key Staff</th>
<th>Role</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting/Accounting</td>
<td>Coordinate the efforts set forth by CMS for the implementation and adoption of meaningful use criteria by eligible providers in the Medicaid system</td>
<td>1</td>
</tr>
<tr>
<td>Analyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Support</td>
<td>Coordinate and track the various work of other individuals</td>
<td>1</td>
</tr>
</tbody>
</table>

### Legal/Policy

The Legal and Policy Workgroup spent significant time discussing and defining the parameters and questions to be answered concerning the legal framework under which the state HIE and state government will facilitate HIE. The legal framework has been discussed in the context of a policy framework that transitions from the current governance structure to the permanent governance structure -- a method for moving the state, private purchasers/payors, providers and consumers through the process without encountering gaps in funding, leadership or implementation, including risk mitigation strategies and operational processes.

An overarching principle is to align with Medicare and federal standards and only deviate if there is a state law or state imperative that prohibits alignment. In such cases, the HIE, if appropriate, will pursue adjustments in state law and/or regulation to allow for the alignment with the federal approach. This will make inter-state and connectivity with NHIN not only more viable, but less expensive. Areas of particular focus include privacy, security, standards defined in the interim ONC regulation, Medicaid and Medicare requirements and the development of actual policies, procedures and legal agreements related to HIE.

Additional core legal/policy principles for the AHIE include openness, transparency and accountability such that patients can have confidence in the system; due regard for equality and equitable treatment; “do no harm”; personal autonomy of the patient, and a balance between the rights of the individual and the rights of the community.

The workgroup also identified strategies to assure alignment with the principles that establish policies and procedures that result in: completion of thorough planning prior to implementation; periodic review of legal/policy implications; implementation and execution in a timely and professionally competent manner; a fair process for patients and providers in a non-discriminatory manner; design and execution that reflects respect for the person and dignity of the patient; adequate representation for those with diminished capacity; confidentiality and security of personal health information; and compliance with both the letter and spirit of the law.
An example of a policy area that has been identified but is on hold until further guidance from ONC and a national evaluator is named is the evaluation component. Nonetheless, all policy decisions regarding data/information have sought to consider how the information can be used to better manage the project, provide state and federal evaluation information and improve the care delivered. The annual report requirements related to the identified components of the State Strategic and Operational Plans and elements specified in the agreement with ONC will be integrated into the checklist for the core evaluation methodology and process.

**Communication and Marketing**

As stated previously, the significance of consumer and provider understanding and engagement is not only critical to the initiative’s initial success but to the transformation of how health care is delivered and managed in the longer term. Therefore, Alabama has taken an additional step and sent a strong statement by incorporating a Communication and Marketing workgroup into the process. The Communication and Marketing Workgroup is looking at all of the workgroups’ activities and plans in order to provide a unified message across the plans for all of the workgroups. Initially, the workgroup’s focused on identifying relevant stakeholders and constituencies and analyzing audience characteristics, stakeholder interests related to HIE, potential opportunities and likely barriers to adoption as a prelude to the development of full-scale marketing and communications plans for implementation. Other operational activities to inform all stakeholders regarding the initiative itself are underway, including Web site development and branding. As indicated, these actions have been externally focused to those indirectly impacted as well as those directly involved in the process.

**Recommendations for the Five Key Domains Plus One**

As the state moves to its detailed operational plan, the workgroups and Advisory Commission are mapping policy and planning activities and addressing optional and mandatory decision points along with identifying funding opportunities and limitations. Since these activities will be a moving target, the stakeholders have chosen strategies that have the ability to adjust to mid-path changes. Throughout the process, the Advisory Commission and state staff intend to track and document changes, determine what must happen sequentially and what can be addressed simultaneously. As indicated above, the state is seeking to put into place the appropriate infrastructure along with human and IT resources. The risk of inaction has to be balanced against the risk of moving without adequate preparation and appropriate consumer and provider engagement.

The recommendations for how to move forward in each of the domains are summarized below:
## Table 3
### Summary of Recommendations

<table>
<thead>
<tr>
<th>Domain</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td><strong>AHIE Start-up:</strong> The initial phase of AHIE is being managed by the State in a highly-collaborative effort with stakeholders as an Advisory Commission chaired by the Medicaid Commissioner, including the State HIT Coordinator, and representatives from state agencies, private purchasers, payors, providers and consumers. The existing governance structure has already completed significant work needed to launch to the next level</td>
</tr>
<tr>
<td></td>
<td><strong>Long-Term Governance through a Public/Private Partnership:</strong> In the long term, an AHIE Operating Commission (Operating Commission) will be established with public-private membership as a 501(c)(3) non-profit organization or other formal type of government governing board depending on needs at that time. Transition from the Commission will occur when deemed necessary by factors such as, but not limited to, when HIE is funded by less than a pre-determined amount of public funds, and/or when the product and process is stabilized, or when necessary to mitigate risks to the federal and/or state government.</td>
</tr>
<tr>
<td>Finance</td>
<td><strong>Sustainability:</strong> Multiple options were considered and some combination of public and private funding will be required with the acknowledgement that state budgeted funding is limited. Subscription payments are under consideration, but transaction payments are not considered viable.</td>
</tr>
</tbody>
</table>
| Technical Infrastructure      | **Technical Architecture Approach**  
  Core Application: Web-based  
  Core Platform:  
  - Master patient index  
  - Directories; Providers  
  - Connection: capability for secure routing for provider-to-provider messaging, portal access, NHIN gateway services  
  - Record locator service (RLS)  
  - Audits / reporting  
  Potential Core Data Elements for the Initial Phase: |
<table>
<thead>
<tr>
<th>Domain</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td></td>
<td>Medication history, problem list, allergies</td>
</tr>
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<td></td>
<td>Additional Functionality:</td>
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<tr>
<td></td>
<td>• Utilize exchange to give providers a single interface with state labs, immunization registry, etc.</td>
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<tr>
<td></td>
<td>• As more is known about reporting quality measures, evaluate AHIE as a clearinghouse for this information.</td>
</tr>
<tr>
<td></td>
<td>• Offer providers a single interface with payors for insurance eligibility and claims checking.</td>
</tr>
<tr>
<td></td>
<td>• Evaluate the inclusion of an EMR in the exchange to promote participation by providers and to serve as a revenue source for the AHIE</td>
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<tr>
<td></td>
<td>Approach: Designed with expansive capabilities, but activated using a targeted approach.</td>
</tr>
</tbody>
</table>

**Business and Technical Operations**

**Implementation Strategy for AHIE:** An incremental approach will be used for implementing the AHIE starting with hospitals and physicians/clinics, and within those groups, entities eligible for meaningful use incentives.

**Key Staff Identified (Employed by the State):** HIE State Coordinator, HIE Project Manager, Meaningful Use Project Manager, Reporting/Accounting Analyst, and Administrative Support

**Legal/Policy**

**Federal Standards:** An overarching principle is to align with federal standards and only deviate if there is a state law or state imperative that prohibits alignment.

**Privacy and Security:** AHIE infrastructure will meet the required federal and state standards for data security and integrity and establish appropriate authentication, credentials and consent management mechanisms to ensure protection of consumer privacy.

**Other Policies:** The operational plan will provide the detail; however, policies and procedures will be pursued that result in: completion of thorough planning prior to implementation; periodic review of legal/policy implications; implementation and execution in a timely and professionally competent manner; a fair process for patients and providers
<table>
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<tr>
<th>Domain</th>
<th>Recommendations</th>
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<tbody>
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<td>in a non-discriminatory manner; design and</td>
<td>showing respect for the person and dignity of the patient; adequate representation for those with</td>
</tr>
<tr>
<td>execution showing respect for the person</td>
<td>diminished capacity allowed, and compliance with both the letter and spirit of the law.</td>
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<tr>
<td>and dignity of the patient; adequate</td>
<td>representation for those with diminished capacity allowed, and compliance with both the letter and</td>
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<td>representation for those with diminished</td>
<td>spirit of the law.</td>
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<td>capacity allowed, and compliance with both</td>
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<tr>
<td>the letter and spirit of the law.</td>
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<tr>
<td>Communication and Marketing</td>
<td>AHIE Communications Strategy: A detailed initial communications plan is being designed to educate</td>
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<td></td>
<td>consumers and providers about how electronic records and HIE can improve the quality and efficiency</td>
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<td></td>
<td>of health care for Alabamans. It will be a unified message covering the work of all of the 5</td>
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<td></td>
<td>domains from the workgroups. The first set of communications in the strategy are focused on what</td>
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<td>the initiative “is” and “is not”, what activities are happening within the state and why, and the</td>
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<td>significance of the scan. Long-term strategy calls for development of strategic communication plans</td>
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<td></td>
<td>to achieve stakeholder collaboration, buy-in and trust of AHIE. Communications strategies will</td>
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<td></td>
<td>also be developed to support and extend the efforts of the other five ONC-domain workgroups in</td>
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<td></td>
<td>Alabama and to facilitate consumer input and acceptance.</td>
</tr>
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</table>

**Outcomes and Performance Measures for Operations and Evaluation**

Although the formal evaluation process is on hold until further guidance from ONC and a national evaluator is named, components of the operational oversight structure have been assessed and reviewed by domain as a part of the strategic planning decision making process. Since the compilation of the parts into an overall strategy is a cross-cutting activity, the legal/policy workgroup has been assigned that responsibility.

An overarching principle has been that the inclusion or exclusion of an outcome and/or performance measure should be based on its usefulness for both day-to-day operations and evaluation at the individual, population, initiative and statewide level from the perspective of consumers, providers, purchasers/payors and providers. Strategies that align with this principle include inclusion of outcomes and/or performance measures that are: useful in meeting requirements for quality reporting under CHIPRA, ARRA and health care reform, including meaningful use; feasible for collection, meaning the necessary data elements exist; specifications can or are already defined; and a method of collect consistency has been addressed, and are National Quality Forum (NQF).
approved measures, measures established by CMS for Medicaid and/or Medicare, and/or measures established through CHIPRA, ARRA or Health Care Reform.

The design of the ongoing governance process assures that there will be monitoring in place. In addition, it maintains a targeted degree of participation in HIE-enabled state-level technical services. Validation of the involvement will be part of the evaluation process and will also be addressed in the 2011 required annual report.

Coordination with Federally Funded Activities

Another component of the annual report that will be submitted for 2011 according to the timeline established by ONC will be information on the alignment of the Strategic and Operational Plans with other ARRA components. Alabama has been extremely fortunate to have been awarded various other ARRA funding projects, including an REC (University of South Alabama), 15 Health Care ARRA Capital Improvement Program Grants, and curriculum development (University of Alabama at Birmingham). The key leaders from other ARRA funded efforts are on the current Advisory Commission and the intent would be to continue to include them in the structure as it transitions to the Operating Commission in the future.

Summary of Call to Action

The use of AHIE as a secure statewide information exchange will offer necessary electronic health information to practitioners providing services at the point of care, improve quality outcomes, enhance patient safety, reduce redundant tests and procedures, lead to a reduction in overall health care costs and improve efficiency in public health monitoring and tracking. The picture is clear (see Figure 2 below). Following a motion by J. Michael Horsley, President, Alabama Hospital Association, and seconded by Anna Blair, Policy Analyst, Alabama Arise, the Advisory Commission unanimously approved the Strategic Plan on May 7, 2010. The next step is making it happen.
AHIE will help to create a safer, more efficient and more effective world of health care.
Strategic Plan

1.0 Introduction

The goal of the Alabama Health Information Exchange (AHIE) is to create a statewide system for improving the authorized access to electronic health information. The use of a secure statewide information exchange can offer necessary electronic health information to practitioners providing services at the point of care, improve quality outcomes, enhance patient safety, reduce redundant tests and procedures, lead to a reduction in overall health care costs, while gaining efficiency in public health monitoring and tracking.

Planning for the electronic exchange of health information in Alabama began long before The Health Information Technology for Economic and Clinical Health (HITECH) Act was passed by Congress as part of the American Recovery and Reinvestment (ARRA or the Recovery Act) Act of 2009. Since January 2007, the Alabama Medicaid Agency has exchanged some basic health information through a Medicaid Transformation Grant (MTG) initiative known as Together for Quality. As a result, Alabama has a web-based electronic health record system that compiles claims-based information from both Alabama Medicaid and Blue Cross and Blue Shield of Alabama as well as certain physician-entered clinical information. This information is available through an end use application known at QTool or through uni-directional CCD exchange. Alabama’s current health information technology (HIT) system is a hybrid model, with Medicaid data centralized and other data sources pulled in at the time of query. The lessons learned from this initiative have positioned the state to move forward to develop the statewide policy, governance, technical infrastructure and business practices needed to support both the delivery of health information exchange (HIE) services and providers’ ability to meet meaningful use criteria.

For purposes of this grant and initiative, the state has defined some core terms for consistency and transparency:

- **Alabama Health Information Exchange (AHIE)** is the statewide electronic infrastructure that allows authorized users to securely exchange patient information for the improvement of health in Alabama.

- **Health Information Exchange (HIE)** is the electronic exchange/movement of health-related information among organizations.

- **Health Information Organization (HIO)** is when a variety of stakeholders within a particular geographic area—normally hospitals, primary care physicians, and health plans—form a governing structure to facilitate the exchange of health information. Though certain HIOs may encompass
providers located in a network throughout the state, the HIO would not be considered the statewide exchange.

- **Meaningful Use:** The Recovery Act established programs to provide incentive payments to eligible professionals and eligible hospitals participating in Medicare and Medicaid that adopt and make meaningful use of certified electronic health record (EHR) technology. Based on the proposed rule, "meaningful EHR use" in Stage 1 focuses on the electronic capture and tracking of codified health information, use of data for care coordination purposes, and on reporting of clinical quality measures and health information to CMS.

### 2.0 Alabama’s Approach to Developing Strategic Plan for Health Information Exchange

Governor Bob Riley designated the Alabama Medicaid Agency as the lead agency within Alabama state government responsible for the development and implementation of the State Strategic and Operational Plans. Margaret McKenzie, Policy Analyst, Governor’s Office, has served as the state’s interim HIT Coordinator with a plan to name the State HIT Coordinator by May 1, 2010. To assist the state in the development of the state’s Strategic Plan for HIE, Gov. Bob Riley instituted the Alabama Health Information Exchange Advisory Commission (Advisory Commission). Chaired by State Medicaid Commissioner, Carol Steckel, with State Health Officer, Dr. Don Williamson, as Vice-Chair, representation from key agencies, including the Department of Human Resources, the Department of Mental Health, the Department of Finance, the Department of Senior Services and the Department of Rehabilitation, were named to the Advisory Commission. In addition, the State Board of Health is a member.

The Advisory Commission’s membership also includes chief executive officers of key stakeholder organizations, including the Alabama Hospital Association, Nursing Home Association, Pharmacy Association and Primary Health Association; the Alabama Chapter of the American Academy of Pediatrics and the Academy of Family Practice; and Blue Cross and Blue Shield of Alabama. The Advisory Commission also includes representation from academic programs through the University of Alabama at Birmingham, Auburn University and the University of South Alabama (which is now a REC), as well as the provider, patient and advocacy community.

The Advisory Commission began meeting in January 2010 and will continue to provide direction during the planning and initial implementation of the HIE. Workgroups, corresponding with the five domains recommended by the Office of the National Coordinator for Health Information Technology (ONC) (governance, finance, technical infrastructure, business and technical operations, legal/policy) have also been established to make recommendations to the Advisory
Commission during this process. In addition, due to the critical importance of communications, Alabama added a sixth Marketing and Communications Workgroup to develop a communications strategy.

Currently, Alabama does not have a separate HIT office established to formally support planning and implementation activities as the state is seeking to assure coordination between the Medicaid meaningful use efforts and the State Strategic/Operational Plan efforts. The Alabama Medicaid Agency under the leadership of Commissioner Carol Steckel, along with Margaret McKenzie, interim State HIT Coordinator, and Dr. Don Williamson, State Health Officer and Advisory Commission Vice-Chair, have taken on the leadership roles for the initial phase. The state has been working to create a solid foundation for HIT to ensure that Alabama’s efforts are aligned with the envisioned national health information infrastructure. This will involve leveraging current partnerships and building new ones between all the stakeholders engaged in health care in Alabama, from the largest of nationally recognized hospital systems to the smallest rural primary care practices, and includes participation of consumers and patient advocates. AHIE will be the State’s HIE utility and will work in coordination with the State’s other HIT initiatives, such as the State Medicaid HIT Plan (SMHP), Regional Extension Centers (RECs) and workforce development efforts.

The Alabama SMHP is being created simultaneously for the Strategic and Operational Plans for ONC. HITECH sets forth a plan for advancing the appropriate use of HIT to improve quality of care and establish a foundation for health care reform. HITECH commits more than $48 billion in grants, loans and incentives to encourage meaningful use of HIT in a secure technology environment including an incentive framework for eligible medical providers starting in 2011. Since health care providers who do not have electronic health records meeting the meaningful use definition by 2015 will not only miss out on potential incentive payments, they may face decreases in their Medicare payments. Therefore, the infrastructure the AHIE will provide can and will play a critical role in supporting providers in their endeavors to comply with federal Medicare/Medicaid meaningful use requirements.

In close alignment with the SMHP, the Advisory Commission’s strategy is to provide AHIE as a patient-centered HIE by leveraging the capacity already developed by integrated and/or large health care systems, regional/sub-regional HIOs, and community based entities and providers to connect health care providers to improve the quality and efficiency of health care in Alabama. AHIE must also provide direct connectivity to those providers not part of a health system or regional HIO. Further, AHIE will support public health and vital statistics data needs.

The AHIE will provide a necessary foundation for health care facilities and providers to eventually exchange health care information with labs, pharmacies
and other providers. Absent a functioning statewide information exchange, the ability for providers to benefit from the federal incentive funding will be limited. Therefore, it is critical that Alabama move forward expeditiously to put AHIE in place as soon as is reasonably possible.

2.1 Strategic Plan Purpose

Alabama’s Strategic Plan responds to the requirements outlined by ONC’s State Health Exchange Cooperative Agreement Program and to the needs identified by the state in its initial planning process for AHIE. This Strategic Plan provides the foundation for the Operational Plan that will describe the set of activities essential for the design, development and implementation of a statewide HIE and seek to answer the questions identified in the Strategic Plan. A core principal of the state HIE is to support and enable Alabama’s eligible Medicaid and Medicare providers to exchange information in a meaningful way and receive the maximum incentive reimbursement, while avoiding future Medicare reimbursement penalties. The strategic planning efforts envision the completion of the AHIE Operational Plan July 2010.

2.2 Strategic Plan Outline

The Strategic Plan is presented using the following outline:

- **Introduction**

- **Alabama’s Approach to Developing Strategic Plan for Health Information Exchange**, which addresses the Strategic Plan purpose, outline, methodologies and timelines.

- **Why Alabama Health Information Exchange (AHIE) Matters**

- **Environmental Scan of Where Alabama is Today**, which describes AHIE’s current HIT and HIE environment and summarizes the primary challenges facing AHIE.

- **AHIE Mission, Vision and Strategic Goals**, which summarizes AHIE’s overarching mission, vision, strategic goals, AHIE keys to success and strategic imperatives,

- **The Five Domains Plus One: Governance, Finance, Technical Infrastructure, Business and Technical Operations, Legal/Policy and Communication and Marketing**, which present a more detailed description of the current-state, strategic initiatives and recommendations for each of the ONC’s five HIE domain plus one added by Alabama that were addressed by the Commission workgroups.
2.3 Methodologies Employed

To determine an appropriate strategy for AHIE, a five-step methodology was employed. The first critical step was to focus on establishing an Alabama specific framework organized around the definition and scope of the five ONC HIE domains (Governance; Finance; Technical Infrastructure; Business and Technical Operations; and Legal/policy) plus one Alabama specific HIE domain, which was added because of the significance of the area.

The Five Step Methodology includes:

- **Domains**: Defining ONC’s five domains plus the one Alabama specific domain
- **“As Is”**: Understanding current state capabilities, strengths and initiatives: environmental scan to determine “as is” for both State HIE and meaningful use
- **“To Be”**: Through stakeholder involvement, establishing the future “to be” for the state for HIE and support to meaningful use
- **“Gap Analysis”**: Analyzing the gaps between the state’s vision and the current environment
- **“Roadmap”**: Documenting the roadmap through the proposed Strategic Plan and Operational Plan for reaching the proposed “to be”.

Based upon this HIE domain framework, the next key steps were to identify the current capabilities that can be leveraged and the existing gaps and challenges that must be addressed to move forward with AHIE. The next steps consisted of defining a set of alternatives for closing the gaps in each domain and documenting the potential strategies and next steps to meet the challenges and fill the gaps. The outcome of this work is this Strategic Plan.

2.4 Timelines
2.4.1 Strategic Plan/Operational Plan Timeline

May 2010: HIT Coordinator Named/Appointed
May 7, 2010: Advisory Commission Approval of Strategic Plan
Week of May 17th: Workgroup Meetings Re convene for development of Operational Plan
Mid-May: ITB/RFP Process to Obtain Additional Vendor/Functionality Information

2.4.2 SMHP Plan Timeline

May 14, 2010: Environmental Scan Report
June 14, 2010: Operational Plan Draft Report for Review by Advisory Commission
June 23, 2010: SMHP Submitted to CMS

2.4.3 Infrastructure/meaningful Use Timeline

Eligible Providers:
1st Year: Jan. 1, 2011 (90 days prior – Oct. 1, 2010)
2nd Year: Jan. 1, 2012 (quality measures – Oct. 1, 2011)

Eligible Hospitals:
1st Year: Oct. 1, 2010 (90 days prior – July 1, 2010)

NOTE: Timeline based on hospitals being able to meet meaningful use quality reporting criteria July 1, 2011; system needs to be operational 90 days prior

2.4.4 HIE Infrastructure Timeline (Proposed)

June 2010: HIE System Features/Design Finalized
June 2010: HIE ITB/RFP Released
July 2010: HIE Bids Due
August 2010: Beta Sites Identified and Contracted
August 2010: HIE Evaluations Complete
September 2010: HIE Contract Review Committee
September 2010: HIE Contract Begins
March 2011: HIE Operational Level One (RLS, MPI, Provider Index, Messaging)
2.4.5 Meaningful Use Timeline (dependent on CMS Final Regulations)

July 2010: Provider Registration System
October 2010: Attestation System

3.0 Why Alabama Health Information Exchange (AHIE) Matters

The AHIE has the potential to significantly improve the quality and efficiency of care within and inter-state by providing the mechanism for providers, when appropriate and necessary, to access critical information about a patient when health care practitioners most need it -- at the point of care.

The Advisory Commission has identified key user stories that are dependent on and demand the use of HIT to help them define, design and implement to meet the most critical needs of providers and patients. For example, one use case addresses how a primary care physician handles a referral of a patient with shortness of breath to a cardiologist.

Using capabilities provided by the AHIE as currently proposed, specialists over time will be able to view health history, recent lab and imaging results, hospital records, medications prescribed and other key information about the patient. This will reduce the need for duplicate tests and provide information needed to avoid harmful drug interactions and ensure that all drugs prescribed are needed.

The AHIE will also provide the infrastructure to reduce the administrative burden imposed on health care practitioners, hospitals, nursing homes and laboratories by state and federal reporting requirements. State and federal agencies currently require health care institutions to submit a myriad of public health surveillance information, health care quality and cost data. Health care providers must enter the required information into seven or more different applications. The desire is through wider adoption of EHRs by practitioners and health care facilities and the ability to move information through the AHIE to public health agencies, reporting will be simpler and efficient.

4.0 Environmental Scan of Where Alabama is Today

4.1 Health Information Technology (HIT) Adoption SCAN
While initial indicators show hospitals and primary care providers are increasingly using health information systems all across Alabama to provide a strong foundation for HIE readiness, the Alabama specific environmental scan will not be completed and analyzed until late May, 2010. For the Strategic Planning process, the Advisory Commission collected data from various sources to provide the current baseline information on EHR adoption and use, interoperability, and HIOs in Alabama, including Alabama specific information gathered through the American Hospital Association (AHA) national survey, collection of information from subject matter experts, and data from various state associations.

Alabama has a number of health system or hospital enterprise networks across the state that exchange health information. Planning efforts are also underway for at least one HIO. The decision to date has been to connect with HIOs and networks to avoid duplication, implement further, faster, and reduce unnecessary additional connectivity costs.

The state itself is a major driver on the health information highway as a purchaser (Medicaid and Children’s Health Insurance program (CHIP), regulator (Medicaid, CHIP, insurance and tax related to “entities”, privacy, security, etc.), provider (Medicaid, CHIP, Medicare and private insurance coverage) and government “leader” (statewide HIT Strategic Plan). The state as a driver of HIE carries major implications for policy decisions, potential state legislative action, budget considerations, regulation development and implementation, policies and procedures, procurement, reporting requirements (federal and state), and information technology at multiple state agencies and facilities to fully utilize the options available to states, providers, and consumers to address quality, safety and administrative efficiencies.

The Advisory Commission used information derived from hospital data from a 2009 survey of Alabama hospital data which was a part of a larger national survey of the AHA. The findings are presented below.

4.2 HIT Adoption in Alabama’s Hospitals and Health Systems

Health information exchange development is already under way in Alabama with a number of initiatives focusing on developing HIE or HIE-like capacity. Current information exchanges at least demonstrate the ability and interest for health information data sharing, if not full HIE capacity. There have been efforts in Alabama to develop additional HIOs with mixed success and important lessons learned for the AHIE. However to date, there is one functioning regional HIO. It will be important for the AHIE to leverage all of these efforts to ensure that the statewide infrastructure is able to benefit from the work completed thus far and draw from the strong regional character of health care in Alabama.
The exchange of health information is becoming a well-established part of the Alabama health care community’s information management strategies. The 2009 AHA survey investigated how hospitals and health systems were utilizing information/data sharing. This survey found that a number of organizations were starting to develop regional information sharing projects, often based on specific patient data types.

Based on the data from the survey, the number of responding hospitals within the state that have a computerized system which allows for electronic clinical documentation ranged significantly. Most either had the capability across all hospital units, or had the interest but not the resources to consider implementation, which makes resources a major consideration for the state in working with the hospital providers. Physician notes were the least likely to be captured and managed through a computerized system, while patient demographics, medication lists, lab and consultant reports, and radiology reports and images were most likely implemented across all units. To a degree this validates the viability of electronic data sources for medication lists, lab and radiology reports and patient demographics, which will be important for both AHIE and providers’ access to meaningful use incentives. However, the variance between hospitals is not minimal.

Another area which may be of less significance in relationship to design and development of the AHIE, but very important when determining readiness of eligible hospitals for meaningful use incentives is the use of Computerized Provider Order Entry (CPOE). Per the following graph, Alabama hospitals vary in CPOE capability as well, but the vast majority indicated they were considering implementation but did not have the resources. A significant amount of hospitals indicated they did not have CPOE in place and were not considering it. Almost
the opposite is true, however, when it comes to the use of decision

support systems. Very few hospitals indicated that they did not either have
decision support in place or were not considering implementing it. Most either
had it fully implemented across all units or did not have the resources but were
considering implementation. Almost all hospitals focused on drug related alerts
with less than half having clinical guidelines fully implemented across all units.
Another area of interest because of the patient safety factors and the success
found by the VA system is the use of bar coding.

Again, not a factor for the AHIE, but of interest in understanding the priorities and
environment in which AHIE decisions are being made, most Alabama hospitals
focused on bar coding in context of patient identification and laboratory
specimens rather than pharmaceuticals. Hospital provider interest is not
necessarily low, but resources remain an issue from their perspective. The
responses to the survey related to telemedicine, radio frequency ID and
physician use of a personal data system indicate low engagement in these areas,
making them a low priority for the initial phase of the AHIE.
In relation to supporting meaningful use, the majority of the responding hospitals indicated that their electronic systems establish a current medication list upon admission, track when the patient is in the hospital and provide the updated list upon discharge; however, when it comes to automatically extracting data from EMRs to report Hospital Alliance quality measures, most respondents indicated that they did not have that particular capacity. Another requirement for meaningful use is the use of a certified EHR system and although the regulation is not final on who will be the interim certification body, the fact that about a third of the reporting hospitals are already certified by the Certification Commission for Health Information Technology (CCHIT) is promising. Unfortunately the number of hospitals that said they were not certified or did not know if they were certified were split fairly equally, identifying another focus area for the Regional Extension Center in Alabama and the operational planning for the AHIE.

One of the areas of major discussion during the strategic planning phase was the identification and role of regional arrangements to share electronic patient level clinical data through an HIE, such as a HIO. The survey results show that of those hospitals responding only eight actively exchange data through any regional arrangements; eleven participate but do not exchange data and the vast majority (sixty-one) do not participate in any regional arrangements for HIE. For those hospitals that exchanged patient data, most exchanged within their hospital system and not with other entities within their local area.

These survey results assisted the Advisory Commission in making their technical and business operations as well as technical infrastructure recommendations to allow for, but not depend on HIOs within the state, acknowledging the efficiency value of the hospital system exchange structures in the design, but not depending on community wide local infrastructure.
The benefits of the AHA survey are three fold. The survey: 1) provides a baseline for the state, 2) will be redone on an ongoing basis by AHA so the trending over time will be able to be tracked, and 3) is being done in other states, so standardization and comparability across states, particularly border States, will be beneficial to Alabama.

4.3 2010 Alabama Electronic Health Information Exchange and Capability to Participate in Medicare or Medicaid “Meaningful Use” Incentives Survey

The results of the Alabama specific survey will be used to update the Strategic Planning process and provide further clarity as the state moves into the Operational Planning process. The Alabama specific survey was structured based on input from the workgroups and focuses on the adoption of HIT and the meaningful use of such technology. All of the professional and provider association members of the Advisory Commission and workgroups assisted in contacting their members to ensure a good response and the survey tool was beta tested with a subset of providers.

An e-mail was sent to each provider by their state organization or directly by the Medicaid Agency indicating that in order for the Alabama Medicaid Agency to obtain federal funding to provide financial incentives for the meaningful use the state needed to conduct a comprehensive environmental scan. The providers were informed that the questions in the environmental scan are designed to include required information such as providers' movement toward implementation of electronic health records, as well as their ability to become meaningful users of certified HIT. Each provider practice was asked to assign one person to click on a link to SurveyMonkey and complete the online questionnaire, answering the survey on behalf of all providers in the practice, as opposed to one survey per provider. Respondents were assured that no provider information would be released; however, providers did have the option to choose to include the name of their practice so that, if needed, the state or REC could follow up to assess their needs as the year progresses.
The survey requested responses related to tasks that the provider or his/her staff currently use computers for within their practice, including checking insurance, filing claims, providing summary care information, and e-prescribing. The questions also query whether providers are currently using computer order entry and are they sharing clinical data with other health care organizations. Since many providers have limited electronic information, questions were also posed regarding the use of paper.

Providers were asked about patient access to their information, tracking of patient consents and what capabilities the providers would like to see included in the AHIE to help the Advisory Commission prioritize which functionalities to activate first. Providers were also queried regarding their use internal to their practice of an EMR in order to assess the availability of specific data elements electronically and their use of an EHR, defined as an electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization, in order to establish an Alabama statewide baseline. Because the implementation of 5010 and ICD-10 will happen simultaneously to the HIE activities, questions related to readiness to implement 5010 and ICD-10 were also asked.

As a result of using the SurveyMonkey web based tool, the data will be transformed into useful, actionable information fairly easily. In an effort to eliminate any barriers to response, the Advisory Commission also offered a paper survey option for providers who do not have web access or were not comfortable using it. The Advisory Commission hopes to use the information from the survey, including the barriers identified in the results, to create the state baseline, identify opportunities for REC technical assistance, and to assure that the scope of work for the AHIE vendor targets those areas of most importance to the providers.

4.4 Coordination with State and Federal Programs

There are numerous programs being conducted with State and/or Federal funds within the state of Alabama. A very conscious effort is being made to identify and align HIE activities with these programs to eliminate redundant efforts and maximize financial and resource investments. As indicated earlier, the initial efforts of the Advisory Commission built off and benefited from the years of work of the state and stakeholders under the MTG. The credibility established related to transparency, stakeholder engagement, patient involvement and resource commitment through the MTG process and outcomes, have allowed the participants to build trust in each other and the process to move into uncharted territory.

4.4.1 Coordination with State Programs
As part of the environmental scan, state agencies were contacted to obtain their specific input into the State Strategic Plan process. Since the relevant state agencies are active participants on the Advisory Commission, no new insights were gathered, but the process validated the information from the state government perspective.

- **Department of Public Health:** The Department of Public Health runs the county health departments in 65 of the 67 counties in Alabama. These local agencies have pieces of EMRs but not complete ones. (The two counties that operate independently, Jefferson and Mobile, do have EMRs) The Department is looking for assistance to adopt EMRs and EHRs and hopes that the development of AHIE and meaningful use activities will provide the support needed. The local agencies concentrate the care provided in a few areas including family planning, WIC, and home health. Statewide the Department has 1 million family planning visits per year, and it is the largest Medicaid Home Health Agency in the state. The Department provides almost no primary care outside of Jefferson and Mobile counties.

  The Department’s interest in development of the AHIE is to improve quality and reduce costs. The Department believes the AHIE would greatly improve its disease surveillance capacity. The Department also runs a large clinical laboratory that processes specimens for newborn screening, disease control activities, family planning and other public health needs. In addition, it is well on its way to having a modern laboratory information system. It envisions this becoming a part of the AHIE. This would greatly assist epidemiological studies.

  The Department also maintains a claims-based, immunization registry that is on line and was recently upgraded. This immunization registry could interface with the new AHIE. The Department also participates in case management systems with the Medicaid Agency. There is strong evidence that women who receive case management services while participating in a family planning program are less likely to have an unplanned pregnancy. The case management system needs to be integrated into the AHIE to gain the full benefit of the program.

- **Department of Mental Health:** The Department of Mental Health is both a provider and a payor. The Department runs seven state institutions—six for mental health and one for the intellectually disabled. In addition, the department contracts with providers to provide mental health services in the community. Currently, the institutions do not use EHRs. The Department believes that the implementation of the EHR will help facilitate the adoption of EHR in the institutions and will move community providers toward electronic records. Currently, only about 20 contracted providers use EHRs
In addition, the Department has some electronic systems in place that may tie into the AHIE over time. First, the department has an e-pharmacy system for its institutions to manage and track drug ordering and distribution. Second, the department runs two web-based systems that providers use to submit claims that are subsequently submitted to Medicaid for payment. There is some clinical information on this system. Third, the state institutions have electronic clinical records system. Fourth, the state has a case management system that is currently base on PCs, but they are moving towards making it a web-based system in the future. All of these systems could interact with the AHIE in the future.

- **Department of Rehabilitation Services:** The Department of Rehabilitation Services (ADRS) has 15 clinics throughout the state that provide rehabilitative care to children. These clinics provide services to children with disabilities and special health care needs, but do not provide primary care. For this reason, ADRS is particularly interested in how the AHIE will make information and services provided to these children available to the clinics. If a child they serve is admitted to a hospital over a weekend, the clinic would not be aware of it. Checking on any medications that have been prescribed to this population is also very important to the ADRS clinics.

  Currently, ADRS' clinics do not use EMRs or EHRs. However, some of the physicians who work in the clinics are interested; particularly those physicians based in the UAB and USA systems, where they are already using EHRs.

- **Department of Senior Services:** The Department of Senior Services administers the state Elderly and Disable Waiver. The AHIE may be of help in operations of the waiver in two ways at some time in the future. First, nurses are responsible for conducting functional assessments of individuals and determining whether they will be enrolled in the waiver. Physician progress notes are often used to assess an individual’s level of function. The Department hopes that physician progress notes will become part of the AHIE in the future. In addition, physicians’ medical orders may be used as part of the functional assessment so their availability through the AHIE would also be a benefit to the Department’s operations.

- **Department of Human Resources:** The Department of Finance is leading a project to establish “MyAlabama.com.” This website is intended to provide a single point of entry to individuals and families seeking benefits from four different programs: Medicaid, CHIP, food assistance, and unemployment benefits. The new website is scheduled to be up and running by the fall of 2010.
The State agency contacts included Gary Parker, Department of Mental Health; Karen Taylor, Department of Senior Services; Wanda Williams, Department of Rehabilitation Services; Kathy Vincent, Department of Public Health, and Terrie Reid, Department of Human Resources.

4.4.2 Coordination of Medicare and Federally Funded, State-based Programs

The Advisory Commission has plans to begin conversations with Medicare as the inclusion of Medicare data in the AHIE has been identified as a critical success factor. As a part of the interviews with the state agencies and discussions during the Strategic Planning process at the Advisory Commission and workgroups, the impact to and the opportunities created for other federally-funded, state programs through the AHIE were discussed. Some programs may have a more initial correlation, such as the State Office of Rural Health Policy (HRSA), while others, such as Maternal and Child Health State Systems Development Initiative programs (HRSA), may be more long-term.

The Advisory Commission has not made a decision at this time regarding whether to exchange information with federal health care providers including but not limited to Veterans Affairs (VA), Department of Defense (DoD) and Indian Health Services (IHS) in the initial implementation phase. However, future plans to incorporate connectivity to such federal entities require that they must sign an agreement with NHIN in order to be able to exchange data with federal agencies. Plans are to pursue such an agreement during the operational and implementation phases.

4.4.3 Participation of Other ARRA Programs

The state of Alabama has been extremely fortunate to have been awarded multiple ARRA grants in addition to the State HIE Grant, including:

- **Alabama Regional Extension Center**: On April 6, 2010, the University of South Alabama, Center for Strategic Health Services in Mobile was awarded a RECs cooperative agreement of $7.5 million. The Health Information Technology Extension Program (Regional Extension Program-REC) will provide technical assistance to support and accelerate health care providers’ efforts to engage in the exchange of health information. Dr. Dan Roach, from the University of South Alabama is a member of the Advisory Commission and has played a significant leadership role on the technical infrastructure and technical and business operations workgroups to assure coordination of efforts.
• **Broadband Technology Opportunities Program:** The Department of Commerce’s National Telecommunications and Information Administration (NTIA) awarded Alabama a grant to fund broadband mapping and planning under NTIA’s State Broadband Data and Development Grant Program. The award was made to the Alabama Department of Economic and Community Affairs (ADECA) for approximately $1.4 million for broadband data collection and mapping activities over a two-year period and approximately $463,000 for broadband planning activities over a two-year period, bringing the total grant award to almost $1.9 million. ADECA is the designated entity for the State of Alabama.

• **Curriculum Development Centers Program:** As a component of the Workforce Program, established under the HITECH Act of ARRA, the Curriculum Development Centers program provide $10 million in grants to institutions of higher education (or consortia thereof) to support HIT curriculum development. ONC awarded five grants in April 2010 to support curriculum development to enhance programs of workforce training primarily at the community college level. The University of Alabama at Birmingham was awarded $1,820,000.

• **Health Center ARRA Capital Improvement Program Grant:** 15 Alabama Health Center Grantees were awarded a total of $13,956,035 through the Recovery Act Capital Improvement Program (CIP) grants to support the construction, repair and renovation, some who will use the funds to purchase new equipment or HIT systems and will adopt and expand the use of electronic health records.

• **Beacon Community Program (BCP) and Supporting Technical Assistance:** Although an application was submitted for consideration from Alabama, the site was not selected.

### 4.5 Environmental Scan Summary

**HIT Adoption:** The development of EMR/EHR technologies in Alabama has made good progress in recent years especially in hospitals. There is however, significant work to be done to accelerate adoption across all providers especially given the infrastructure challenges in the State. Health information exchanges and data sharing projects are occurring in Alabama particularly within larger health systems.

**Coordination with State and Federal Programs:** Alabama is committed to continuing to work on coordination with Medicare and other relevant federally funded, state based programs including those mentioned previously as well as the Epidemiology and Laboratory Capacity Cooperative Agreement Program (CDC), Assistance for Integrating the Long-Term Care Population into State Grants to Promote Health IT Implementation (CMS/ASPE), HIV Care Grant
Program Part B States/Territories Formula and Supplemental Awards/AIDS Drug Assistance Program Formula and Supplemental Awards (HRSA), State Offices of Primary Care (HRSA), State Mental Health Data Infrastructure Grants for Quality Improvement (SAMHSA), State Medicaid/CHIP Programs, IHS and tribal activity, and Emergency Medical Services for Children Program (HRSA). The Advisory Commission will address the “how” in the Operational Plan.

As the Medicaid Director is the Chair of the Advisory Commission, coordination with the Medicaid SMHP, environmental scan and Medicaid and CHIP policy development has been on the forefront of each policy and implementation decision point. In addition, as the State Health Officer is the Vice-Chair of the Advisory Commission, data sharing and registry projects are part of the overall HIE strategy, even if they may not be implemented in the initial phase.

Coordination with other ARRA programs: Coordination with Medicaid and ONC various grant and cooperative agreements has been a core principal of Alabama’s HIE effort. In addition, as described above, key personnel overlap between efforts related to Medicaid MTG (QTool), MITA Self-Assessment (Medicaid Agency), Broadband (ADECA), and REC (University of Alabama). Coordination have been discussed in the context of how technical assistance will be provided to health care providers, how trained professionals from workforce development programs will be utilized to support statewide HIE, and how plans to expand access to broadband will inform State Strategic and Operational Plans. In order to improve both state and national coordination, Alabama participates in many of the National Governor Association (NGA), Southern Governor Association and National Association for State Medicaid (NASMD) and other national activities in a leadership role, including the following:

- **State Level HIE Consensus Project:** Advisory Commission Chair, Carol Steckel, the HIT Coordinator, Margaret McKenzie, along with other members of the Advisory Commission have participated in national meetings sponsored by ONC to gain knowledge from ONC and other states in the areas of governance, finance, business operations, monitoring and remediation, and financial sustainability. Participants from the Advisory Commission have accessed webinars.

- **State Alliance for eHealth:** Advisory Commission Chair, Carol Steckel is a member of the State Alliance for e-Health and has played a key role in the discussion of the Medicaid and operational parameters that impacts Alabama and all states working with staff of the NGA Center for Best Practices that support the e-Alliance.

- **State Health Policy Consortium:** Privacy and security are significant consumer and provider perceived issues and have the potential to de-rail EHR implementation so Alabama has participated in the HISPC effort through the various stages.
• **NASMD Multi-State Collaborative:** Advisory Commission Chair Carol Steckel is Chair of the NASMD Multi-State Collaborative, which was initiated in response to state Medicaid agencies seeking to work across state lines on MTG HIT initiatives. Through web-based learning opportunities, states continue to work with CMS, HRSA, ARHQ, ONC to efficiently and effectively address activities from a Medicaid perspective related to the exchange of health information and meaningful use of certified EHRs.

• **AHRQ Medicaid Medical Directors Learning Network:** Alabama’s Medicaid Medical Directors, Dr. Robert Moon and Dr. Mary McIntyre, both AHIE workgroup members, are an active participants in the national learning network which provides a forum for clinical leaders of the State Medicaid programs to discuss their most pressing needs as policymakers and to help them find and use relevant AHRQ products and related evidence to address these concerns. The focus of their meeting in Arizona in April was the role of Medicaid in the State Strategic/Operational Plans. Dr. Moon facilitated the discussion.

### 5.0 AHIE Mission, Vision and Strategic Goals

#### 5.1 Mission

The mission of the AHIE is to improve health care quality and efficiency of health care delivery in the state of Alabama. This will be accomplished through the AHIE by facilitating the meaningful adoption of HIT and the secure exchange of health information.

#### 5.2 Vision

The vision for the AHIE is to strengthen Alabama’s health care system through the timely, secure and authorized exchange of patient health information among health care providers that results in multiple views but one longitudinal patient record. The exchange of health information through the AHIE will support patient-centered health care and continuous improvements in access, quality, outcomes and efficiency of care.

#### 5.3 Strategic Goals in Support of the Mission and Vision

To achieve the mission and vision of AHIE, the Advisory Committee has established the following goals.
• Create immediate access to critical health information for patients, providers and payors to ensure health information is available to health care providers at the point of care for all patients;

• Facilitate administrative efficiencies and clinical effectiveness, including reduction of medical errors, avoidance of duplicative procedures and better coordination of care by linking the full continuum of providers — public and private, physicians, clinics, labs and medical facilities;

• Support the transformation of health care delivery to a quality patient-centered model that engages and educates consumers and providers about the benefits of HIE, and ensures knowledge about privacy rights and protections;

• Create an integrated governance structure for the AHIE that includes a role for key community stakeholders with statewide collaborative capabilities in order to provide the highest functional exchange at the lowest cost;

• Support the meaningful use of EHRs throughout the State and facilitate health care providers’ ability to qualify for Medicare and Medicaid incentive payments by aligning the Strategic and Operational Plans with the SMHP, and;

• Assure inter- as well as intra-state interoperability through the development of an enterprise approach for Alabama that is aligned with the National Health Information Technology Network (NHIN) guidelines.

In order to achieve these goals, the Advisory Commission recognizes that it is vital to support widespread adoption of HIT and align its HIE planning, priorities and implementation efforts with the current federal definition of the meaningful use of HIT. It will be important to ensure that eligible providers are able to demonstrate meaningful use and are positioned to receive the maximum incentive reimbursement and avoid future reimbursement penalties. The Advisory Commission will keep its plans and priorities consistent with and complementary to the Medicaid and Medicare plans for the implementation of meaningful use as they are developed.

5.4 AHIE Keys to Success

One of the critical outcomes for the state, federal government and all stakeholders is “success” in reaching one longitudinal patient record. One of the critical factors in reaching “success” is defining it. The approach the Advisory Commission has taken to defining “success” has been to establish key principles, align them with their goals, and start to thinking about defining potential
performance metrics that will allow the state to validated results as illustrated in Figure 3.

Figure 3: Defining Success

5.5 Strategic Imperatives

The following strategic imperatives, outlined in Table 4, were identified for each of the five ONC HIE domains plus the one Alabama specific domain. To aid in the planning for the capacity development and use of the HIE among all health care providers in Alabama, the AHIE will enable meaningful use as an imperative along with these other strategic imperatives.
## Table 4
### Domains and Strategic Imperatives

<table>
<thead>
<tr>
<th>Domain</th>
<th>Strategic Imperatives</th>
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| Governance   | • Identify permanent State HIT Coordinator by May 2010.  
• Establish an open, transparent and accountable governance structure and related processes that achieves stakeholder collaboration, buy-in and trust
• Ensure private and public sector participation and partnership and with clearly defined and agreed roles  
• Develop a solid value proposition for stakeholders to encourage active HIE participation/adoption and long term sustainability  
• Establish the mechanisms and structure to provide oversight and accountability of AHIE from both regulatory and operational perspectives |
| Finance      | • Assure sufficient state match for federal ARRA funding for initial planning and implementation costs for AHIE within limitations of state budgetary constraints  
• Create a sustainable business model including public/private financing mechanisms for AHIE  
• Minimize the impact of AHIE user costs for the provider and payer communities within the state and federal regulatory requirements, including Medicaid and Medicare  
• Ensure fair distribution and equitable allocation of costs for the support of AHIE  
• Leverage existing sources of funding wherever possible (i.e., Public Health Programs, Centers for Medicare and Medicaid Services) for financing AHIE  
• Define the business case for AHIE, including the expected return on investment, business value and potential cost savings  
• Establish mechanisms and processes to effectively manage the funding and provide for the required reporting and accountability necessary to implement and manage AHIE |
| Domain                      | Strategic Imperatives                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------##############################################################################|
| **Technical Infrastructure**| • Leverage existing State, statewide and regional level efforts and resources where possible, such as master patient/client index, existing public health registries, reporting systems, HIOs, Medicaid HIT efforts and the Medicaid Management Information system (MMIS)  
• Identify HIE mechanisms/solutions that will ultimately enable full interoperability and exchange of health information consistent with ONC strategic planning  
• Adopt a technical architecture for AHIE best suited to the state, local and regional characteristics of Alabama, including working with border States  
• Align with NHIN                                                                                                                                                                                                                                                                                                                                 |
| **Business and Technical Operations** | • Ensure adequate state staffing and infrastructure that allows for flexibility, transparency, regulatory oversight and operational management  
• Establish the mechanisms and processes for coordinating & aligning stakeholder efforts to incrementally meet meaningful use requirements, Medicaid, Medicare and public health requirements  
• Develop secure, authorized approaches to using AHIE-accessible resources for research and analytics to assist in efforts to promote improved health outcomes across Alabama  
• Coordinate with the Alabama Regional Extension Center (PaREC) program to support the provision of technical assistance to HIOs, providers and others developing HIT capacity within the state                                                                                                                                                                                                 |
| **Legal/Policy**            | • Identify and harmonize federal and state legal and policy requirements that will enable appropriate HIE services  
• Create the legal framework for Patient and Provider participation in HIE  
• Establish a statewide policy framework that allows for incremental and continuous development of AHIE policies  
• Establish oversight and enforcement mechanisms to ensure compliance with HHS adopted standards and all applicable laws and policies for interoperability, privacy and security |
Domain | Strategic Imperatives
--- | ---
Communication and Marketing | - Identify stakeholders and constituencies essential to HIE adoption in Alabama, both in the short-term and long-term
- Analyze stakeholders and constituencies to identify key characteristics, organizational interest in HIE adoption, barriers to successful adoption, and new opportunities for innovation
- Develop strategic communications plans to achieve stakeholder collaboration, buy-in and trust in HIE, integrating core principles of other domains.
- Support and extend the efforts of the five ONC-domain workgroups in Alabama

Engage and inform state opinion leaders on HIE, facilitate consumer input and monitor public opinion for issues to be addressed

6.0 Stakeholder Engagement

A core principle for Alabama was the engagement of a broad set of stakeholders in developing the Strategic Plan for the HIE. The state has sought to gain buy-in from stakeholders and the community by operating in a transparent way that builds off the involvement of providers, consumers, payors and purchasers, public and private. This process was used in the Medicaid Transformation Grant and has proven to be a successful tool. The Advisory Commission, which is responsible for providing policy recommendations related to achieving the state’s HIE vision to the Governor, launched workgroups charged with supporting the development and implementation of an Alabama Strategic Plan. In addition to enabling more broad participation by interested stakeholders, the workgroup structure enabled specific expertise to be focused and engaged in addressing issues and overcoming barriers to HIE in Alabama. The workgroups charged with supporting the development and implementation of a strategic plan for HIE aligned the five federal domains required by ONC plus an additional one that the state has identified as critical to success.

7.0 Five Key Domains Plus One

The Strategic Plan describes the content and process of how Alabama will enable health care providers, consumers, insurers and other stakeholders to
exchange health information electronically in a meaningful way addressing the following five key domains plus one identified by Alabama.

### 7.1 Governance

Alabama has been steadily making progress in incorporating HIT into the health care practices to improve the quality of health services for its citizens. In January 2007, Alabama Medicaid Agency put in motion an e-health initiative to improve the patient outcomes for those living in Alabama. The initiative was “Together For Quality”. Alabama Department of Finance is currently developing a web-based customer-centric service application system called Myalabama.com to be release in October 2010. In addition, Alabama has various other HIT projects progressing such as the River Region HIO and development of Regional Extension Center at University of South Alabama CHSI. The success of these e-health initiatives has been based on the collaborative effort from the continued involvement of a broad base of state representatives and community stakeholders.

In January 2010, The Alabama HIE Advisory Commission held its first meeting to initiate the necessary steps to establish the authoritative body for the governance of the statewide HIE. The Advisory Commission formed the Governance workgroup to formulate the recommendations for the governance model that would meet the needs of the state.

Governance for AHIE must be highly transparent and maintain high standards of accountability to ensure that the full network of stakeholders and participants are able to build the vital consensus and trust necessary for this kind of information sharing enterprise. The Advisory Commission is proposing a governance framework to support the development and facilitation of collaboration among all stakeholder groups and to ensure compliance with legal and policy requirements and provide for the required standards of accountability to all Alabamians.

The Advisory Commission reviewed three primary models for a governance structure of a health information exchange. In reviewing the information contained in the 2008 HIE Common Practices Survey conducted by the Healthcare Information and Management Systems Society (HIMSS) coupled with the report entitled “Public Governance Models For A Sustainable Health Information Exchange Industry,” compiled by the University of Massachusetts Medical School Center for Health, Policy, and Research in collaboration with National Opinion Research Center (NORC), the Governance workgroup established a set of guidelines of which to evaluate the various models. The workgroup also studied various governance models that other state’s had already initiated.

In making this governance model recommendation, the Advisory Commission believes the role of state government and its health care agencies are pivotal. The engagement and activation of community stakeholders, including providers
and entities that provide services to consumers and have access to patient data, is also essential to the success of AHIE. In addition, they are equally important partners to the success, implementation, sustainability, and benefits of the HIE. Long-term and perpetual success of the HIE requires participation by each of these organizations, and therefore, a strong collaborative approach is favored.

While the Advisory Commission recognizes that state government can provide the neutral party “trusted agent” leadership in the HIE framework, a key and important component of AHIE governance will be to support working relationships and collaboration between local, regional, and area exchange projects in Alabama. This will require continuing to identify and work closely with stakeholders and community groups that are involved in the development of local HIOs. The governance structure must continuously work to maintain and enhance support for the HIE concept from within the hospital and medical provider community, patient advocacy groups, and most importantly, the patients themselves.

The governing body for the AHIE will also develop collaborative relationships that extend beyond Alabama borders, establish the mechanisms necessary to ensure effective coordination with the Nationwide Health Information Network (NHIN), and define and support HIE collaboration across state lines, specifically where there exists shared populations and health care services.

7.1.1 Alabama Governance Model: Structure

After careful evaluation and productive discussions, the State of Alabama proposes to establish a multi-tiered governance framework beginning with the Alabama Health Care Exchange Operating Commission (Operating Commission) as the public-private collaborative governing body of the AHIE (see Figure 1 below). The Advisory Commission will remain in place until such time as the Operating Commission is authorized and established. The establishment of the Alabama HIE Authority will be the sole authoritative and governing body of the Alabama HIE. The Operating Commission will be established with public-private membership as a public utility or a 501(c)(3) non-profit organization or other formal type of government governing board depending on needs at that time. Transition from the Commission will occur when deemed necessary by factors such as, but not limited to, when HIE is funded by less than a pre-determined amount of public funds, and/or when the product and process is stabilized, or when necessary to mitigate risks to the federal and/or state government.

The Operating Commission will have the authority and responsibility for the overall governance, strategic policy direction, and operation of the State HIE. The Operating Commission will determine the technical and business plan as well as all legal policies and the infrastructure that will constitute management of the statewide implementation and operation of the HIE. The Operating Commission
will be a multi-disciplinary, membership comprised of public and private representatives.

The governance model for the AHIE as currently envisioned by the Advisory Commission is as follows in Figure 1.

**Figure 1: Governance**

```
Governor

Statewide Exchange Operating Commission aka HIE Advisory Commission
  - Comprised of private/public stakeholders
  - Authorized to operate, build and maintain the statewide sponsored HIE
  - Implements business plan, routine meetings with HIT Coordinator
  - Develops Statewide Strategic and Operational Plans
  - Creates initial set of exchange rules

State HIT Coordinator
  - Implements Strategic/Operational Plans
  - Oversees Operation of Alabama’s HIE Statewide Exchange
  - Responsible for coordination with other statewide HIT Initiatives
  - Ensures that “individual” HIT initiatives mesh with the larger statewide vision
  - Coordinates REC efforts to support the statewide vision & implementation of meaningful use
  - Responsible for managing the ONC and other related HIT funding

Administration Division
  - A division of the HIT Office
  - Project Manager
  - Responsibility for budget, reporting and financing
  - Coordination of outreach functions about the exchange

HIE Operations
  - A division of the HIT Office
  - IT based project manager
  - Responsible for compliance of technology/operating standards including privacy/security issues
  - Contractual oversight of operating exchange, including system design, implementation, testing
  - Oversight of connectivity needs
  - Coordinating and oversight of other agencies e-health projects to HIE compatibility

Meaningful Use Incentive Program
  - Assigned from Medicaid
  - Project Manager
  - Responsibility for development, implementation and coordination of incentive payment program
  - Coordination of outreach functions to educate providers re meaningful use

Domain Workgroups
  1. Volunteer representatives.
  2. Each Domain Workgroup led by Co-Chairs
  3. Discuss issues and make recommendations to the respective HIT Divisions.
```
The state will have an Alabama HIT Office that will be responsible for the daily operation of the AHIE as well as implementing the strategic and business plans outlined by the Operating Commission. The HIT Office will be directed by the State HIT Coordinator. The State HIT Coordinator and staff, as state employees, will administratively report to the Governor but will functionally report directly to the Operating Commission. Until alternative and appropriate housing is identified, the State HIT Coordinator and staff will be a part of the Medicaid Agency. The Operating Commission will set policies and have broad authority to make decisions. The placement of this position maximizes resources in that this person will be responsible for coordinating statewide efforts as well as overseeing operation of the exchange. As HIT efforts in the state expand, it may be necessary to re-evaluate the duties and responsibilities of this position.

The HIT Office will also oversee the operations of the three HIT sub-divisions of Administration, Operations, and Meaningful Use Incentive Program. It is envisioned that each of these areas will be staffed with one individual. It may be necessary to have additional staff in HIE Operations due to the anticipated workflow and diversity of duties. The State Strategic/Operational Plans will encompass all areas of HIT within the State and under the responsibility of the HIT Office.

It is anticipated that the HIT Office in handling its responsibilities for compliance of technical/operating standards including privacy/security issues will see to mirror federal requirements. Many of the rules are being decided by the CMS certification requirements and/or existing regulations (e.g. HIPAA). Once decided, the enforcement of the rules will become the responsibility of an existing regulatory authority, e.g. Department of Insurance or Public Health. Additional rules, including the upfront licensing of entities exchanging health information, will be promulgated through the administrative rule making process. There may need to be a distinction as to the types of entities to be governed and licensed.

Decisions that still remain include: state oversight of any organization that exchanges information with the HIE (who, how and under what statutory requirements); operational details, such as procurement specifications and processes, and regulatory oversight of HIOs that don’t participate in the HIE. The next steps include appointment of the HIT Coordinator, development of an operating budget, establishment of the organization and operational space, determination of the “enforcement” state agency and address the work.

This approach mitigates risk to the federal and state government as it allows the effort to move forward using current authority, while more permanent authority can be determined. As the authority for the Advisory Commission is not time limited, the state has the ability to continue to act under its current authority until replaced with a permanent governance structure. In addition, Alabama will retain the current Domain workgroups to maintain the involvement of all the various
stakeholders groups as we proceed to confront issues, adopt strategies, and develop solutions of all e-health challenges in the State of Alabama.

7.1.2 Alabama Governance Model: Membership

The new Operating Commission will be a multi-disciplinary, multi-stakeholder governance model. This will be achieved by the following composition and structure:

- The Operating Commission membership will include the State HIT Coordinator, and a representative group of public and private stakeholders that will be defined when the Commission is established.

- The Operating Commission will manage direct governance and preside over of the Alabama HIT Office. The State HIT Coordinator will be the Director of the state HIT Office and is responsible for the implementation, development, and operation of the HIE. The HIT Coordinator will have routine and periodic meetings with the Operating Commission and report on the activities of the State HIT Office.

- The Administration, HIE Operations, and Meaningful Use sub-divisions will be responsible for carrying out and managing their specific HIE tasks and requirements as described in the overall HIE business plan.

- The Domain workgroups will continue in their function in formulating, developing, and presenting to the HIT Office sub-divisions and the Operating Commission recommendations on issues arising from the various stakeholders.

The Operating Commission will continue to develop and encourage membership from community stakeholders as the breadth and scope to the AHIE progresses and becomes implemented within the state.

7.1.3 Alabama Governance Model: Authority and Decision Making

The AHIE Operating Commission will continue to guide the collaborative effort that identified the needs, priorities, and direction of the Alabama HIE. The Operating Commission will continue to provide a collaborative decision making model for participation, policy, priorities, and enforcement of the State HIE. The Operating Commission will hold regular meetings to engage the membership to make decisions regarding the strategies to utilize the advances of HIT. The membership discussions will determine the community priorities which will outline the strategic roadmap for the development of the Operating Commission’s comprehensive business plan. This business plan will serve as a guideline and implementation mechanism for the AHIE. It is expected that the membership of the Operating Commission and the domain workgroups will grow as the implementation of the HIE progresses.
The proposed authorization of the Commission would establish the parameters for the Commission’s accountability in the following four areas:

- **Privacy and Security**: the level of privacy and security appropriate in the electronic HIE infrastructure, data systems, and operators that participate in electronic HIE that aligns with federal standards, including Medicare and Medicaid requirements, and facilitates cross-boarder interstate HIE.

- **Interoperability**: the requirement to exchange data through standardized transactions based on the parameters established by the current Technical Infrastructure workgroup that all participants must adopt and interface using national standards for interoperability as they are established.

- **Fiscal Integrity**: because of the involvement of federal grant and Medicaid and state matching public money used for electronic HIE, the Commission will be accountable for appropriate spending in a transparent manner.

- **Universal Access**: Alabama has a constitutional role to represent all citizens, therefore, identification of how the model will ensure that all citizens are able to take advantage of the benefits of electronic HIE, especially where public investments are made, must be addressed. Some of the specific state government accountability mechanisms that will be addressed in the Operational Plan in more detail include reporting of the Commission authority into the state government structure (see below for proposed structure), transparency through public recording and open meeting law requirements and compliance with state ethics and finance laws.

Alabama will address, but has not reached that level of detail at this time, specific rules and standards for enforcement, including the potential for administrative remedies, adjudication, mediation, and arbitration. The Commission will seek to be flexible enough to address the rapidly changing electronic HIE environment.

### 7.1.4 Alabama Governance Model: Nationwide Health Information Network Alignment

The Advisory Commission recognizes the following as the identified primary functions for NHIN governance: (1) formulation of the strategic roadmap; (2) development and maintenance of the NHIN policies, procedures, reference materials and support services; (3) implementation of the legal infrastructure and dispute resolution; (4) management and Governance of NHIN participation and support services; and (5) risk management focusing on the confidentiality, privacy and security of information.
7.1.5 Alabama Governance Model: Alabama HIT Coordinator and the HIT Office

The Alabama HIT Coordinator will be appointed by the Governor’s Office and will have the overall responsibility for ensuring that Operating Commission strategic and operational plans shall be implemented. The Coordinator will work to solicit cooperation among state community stakeholders, state agencies, and federal partners as providers migrate to HIE connectivity while in the effort to move providers to meaningful use of electronic health record systems. The Coordinator shall be the primary contact with the Governor’s Office, the Operating Commission, and the Medicaid Agency. The Coordinator will be in a position to drive the integration of initiatives relating to electronic health records. The Coordinator will coordinate cooperation with state agencies engaged in promoting the adoption of state HIT systems and e-health initiatives to insure all AHIE requirements and standards are identified for health information exchange.

The HIT Office will oversee day-to-day operations of the AHIE through the management of the sub-divisions of Administration, HIE Operations, and Meaningful Use. The Administration sub-division will be responsible for the management of the HIE business plan describing the financing and sustainability, marketing and communication, and reporting. The Operations sub-division will be responsible for management of the HIE business plan including compliance of technology, operating standards, contractual oversight of the exchange, connectivity needs and coordination and oversight of other state agencies eHealth activities. The Meaningful Use sub-division will be responsible for the development, implementation and coordination of the meaningful use program and will coordinate outreach activities to educate provider regarding the program. The Alabama HIT Office will also be responsible for coordinating the Alabama HIE alignment with NHIN. A complete listing of the state employee staff located in the HIT Office along with their management positions and descriptions are presented here.

- **State HIT Director:** This position would provide leadership, direction, management and coordination of the State HIT office, in order to ensure timely accurate and complete information and knowledge is available for the provision of health care services and policy decisions. The ultimate goal of the HIT Office is the improvement of the health of Alabama patients using technology as a tool for providing efficient, safe high quality, patient-centered health care services.

- **HIE Project Manager:** The position would coordinate the efforts set forth in the state to develop and implement a statewide health information exchange based on the criteria set forth by the ONC and as further defined by the HIE Advisory Commission and workgroups.
Meaningful Use Project Manager: This position would coordinate the efforts set forth by CMS for the implementation and adoption of MU criteria by eligible providers in the Medicaid system. Decisions will have to be based on the fed regulations governing this program in collaboration with the HIE Commission and workgroups.

Reporting/Accounting Analyst: This position would coordinate the multiple reporting and accounting requirements that must be met through the various funding sources as well as work to identify additional funding opportunities.

7.1.6 Alabama Governance Model: Assuring Accountability and Transparency

A foundational element of the statewide collaboration process is assuring the transparency of the process and the accountability of the Operating Commission to state government and community stakeholders in Alabama. All meetings of the Operating Commission, HIT Office, and Domain workgroups will be open to the public. The meetings notice will be posted to the State HIE website. All Operating Commission members will have to sign a conflict of interest disclosure form, which will be reviewed by Operating Commission’s legal counsel. The Governance workgroup will identify and recommend the standards for public participation at the HIT Office and Domain workgroup meetings.

7.2 Finance

7.2.1 Current-State Assessment

Proposed funding for both the startup and sustainability of the AHIE are dependent on the relative value to the various stakeholders and potential user. To reduce barriers to adoption it is important to fairly distribute the costs among those who benefit from the AHIE. Funding sources and mechanisms may need to change as the AHIE matures to reflect the development of new services and the realization of benefits to the AHIE participants.

The primary funding for the AHIE planning and implementation through FY2010 is the ONC State Health Information AHIE Cooperative Agreement Program with in-kind contributions from the state and stakeholders of their time and meeting space. This funding has provided the support that is critical for the strategic and operational planning for the implementation of the AHIE. While this award is a substantial sum it does not provide adequate funding for the complete implementation of the AHIE and does not address long term sustainability.

Additional funding to build an HIE infrastructure for Medicaid providers will be available through various sources. In addition to direct public funding, the
opportunities for other federal monies and private and philanthropic sectors to contribute either direct or project specific funding will be investigated.

7.2.2 Long-Term Sustainability

To ensure the future effectiveness of the AHIE, a comprehensive business plan will be developed that will include a start-up strategy and provide for long term sustainability with an identified revenue stream.

The business plan will address how the financing mix will adjust over time, especially as ARRA funding winds down, all feasible revenue sources and revenue, and processes for budget monitoring and visibility that are incorporate into the overall spending of the initiative.

7.2.3 Cost Benefit Assessment

Demonstrating the return on investment is necessary to justify ongoing stakeholder investment in the AHIE. The Finance workgroup sought to identify and link specific AHIE services to cost savings. For example, participation in the AHIE that will enable providers to secure incentives and to avoid meaningful use penalties in 2015, which will be a particular benefit for Alabama’s Medicaid and Medicare providers. Further cost benefit analysis will identify and measure as many cost savings as possible, including savings in patient and provider time, administrative costs, and specific areas such as pharmacy or medical testing costs.

7.2.4 Funding Options

Since the state is considering a two-stage approach to governance leading to the creation of the Operating Commission, the Finance workgroup has taken the staged approach into consideration in its deliberations. Long term funding options for AHIE operations currently under consideration include various combinations of legislative action and voluntary participation by stakeholders. These potential revenue sources include new state funding allocations, and/or charges, fees, and payments that may be based on the actual utilization of the AHIE by participants. The funding structure will be developed to encourage, not discourage, as many health providers and organizations as possible to engage the AHIE in the meaningful exchange of clinical data. The funding structure needs to address increases in network participants and increases in the types of functionality requested by the AHIE users over time. In addition, after FY 2010, ONC funds must be matched each year beginning with a rate of $10 federal to $1 state for FY 2011, a rate of $7 federal to $1 state for FY 2012 and a rate of $3 federal to $1 state for FY 2013.

The Advisory Commission and the Finance workgroup have considered payment models that include: subscription payments (under consideration), private/foundation funding (expected to be limited if not connected to actual
operation), state/federal government funding and transaction payments (not considered viable). This state/federal alternative is directly connected to Medicaid’s funding role as the budgetary status of the state is such that “new” state money would be difficult to pursue. Other potential future revenue sources for Alabama’s AHIE that have been considered include payor contributions through either per member/per month, claim assessment, or other value-based reimbursement model and the selling of value-added services through the use of the AHIE.

Each payment model was reviewed in relationship to four core principles: (1) funding dependent on the relative value; (2) costs fairly distributed; (3) flexibility in approach that accommodates changes in funding sources and mechanisms as the exchange matures to reflect the new services and benefits; and (4) funding fully utilizing ONC/ARRA federal financial support.

Once the AHIE is operational it is expected that revenue sources will be evaluated periodically and the formula modified, if necessary, taking into consideration other interdependencies. Further development of a business model addressing start-up strategy, long term sustainability and identified revenue stream, as well as determination of how the financing mix will adjust and react through defined budget processes, will be incorporated into the Operational Plan process. Further market research, details of financial reporting, audit requirements and capacity and identification and implementation of controls will be completed as part of the operational plan process. This is to assure all federal requirements, implementation issues, and fiscal impact on the state, providers and stakeholders’ accommodations have been accounted for. It is the intent of the Commission to fully utilize ONC national technical assistance in this endeavor.

7.3 Technical Infrastructure

7.3.1 Technical Infrastructure Approach

AHIE is envisioned as the connecting network for health information exchange across Alabama and with other states, particularly border States and eventually the NHIN. AHIE will be built on a secure, Internet-based architecture that enables health care data transfer using recognized federal and state health information technology standards and will be able to easily connect with HIOs and individual providers to support the meaningful use of HIT, HIE and EHRs.

The Technical Infrastructure Workgroup has met consistently with the Business and Technical Operations Workgroup to ensure that the business needs and the operational considerations, including legal parameters, were the drivers of the project. The joint meetings also allowed the groups to ensure the technical infrastructure supported the business needs of the HIE keeping the focus on the vision of one longitudinal patient record.
The workgroup has established some working principles for the web-based AHIE: alignment with the NHIN; alignment with the Medicare and Medicaid national HIE (current and evolving) standardization efforts; and utilization of work already completed so local and state resources can be leveraged where possible. All data will be required to be standardized with translation to standardization occurring at the local HIO or provider before it is inputted or pushed through the HIE. In addition, the HIE will comply with the certification standards required by CMS for meaningful use since access to and interchange with Medicare is critical for a unified approach in the state as well as across states. For instance, complying with the NHIN agreements is required in order to exchange data with a federal entity so during the Operational Plan process the state will further research the necessary methodology to pursue such an arrangement.

The Advisory Commission’s approach is to provide a valuable information exchange that will be easy to navigate and timely in its response to queries in order to encourage voluntary participation. To illustrate, it is agreed that the HIE will be a hybrid-model with record locator interfaces, standardization terminology and transitions, and a hub that includes a master provider index repository, master patient indexing, and a data repository that includes some data components. The plan also calls for an operational structure that assures risk mitigation, adequate response time, access, authorization, authentication and back-up security capacity.

To enhance the potential for a successful total solution that would provide access to key clinical data to assist providers in making clinical decisions, the Advisory Commission decided that the preferred approach would include contracting with a primary vendor who could provide the total functionality, potentially utilizing administrative data for pre-population if an evaluation determined it valuable, and beta-testing with a pre-determined set of providers before the statewide exchange goes “live”.

The capacity to host an EMR and to be interoperable with other states as well at the NHIN is under consideration but no final decision has been expressed. Since the technical structure to host an EMR is a capacity that is not core to the function of an HIE, it is being considered as a voluntary option that would be available to providers who do not currently have an EMR. If the HIE could provide a hosted solution without significant cost, as it would enhance the potential for some smaller providers to benefit from meaningful use incentives.

In order to gain national insights into opportunities, options and limitations, the Technical Infrastructure Workgroup took advantage of ONC sponsored technical assistance and had a full day meeting in April, 2010 with Noam Arzt, Ph.D. to work through the explicit components of the technical architecture. Particular attention was given to what functions are needed to form part of the technical infrastructure including stages of implementation. In addition, the workgroup
seeks to utilize existing IT infrastructure and capacity where possible, as much of the core work completed through the MTG and information gained through the Medicaid MITA Self-Assessment has provided a good foundation for the Statewide HIE Planning and Operational activities. For instance, the MITA self-assessment identified and evaluated the inter-relationship of Medicaid to the other state agencies, and therefore, has been incorporated and enhanced through this process.

As an initial introduction to potential vendor solutions, the Advisory Commission sponsored a “vendor day” allowing vendors to present their capabilities with a requirement that each vendor answer five specific questions identified prior to the event. The event was delivered via two options – face-to-face and web – so all interested parties throughout the state could participate.

7.3.2 Technical Infrastructure User Cases

To ensure the Technical Infrastructure Workgroup was focusing their architectural design to support preferred and critical business needs, the Business and Technical Operations Workgroup worked with the Technical Infrastructure Workgroup on a core set of user cases illustrating scenarios such as: (1) multiple referrals of an elderly patient from a primary care provider to a specialist to a hospital emergency room and back; (2) the consolidation of information about care episodes provided at a location other than the office of the primary care physician; (3) the retrieval of images through a common web portal and sent to the viewer’s PACS for incorporation into the patient’s local record; (4) transmission of hospital discharge summary including care plan back to a patient’s primary care provider; (5) the order provider able to receive laboratory results, (6) quality measurement data sent from an EHR-s to a quality improvement organization; and (7) use of EHR to support PQRI.

Through the use case process, the workgroups sought to identify opportunities to avoid duplication of services, facilitate savings across the health care system, drive better decisions at the point of care, enable efficient provider-to-provider communications and track utilization of services.

7.3.3 Technical Functionality

In order to minimize the number of queries, which should be speedy, performed by a user of the system and assure the data is standardized, timely, high quality and assembled into an integrated record across episodes of care, the functionality of the AHIE as currently envisioned is provided in the following table.
<table>
<thead>
<tr>
<th>Required Functions</th>
<th>Additional Capabilities</th>
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<tbody>
<tr>
<td><strong>APPLICATION</strong></td>
<td></td>
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<tr>
<td>Web-based</td>
<td></td>
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<tr>
<td><strong>CORE PLATFORM</strong></td>
<td></td>
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<tr>
<td>Master patient index</td>
<td></td>
</tr>
<tr>
<td>Directories: Provider, facilities, documents</td>
<td></td>
</tr>
<tr>
<td>Connection: capability for secure routing for provider-to-provider messaging, portal access, NHIN gateway services</td>
<td></td>
</tr>
<tr>
<td>Record locator service (RLS)</td>
<td></td>
</tr>
<tr>
<td>Audits / reporting</td>
<td></td>
</tr>
<tr>
<td><strong>PROPOSED CORE DATA ELEMENTS FOR INITIAL PHASE</strong></td>
<td></td>
</tr>
<tr>
<td>Medication history</td>
<td></td>
</tr>
<tr>
<td>Problem list</td>
<td></td>
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<tr>
<td>Allergies</td>
<td></td>
</tr>
<tr>
<td><strong>SUPPORT FUNCTIONS</strong></td>
<td></td>
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<tr>
<td>Shared agreements</td>
<td></td>
</tr>
<tr>
<td>Provider outreach</td>
<td></td>
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<tr>
<td>Technical support</td>
<td></td>
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<tr>
<td>Trust relationships</td>
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</tbody>
</table>

AHIE will support two types of authorized and secure data exchange: Person-to-System and System-to-System.

7.3.4 Technical Implementation

The state will pursue a vendor through an RFP/ITB process and will implement through a staged process. At the present time, the following captures the basic preferences of the workgroup in terms of possible staging:
• **Phase One**: Master Patient Index, Provider Directory, Provider Messaging and Record Locator Service, administrative data, registry of potential data elements such as medication history, problem lists and allergies

• **Phase Two**: Additional data elements from the minimum data set and functionality for quality measurement reporting; implementation of hosted solution

• **Phase Three**: Connect state labs/registries, quality reporting data, utilization information, additional data elements

### 7.3.5 Technical Infrastructure Timeline

The timeline as currently set forth is as follows:

- ITB/RFI Process            May 2010
- HIE system features/design finalized                  June 2010
- ITB/RFP released                   June 2010
- Criteria determined/identification of beta sites August 2010
- Completion of HIE evaluations August 2010
- HIE Contract begins            September 2010
- Beta test with pre-determined group of providers March 2011

### 7.4 Business and Technical Operations

#### 7.4.1 Business and Technical Operations Approach

As stated above, in order to ensure the business needs and workflow demands lead the discussion, the workgroups for Technical Infrastructure and Business and Technical Operations met as a joint group for all the initial meetings. Even when the ONC sponsored technical assistance was provided to the Technical Infrastructure workgroup, all members of the Business and Technical Operations Workgroup were invited and most participated.

While the approach for technical design was “think broadly” and incorporate an expansive infrastructure that will meet the needs of today and tomorrow, the correlating approach for business and technical operations was to implement in a focused/targeted approach. The initial focus of the workgroup centered on what is needed to support providers in obtaining and retaining meaningful use incentives and how the state can carry out oversight, while assuring adequate payment with limited additional burden on providers.

One of the principle strategies for the Business and Technical operations plan design and implementation is for the AHIE to be supportive of, and consistent with, the State Medicaid HIT Plan (SMHP), which is being developed simultaneously. Since the Alabama Medicaid Agency is the lead agency for the
Advisory Commission and is the support infrastructure for the Strategic and Operational Planning process, coordination with the SMHP and the environmental scan required for both the SMHP and the HIE Strategic Plan has been smooth and uneventful. While CMS and ONC have stated that the State Strategic/Operational Plans and the SMHP are “chapters in the same book”, Alabama has treated them as sections in the same chapters assuring that each activity, operational concept and policy is reviewed from both vantage points. This approach has increased the viability of successful and meaningful exchange and use of health information for the delivery of care, consumer engagement and state/federal oversight. With the State Medicaid Commissioner acting as Chair of the Advisory Commission, the possibility of the Medicaid content in the HIE Strategic and Operational Plans not addressing the needs of the Medicaid population and providers became a non-issue. All Medicaid required sign-off was accomplished as part of the formal Strategic and Operational Plan development process.

The AHIE business and technical operations design seeks to maximize existing and future resources, with a plan to start small and then systematically increase functionality as it becomes sustainable. The AHIE will accommodate providers with differing HIT capacities in order to ensure maximization of provider participation, consumer confidence, payer value and thus, long-term sustainability. This will require standardization in connectivity to the HIE, including development of policies and standards that ensure standardization between state system, local exchanges and individual providers. Policies and procedures and actual operations will seek to ease navigation, provide for response timeliness, and assure providers and patients that exchanges are secure and being used for stated purposes.

The AHIE technical and business operations will operationalize the technical infrastructure over time to deliver pertinent information to participants upon demand, including but not limited to, the ability to reconcile patients across all participants (master patient index) and provide a history of visits, provide for exchange of continuity of care document (CCD), provide easily accessible information about evidence-based practices through a clinical support tool for physicians, utilize built-in reminder/alert systems (e.g., patient needs flu shot) and provide information to patients in standard and secure formats.

Efficiencies will be gained as access to key pieces of clinical information results in less duplication, providers without EMRs use the AHIE hosted EMR, the AHIE connects to other state health information exchanges (e.g., vaccination registry) and it becomes the conduit for sending quality information to state and federal government agencies.

It is assured that public health issues, existing initiatives and future plans were adequately addressed and incorporated as the Commission Vice-Chair is the State Health Officer. As a decision maker with a vote, he approved the proposed content of the HIE Strategic Plan as a required sign-off.
The roles and engagement of the other State agencies was an ongoing component of the planning process. State “governance” responsibilities related to monitoring and plans for remediation of the actual performance of HIE has been discussed and has influenced the governance approach recommendations. Although the specific long-term lead agency and location of the Commission will be defined, the need for potential involvement of the Attorney General’s office, the state procurement and contracting office and the Medicaid Agency have been identified and addressed. The specifics of which items relate to regulatory action versus technical assistance versus operations are yet to be established at a detail level.

In addition, the Business and Technical Operations Workgroup was also the lead workgroup for the development and implementation of the initial environmental scan (Appendix 11.2) to further identify readiness of providers to participate in an exchange. Further, the Business and Technical Operations and Technical Infrastructure workgroups met jointly to discuss the initial and long-term role and identification of the regional HIOs. With funding limitations, the Advisory Commission will focus on the development of the AHIE with the intent to beta test at some local sites that may include HIOs.

7.4.2 Business and Technical Operations Model

The AHIE will be a hybrid model with limited data storage. A survey of workgroup participants validated that most respondents favor an architecture that is focused on local needs and primarily local storage, but also capable of statewide exchange. Specifically, the majority stated in the ideal worlds, they would like a model that provides access to information that would reconcile patients and report visits, as well as provide other key pieces of clinical information, such as medication lists, allergies, problem lists, links to test results and to images. When asked what would be the most practical HIE in terms of cost and political implications, respondents suggested a model that reconciles patient information, reports visits and allows for requested data to be pulled electronically.

To fully understand and appreciate operational implications, the workgroup with the technical infrastructure workgroup, delved into user cases to further define touch points and critical components, including imaging use case. Jointly meeting with the technical infrastructure workgroup, the technical and business operations workgroup established priorities and reviewed technologies and policies that support the Alabama Vision. As the workgroup provides further details and specifications, they intend to define and publish services through which any certified EHR will be able to securely connect with minimal expenses.

While the Technical Infrastructure workgroup focused on the “how”, the Business and Technical Operations workgroup focused on the “what”.

7.4.3 Staffing
Key staff and key roles have been identified and the Governor will name the State HIT Coordinator by May 1, 2010. The detailed operational plan will provide the explicit business operations and timelines that will be initiated to effectively operate the statewide HIE functions. An overarching concern for this process and timeline is the reality that the state stakeholders need to be able to use this infrastructure as they respond to other health care reform requirements and opportunities, including the reporting of quality measures for children under CHIPRA and “meaningful use” under ARRA. However, the state is cautious not to make decisions based on mandates and/or immediate financial opportunities that do not support their health care quality and long term financial goals.

The key staff and roles as currently identified are provided in the following table.

<table>
<thead>
<tr>
<th>Key Staff</th>
<th>Role</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT Coordinator</td>
<td>Provide leadership, direction, management and coordination of the State HIT office</td>
<td>1</td>
</tr>
<tr>
<td>HIE Project Manager</td>
<td>Coordinate the efforts set forth in the state to dev and implement a statewide HIE based on the criteria set forth by the ONC and as further defined by the HIE Commission and workgroups</td>
<td>1</td>
</tr>
<tr>
<td>Meaningful Use Project Manager</td>
<td>Coordinate the efforts set forth by CMS for the implementation and adoption of MU criteria by eligible providers in the Medicaid system</td>
<td>1</td>
</tr>
<tr>
<td>Reporting/Accounting Analyst</td>
<td>Coordinate the efforts set forth by CMS for the implementation and adoption of MU criteria by eligible providers in the Medicaid system</td>
<td>1</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>Coordinate and track the various work of other individuals</td>
<td>1</td>
</tr>
</tbody>
</table>

7.4.4 Collaboration with Alabama Regional Extension Center

As discussed before, the University of South Alabama in Mobile was awarded a RECs cooperative agreement of $7.5 million in April 2010. The AHIE will collaborate with the REC technical assistance to providers who wish to participate in the State HIE and local HIOs, to the degree any exist, in
coordination with the development of HIE capacity within the state has already been discussed. The Advisory Commission is also considering the benefit to providers and Medicaid of additional Medicaid contracted engagements with the REC for purposes of assisting providers related to meaningful use activities.

Effective collaboration with the Regional Extension Center (REC) in Alabama was identified as a key strategy in making the most of other ARRA funded activities. As a result, the University of South Alabama, Alabama’s REC awardee, is a vital member of Advisory Commission and serves as a co-chair of the Technical Infrastructure workgroup.

As part of the groups’ vision of leveraging all exciting state resources, the REC technical assistance to providers who wish to participate in the State HIE and local HIOs, to the degree any exist, is an important tool to accomplish the vision. The Advisory Commission also is considering the benefit to providers and Medicaid, of additional contracted engagements with the REC for purposes of assisting providers in meaningful use activities.

7.4.5 Access to Broadband

As was mentioned before, the Department of Commerce’s National Telecommunications and Information Administration (NTIA) awarded Alabama a grant to fund broadband mapping and planning under NTIA’s State Broadband Data and Development Grant Program. The award was made to the Alabama Department of Economic and Community Affairs (ADECA) for approximately $1.4 million for broadband data collection and mapping activities over a two-year period and approximately $463,000 for broadband planning activities over a two-year period, bringing the total grant award to almost $1.9 million. ADECA is the designated entity for the state.

7.4.6 Risk Mitigation

The Advisory Commission plans to beta test at some local sites prior to “going live” to mitigate risk as much as possible. In addition, it was the recommendation of the Technical Infrastructure and Business and Operational Workgroups that the beta testing be considered a “pilot” in order to allow the state to implement the HIE in gradual manner. The “pilot” would be scalable so that it could potentially serve as proof of concept in support of a sustainable business model; however, no final decision was made on this recommendation.

7.4.7 Checklist of Activities for Operational Planning

The Advisory Commission and workgroups will continue to use a checklist going forward into the Operational Planning to track activities, identify accountable entity/person, and establish timelines and cross-check to limit the potential that critical design and implementation components are fully addressed. The checklist can be found in Appendix 11.4.
7.5 Legal/Policy

7.5.1 Legal/Policy Approach

The development of a privacy and security framework will guide the actions of all health care-related persons, entities and individuals that participate in the AHIE network for the purpose of electronic exchange of individually identifiable health information. Therefore, it is essential that the state’s privacy and security framework adhere to the privacy principles set out by the state, as well as the privacy principles provided by the Department of Health and Human Services, and must be accepted by all stakeholders in order to ensure the public trust.

The Legal and Policy Workgroup spent significant time discussing and defining the parameters and questions to be answered concerning the legal framework under which the state HIE and state government will facilitate HIE. The legal framework has been discussed in the context of a policy framework that transitions from the current governance structure to the permanent governance structure -- a method for moving the state, private purchasers/payors, providers and consumers through the process without encountering gaps in funding, leadership or implementation, including risk mitigation strategies and operational processes.

An overarching principle is to align with Medicare and federal standards and only deviate if there is a state law or state imperative that prohibits alignment. In such cases, if appropriate, the HIE will pursue adjustments in state law and/or regulation to allow for the alignment with the federal approach. This will make inter-state and connectivity with NHIN not only more viable, but less expensive. Areas of particular focus include privacy, security, standards defined in the interim ONC regulation, Medicaid and Medicare requirements and the development of actual policies, procedures and legal agreements related to HIE.

Additional core legal/policy principles for the AHIE include: (1) openness, transparency and accountability such that patients can have confidence in the system; (2) due regard for equality and equitable treatment; (3) “do no harm”; personal autonomy of the patient; and (4) a balance between the rights of the individual and the rights of the community.

The workgroup also identified strategies to assure alignment with the principles that establish policies and procedures that result in: (1) completion of thorough planning prior to implementation; (2) periodic review of legal/policy implications; (3) implementation and execution in a timely and professionally competent manner; (4) a fair process for patients and providers in a non-discriminatory manner; (5) design and execution that reflects respect for the person and dignity of the patient; (6) adequate representation for those with diminished capacity; (7) confidentiality and security of personal health information; and (8) compliance
with both the letter and spirit of the law. These strategies will be implemented in a way that ensures scalability with technological advances in information technology, medical technology and security. Adoption will be the responsibility of every HIE participant to ensure electronic individually identifiable health information (IIHI) is protected at all times.

Another area under the legal/policy workgroup that has been identified, but is on hold until further guidance from ONC and a national evaluator is named, is the evaluation component. Nonetheless, all policy decisions regarding data/information have sought to consider how the information can be used to better manage the project, provide state and federal evaluation information and improve the care delivered. The annual report requirements related to the identified components of the Strategic and Operational Plans and elements specified in the agreement with ONC will be integrated into the checklist for the core evaluation methodology and process.

7.5.2 Legal/Policy Current State Assessment

In order for Alabama’s HIE to be successful, the state will ensure that the laws which govern protected health information within the state correlate with each other, as well as ensure that state laws are not preempted by federal law. At present, Alabama has numerous state laws relating to privacy and security that can be found in various sections of the Code of Alabama. These statutory sections provide different circumstances for which Personal Health Information (PHI) can be exchanged. There are also variations in allowable and mandatory disclosures, depending on the type of information, the intended recipient of the information and the purpose of the disclosure. Alabama does not provide a single, consistent approach to privacy and security. The coordination of the existing and future state statutes with federal law and with laws of other states will be a crucial first step.

As Alabama moves forward to create AHIE, the Advisory Commission will create a sub-workgroup whose mission is to identify state privacy laws in various codes. After these laws are identified, the workgroup will be required to make a determination about whether the laws conflict with one another, conflict with federal law or regulations or hinder the mission of Alabama’s HIE. If state laws are not in concert of if they conflict with federal laws or regulations, the workgroup will then undertake the process of amending the laws so that they coincide with one another or are not preempted by federal law. If the state law is found to obstruct the mission of Alabama’s HIE program, the workgroup will assess how these laws can be amended so that the mission of the HIE program can be legally and efficiently accomplished. The Advisory Commission will elicit input and coordinate a survey of the review findings and recommended changes with stakeholders accessing and generating health information, as well as HIT organizations and legal/policy experts throughout the state. These stakeholders include the Alabama Legislature through its Legislative Reference Service, the
Alabama Law Institute, public and private health care providers, health care payors, regulators, health information licensing boards, consumers, and health law attorneys.

The workgroup also will ensure that policies and procedures drafted in anticipation of the AHIE are created within the context of the above-mentioned principles and strategies. These principles will be reviewed and will serve as a guide to the taskforce as they begin the foundational work needed to create the policies and procedures for Alabama's HIE framework. The overall purpose of utilizing these principles and strategies in the development of the AHIE framework is to ensure the mission of the HIE, which includes improving the quality, safety and efficiency of healthcare in the state of Alabama.

7.5.3 Key Success Factor: Development of Exchanges with Other States

A key AHIE success factor will be the capability to share information with other states. With a myriad of regulations, policies and procedures in each state, this effort will require significant effort and focused attention. Alabama will accomplish this task using a three phased approach.

- **Phase 1 Identification of Best Practice:** A policy review team will be established in order to gain an understanding of other state policies regarding HIE to determine where common ground exists and to identify where Alabama policy changes may need to be pursued. To gain insight, this team will review pilot programs that have been established. One example is the pilot exchange between North and South Carolina. Additionally this group will review the extensive work the Health Information Security and Privacy Collaboration (HISPC) has done in this area. The team will draft a report on best practices, lessons learned and opportunities gleaned from their research.

- **Phase II Establish Pilot Interstate Exchanges:** A survey of Alabama’s border States (FL, GA, MS, TN) will be conducted to determine which states have the most compatible technologies and policies in place. Once potential collaborators are discovered we will review the various approaches that could be used to overcome barriers caused by the wide variability in privacy and security requirements. Once solutions for technical and policy incompatibilities are agreed to, one or more pilot programs would be established. Alabama will target larger communities bordering the state such as Pensacola, FL, Columbus, GA or Chattanooga, TN, where a strong need for coordination of health information across state lines already exists.

- **Phase III Interstate Exchange Expansion:** Lessons learned from the pilot exchanges will be used to facilitate additional exchanges with bordering
states as well as with other willing HIEs. New exchanges will continually be developed as need and demand require.

A critical component of this effort will be continual education of all stakeholders as to the current progress of these efforts. Patient consent forms will be developed which both inform individuals about the interstate data exchanges and their purpose. Toolkits and other resources will be used to educate other stakeholders.

7.5.4 Key Success Factor: Stakeholder Endorsement

Another key success factor is support from all the stakeholder groups whose acceptance, trust, cooperation and collaboration is critical in order to achieve the mission, vision and strategic goals of the AHIE. The Advisory Commission has identified the following major stakeholders:

- **Consumers**: Consumers are the patients and the legal representatives of patients seeking the assurance of having a meaningful level of control over who can access their protected health information in the HIE. Consumers want to know that their health information is protected and secure and will be viewed only by individuals who receive authorization. They also want providers to be able to access their information to improve quality at the point of care.

- **Providers**: Providers are health care professionals who want an HIE that ensures data accuracy, clinical effectiveness and efficiency, and high quality care. Providers want ease of access to a consumer’s complete medical record at the point of care to enable them to provide consistent, timely, safe, high quality medical care. They also want a HIE system that is affordable and simple to implement, use and maintain. This is especially true for providers in small practice settings.

- **Provider Organizations**: Provider organizations include hospitals, clinics, nursing homes, home health agencies, durable medical equipment companies and other organizations offering health care goods or services. These groups want assurance that HIE requirements do not impose heavy administrative, technical and/or financial burdens on their organization and their resources. Many of these institutions already have internal information systems and want to ensure any new systems can be implemented in harmony with existing work flow and any other requirements of their existing systems.

- **Payor Organizations**: Payor organizations include all private and government health insurance payors. These groups have already begun taking more active roles in supporting improvements in health record keeping and health care outcomes for their members through personal
health records and disease management initiatives. Payors want access to their members’ medical information to facilitate care management in the hope of improving quality of care and reducing costs.

- **Education**: Education includes teaching hospitals, residency programs, research intuitions and other educational institutions involved in support of HIEs. These groups want ease of access to information where appropriate and the ability to access limited data sets and other various data sets as permitted by law and policy. These institutions want to ensure the HIE does not create additional barriers to PHI access.

- **Government**: The U. S. Congress, the Department of Health and Human Services, state legislatures and policymakers at all levels are charged with advancing HIT to support improvements in health care quality, affordability and outcomes. The policy framework and technical infrastructure arising from the HIE initiative will form a link, advancing an interoperable HIE to support quality improvement initiatives, public health reporting and biohazard surveillance activities.

Through a statewide collaborative process, representatives from each stakeholder group will be charged with establishing a policy framework that serves the interests and promotes the wellbeing of the public. Designing and building a successful HIE while protecting the privacy of individuals and earning and securing their trust is a top priority for the Commission. Success will occur only with broad-based support from consumers, providers, payors and all the other stakeholders belonging to or with interests in the health care system.

The Advisory Commission will maximize potential stakeholder support by inviting representatives from each group of stakeholders to participate in planning and implementation in each aspect of the effort. Additionally, stakeholder groups will work directly with the Communications Workgroup to develop information and educational materials especially for their members.

### 7.5.5 Policy and Procedure Development

Policies and procedures essential to the successful implementation of AHIE will be identified and/or drafted using the following criteria:

- **Adherence to State and Federal Privacy Laws**: The workgroup identified above will review state and federal privacy laws with an eye to enable and foster information exchange both within the state and across state lines as appropriate. Policies will be drafted to apply to providers, agencies and other stakeholders. Policies and procedures will be reviewed in light of the definition of “appropriate use” of electronic health information as defined by HHS. The effort will address the interdependencies among policy requirements, HIE governance, and oversight mechanisms.
• **Stakeholder Protection:** Policies and procedures will be created to encourage endorsement of statewide policy framework by all stakeholders. This will be accomplished through an open and transparent process that clearly identifies and explains policies, procedures, and technologies. Safeguards will ensure confidentiality. Policies will address accountability in both compliance with policies and in policy monitoring. Reasonable steps will be identified to ensure quality and integrity; and all data use will be limited to the minimum necessary to accomplish its intended purpose.

• **Consumer Protection:** The AHIE policies will provide for access to data that is reasonable and consistent with security needs. Levels of consumer access to information in the HIE will be defined and sensitive health information will be protected. Policies will ensure that consumers have a timely means to dispute the accuracy of HIE information. Consumers will be given choice regarding decisions about the collection, use and disclosure of their PHI. Policies will be developed for individual consent to include Opt-in/Opt-out options and consents that include forms, procedures and timeframes. Procedures will give consumers guidance to make informed decisions.

• **Transparency:** Policies and procedures designed to build trust for stakeholders will be included. These policies will require public access to standards whether statewide, regional, or national. The public will also be provided information on compliance to policies by providers and agencies.

• **Policies to Merge with Interstate Transfer of Data:** Policies governing the interstate transfer of data will include procedures for ensuring compliance with regulations as well as specifying penalties for non-compliance.

7.5.6 Data Usage and Reciprocal Sharing Agreements (DURSA)

The AHIE will develop Data Usage and Reciprocal Sharing Agreements (DURSAs) that will allow AHIE participation and information exchange as well as regional and national participation. In order for Alabama to have an effective DURSA, the Advisory Commission intends to study the efforts of other state and national HIEs. The work recently carried out by the Inter-organizational Agreements Collaborative (IOA) of the HISPC project of March 2009 is acknowledged. The efforts of this group resulted in sample agreements that have been realized by multiple state HIE consortiums and have become de-facto models in the development of a practical operational DURSA. Adopting such models can greatly reduce the time, money, and additional resources required to design an effective DURSA.
The guiding principle of the IOA’s work has been the mutually acceptable resolution of barriers consistent with applicable privacy and security laws and regulations. The intent of the IOA work was to produce standardized agreements that received significant review, that are consistent among participants, and that could be used throughout the United States and its territories. The IOA-drafted DURSAs can be used for public health agency to public health agency exchange of PHI held in public health registries pursuant to various federal and state laws and for private entity-to-entity exchange of PHI among private entities such as hospitals, medical centers, physicians, regional health information organizations, laboratories, payors, PHRs, and other private organizations. To the degree possible, Alabama plans to be consistent with this important work to ensure the resulting DURSA is compatible with state requirements and interoperates with these national standards. Additional DURSAs must be developed to enable private entity-public entity exchanges.

Alabama DURSAs will be drafted with consideration and compliance across all state jurisdictions and applicable governing law; address dispute resolution local to Alabama law as well as cases where disputes cross state boundaries; conform to all HIPAA/HITECH regulatory requirements for privacy and security; govern the exchange of information requested for the purposes of treatment, payment, health care operations, and, in the case of the public-to-public agreement, public health data. and carefully consider Alabama’s law in specific categories such as HIV/AIDS, mental health, drug and alcohol dependencies, abuse and neglect, and sexually transmitted infections. In addition DURSAs will be draft to clarify that entering into an agreement does not change ownership of the data involved. Additionally, Alabama public and private DURSAs will be developed keeping in mind the information presented in the National Health Information Network (NHIN) document titled “Data Use and Reciprocal Support Agreement.”

To enable the rapid proliferation of HIEs within Alabama, the following “next” steps are recommended to ensure Alabama’s DURSAs are structured to promote the standardization of HIE agreement and to appropriately allocate risk among participants:

- Ensure Alabama’s agreements are structured to align with other states’ and national HIEs’ DURSAs. This will involve a careful analysis of Alabama state law (especially in the sensitive PHI areas) and how other states deal with similar restrictions.

- Ensure existing agreements among entities sharing data are consistent with accepted national models.

- Ensure agreements are promulgated with meaningful input of all stakeholders to provide consistent and strong privacy and security standards.
7.5.7 Legal/Policy Action Steps

As the Advisory Commission moves forward to create the AHIE, a specific workgroup will be created whose responsibility will be to identify state privacy laws in various codes; a policy review team will be established in order to gain an understanding of other state policies regarding HIE to determine where common ground exists and to identify where Alabama policy changes may need to be pursued, and a survey of Alabama’s border states (FL, GA, MS, and TN) will be conducted to determine which states have the most compatible technologies and policies in place. Stakeholder groups will work directly with the Communication and Marketing Workgroup to develop information and educational materials especially for their members. Patient consent forms will be developed which both inform individuals about the interstate data exchanges and their purpose. Toolkits and other resources will be used to educate other stakeholders.

7.6 Communication and Marketing

As stated previously, the significance of consumer and provider understanding and engagement is not only critical to the initiative’s initial success but to the transformation of how health care is delivered and managed in the longer term. Therefore, Alabama has taken an additional step and sent a strong statement by incorporating a communication and marketing workgroup into the process. The Communication and Marketing Workgroup is looking at all of the workgroups’ activities and plans in order to provide a unified message across the plans for all of the workgroups. Initially, the workgroup’s focused on identifying relevant stakeholders and constituencies and analyzing audience characteristics, stakeholder interests related to HIE, potential opportunities and likely barriers to adoption as a prelude to the development of full-scale marketing and communications plans for implementation. The workgroup held some audience analysis presentations in April from health plans and purchasers regarding barriers to adoption and resources needed for communication; from patients/consumers related to government involvement; from state government agencies concerning participation and their constituent populations; from hospitals focusing on HIE as it means to improve patient care; from physicians on the topic of engagement and benefit of HIE, and from health professional schools on the subject of health professional programs.

Other operational activities to inform all stakeholders regarding the initiative itself are underway, including Web site development and branding. The workgroup identified five messages for the AHIE branding regarding Alabama’s HIE system: it is trustworthy, secure and private; it is accurate, dependable and available; it is not just an electronic health record, but a true health information exchange; it is for everyone in the state, and it is statewide in scope with connectivity beyond the state. As indicated, these actions have been externally focused to those indirectly impacted as well as those directly involved in the process. At the May
Advisory Commission meeting the Commissioners considered options provided by the Communications and Marketing Workgroup regarding the branding name and logo in relationship to the overall concept of a HIE, what it would communicate to physicians, consumers, public, elected officials and health professionals. The long-term strategy calls for development of strategic communication plans to achieve stakeholder collaboration, buy-in and trust of AHIE. Communications strategies will also be developed to support and extend the efforts of the other five ONC-domain workgroups in Alabama and to facilitate consumer input and acceptance.

7.7 Recommendations for the Five Key Domains Plus One

As the state moves to its detailed operational plan, the workgroups and Advisory Commission are mapping policy and planning activities, and addressing optional and mandatory decision points along with funding opportunities and limitations. Since these activities will be a moving target, the stakeholders have chosen strategies that have the ability to adjust to mid-path changes. Throughout the process, the Advisory Commission and state staff intend to track and document changes, determine what must happen sequentially and what can be addressed simultaneously. As indicated above, the state is seeking to put into place the appropriate infrastructure, and human and IT resources. Balancing the risk of not doing has to be balanced against the risk of moving without adequate preparation and the appropriate consumer and provider engagement.

The recommendations for how to move forward in each of the domains are summarized below:

Table 3
Summary of ONC’s Five Domains Plus One and Advisory Commission Recommendations

<table>
<thead>
<tr>
<th>Domain</th>
<th>Recommendations</th>
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</thead>
<tbody>
<tr>
<td>Governance</td>
<td><strong>AHIE Start-up:</strong> The initial phase of AHIE is being managed by the State in a highly-collaborative effort with stakeholders as an Advisory Commission chaired by the Medicaid Commissioner, including the State HIT Coordinator, and representatives from state agencies, private purchasers, payors, providers and consumers. The existing governance structure has already completed significant work needed to launch.</td>
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<td><strong>Long-Term Governance through a Public/Private Partnership:</strong> In the long term, an AHIE Operating Commission (Operating Commission) will be established with public-private membership as a 501(c)(3) non-profit organization or other formal type of government governing</td>
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<tr>
<td>Domain</td>
<td>Recommendations</td>
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<td>board depending on needs at that time. Transition from the Commission will occur when deemed necessary by factors such as, but not limited to, when HIE is funded by less than a pre-determined amount of public funds, and/or when the product and process is stabilized., or when necessary to mitigate risks to the federal and/or state government.</td>
</tr>
<tr>
<td>Finance</td>
<td><strong>Sustainability:</strong> Multiple options were considered and some combination of public and private funding will be required with the acknowledgement that state budgeted funding is limited. Transaction payments are not considered viable, but subscription payments are under consideration.</td>
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<tr>
<td>Technical Infrastructure</td>
<td><strong>Technical Architecture Approach</strong></td>
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<tr>
<td></td>
<td>Core Application: Web-based</td>
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<td></td>
<td>Core Platform:</td>
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<tr>
<td></td>
<td>• Master patient index</td>
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<td>• Directories; Provider</td>
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<td></td>
<td>• Connection: capability for secure routing for provider-to-provider messaging, portal access, NHIN gateway services</td>
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<tr>
<td></td>
<td>• Record locator service (RLS)</td>
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<tr>
<td></td>
<td>• Audits / reporting</td>
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<tr>
<td></td>
<td>Proposed Core Data Elements for the Initial Phase: Medication history, problem list, allergies</td>
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<td></td>
<td>Additional Functionality:</td>
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<td></td>
<td>• Utilize exchange to give providers a single interface with state labs, immunization registry, etc.</td>
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<td>• As more is known about reporting quality measures, evaluate AHIE as a clearinghouse for this information.</td>
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<td>• Offer providers a single interface with payors for insurance eligibility and claims checking.</td>
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<td>• Evaluate the inclusion of an EMR in the exchange to promote participation by providers and to serve as a revenue source for the AHIE</td>
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<td></td>
<td>Approach: Designed with expansive capabilities, but</td>
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<tr>
<td>Domain</td>
<td>Recommendations</td>
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<tr>
<td>Business and Technical</td>
<td><strong>Implementation Strategy for AHIE:</strong> An incremental approach will be used for implementing the AHIE starting with hospitals and physicians/clinics, and within those groups, entities eligible for meaningful use incentives.</td>
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<tr>
<td>Operations</td>
<td><strong>Key Staff Identified (Employed by the State):</strong> HIE State Coordinator, HIE Project Manager, Meaningful Use Project Manager, Reporting/Accounting Analyst, and Administrative Support</td>
</tr>
<tr>
<td>Legal/Policy</td>
<td><strong>Federal Standards:</strong> An overarching principle is to align with federal standards and only deviate if there is a state law or state imperative that prohibits alignment.</td>
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<td><strong>Privacy and Security:</strong> AHIE infrastructure will meet the required federal and state standards for data security and integrity and establish appropriate authentication, credentials and consent management mechanisms to ensure protection of consumer privacy.</td>
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<td></td>
<td><strong>Other Policies:</strong> The operational plan will provide the detail, however, policies and procedures will be pursued that result in: completion of thorough planning prior to implementation; periodic review of legal/policy implications; implementation and execution in a timely and professionally competent manner; a fair process for patients and providers in a non-discriminatory manner; design and execution showing respect for the person and dignity of the patient; adequate representation for those with diminished capacity allowed, and compliance with both the letter and spirit of the law.</td>
</tr>
<tr>
<td>Communications and</td>
<td><strong>AHIE Communications Strategy:</strong> A detailed initial communications plan has been designed to educate consumers and providers about how electronic records and health information exchange can improve the quality and efficiency of health care for Alabamans. The first set of communications in the strategy are focused on what the initiative “is” and “is not”, what activities are happening within the state and why, and the significance of the scan.</td>
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<tr>
<td>Marketing</td>
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8.0 Outcomes and Performance Measures for Operation and Evaluation

Although the formal evaluation process is on hold until further guidance from ONC and a national evaluator is named, components of the operational oversight structure have been assessed and reviewed by domain as a part of the strategic planning decision making process. Since the compilation of the parts into an overall strategy is a cross-cutting activity, the legal/policy workgroup has been assigned that responsibility.

An overarching principle has been that the inclusion or exclusion of an outcome and/or performance measure should be based on its usefulness for both day-to-day operations and evaluation at the individual, population, initiative and statewide level from the perspective of consumers, providers, purchasers/payors and providers. Strategies that align with this principle include inclusion of outcomes and/or performance measures that are: useful in meeting requirements for quality reporting under CHIPRA, ARRA and health care reform, including “meaningful use”; feasible for collection, meaning the necessary data elements exist; specifications can or are already defined; and a method of collect consistency has been addressed, and are National Quality Forum (NQF) approved measures, measures established by CMS for Medicaid and/or Medicare, and/or measures established through CHIPRA, ARRA or Health Care Reform.

The design of the ongoing governance process assures that there will be monitoring in place. In addition, it maintains a targeted degree of participation in HIE-enabled state-level technical services. Examples of key performance measures that are under consideration by domain range from the proportion of the governing organization represented by public stakeholders (governance) to what proportion of healthcare providers in the state that are able to receive electronic health information using the HIE technical infrastructure (technical) to what extent technical assistance is available to those developing health information (business and technical operations), to what extent the governance organization had developed and implemented privacy policies and procedures consistent with state and federal requirements exchange services (legal/policy). Validation of the involvement will be part of the evaluation process and will also be addressed in the 2011 required annual report.

The evaluation approach will be multi-tiered due to the reporting needs of the long-term governing body and ONC. The measures needed for ONC reporting will be identified following the approval of the Strategic and Operational plans by ONC.

9.0 Coordination with Federally Funded Activities
Another component of the annual report that will be submitted for 2011 according to the timeline established by ONC will be information on the alignment of the Strategic and Operational Plans with other ARRA components. Alabama has been extremely fortunate to have been awarded various other ARRA funding projects, including an REC (University of South Alabama), 15 Health Care ARRA Capital Improvement Program Grants, and curriculum development (University of Alabama of Birmingham). The key leaders from other ARRA funded efforts are on the current Advisory Commission and the intent would be to continue to include them in the structure as it transitions to the Commission in the future.

10.0 Summary of Call to Action

The use of AHIE as a secure statewide information exchange can offer necessary electronic health information to practitioners providing services at the point of care, improve quality outcomes, enhance patient safety, reduce redundant tests and procedures, lead to a reduction in overall health care costs and improve efficiency in public health monitoring and tracking. The picture is clear (see Figure 2 below). The next step is making it happen.

AHIE will help to create a safer, more efficient and more effective world of health care will help to create a new world of health care.
11. Appendices

11.1 Definition of Terms

**American Recovery and Reinvestment Act of 2009 (ARRA):** This Act is a $787.2 billion stimulus measure, signed by President Barack Obama on February 17, 2009, that provides aid to states and cities, funding for transportation and infrastructure projects, expansion of the Medicaid program to cover more unemployed workers, health IT funding, and personal and business tax breaks, among other provisions designed to stimulate the economy.

**Centers for Medicare and Medicaid Services (CMS):** CMS is a federal agency within the United States Department of Health and Human Services that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children’s Health Insurance Program (SHIP), and health insurance portability standards.

**Certification Commission for Healthcare IT (CCHIT):** CCHIT is a recognized certification body (RIB) for electronic health records and their networks. It is an independent, voluntary, private-sector initiative, established by the American Health Information Management Association (ANIMA), the Healthcare Information and Management Systems Society (HIMSS), and The National Alliance for Health Information Technology.

**Certified EHR:** A qualified electronic health record that is certified pursuant to section 3001(c) (5) of the HITECH Act as meeting federal standards applicable to the type of record involved such as an ambulatory electronic health record for office-based physicians or an inpatient hospital electronic health record for hospitals.

**Electronic Health Record (EHR):** As defined in the ARRA, an Electronic Health Record (EHR) means an electronic record of health-related information for an individual that includes patient demographic and clinical health information, such as medical histories and problem lists; and has the capacity to provide clinical decision support, to support physician order entry, to capture and query information relevant to health care quality, and to exchange electronic health information with and integrate such information from other sources.

**Electronic Medical Record (EMR):** An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization.

**Electronic Prescribing (e-Prescribing):** A type of computer technology whereby physicians use handheld or personal computer devices to review drug
and formulary coverage and to transmit prescriptions to a printer or to a local pharmacy. e-Prescribing software can be integrated into existing clinical information systems to allow physician access to patient-specific information to screen for drug interactions and allergies.

**Health Information Exchange (HIE):** As defined by the Office of the National Coordinator and the National Alliance for Health Information Technology (NAHIT), HIE means the electronic movement of health-related information among organizations according to nationally recognized standards.

**Health Information Technology (Health IT):** As defined in the ARRA, Health IT means hardware, software, integrated technologies or related licenses, intellectual property, upgrades, or packaged solutions sold as services that are designed for or support the use by health care entities or patients for the electronic creation, maintenance, access, or exchange of health information.

**Health Information for Economic and Clinical Health Act (HITECH):** HITECH collectively refers to the HIT provisions included at Title XIII of Division A and Title IV of Division B of the ARRA.

**Health Insurance Portability and Accountability Act (HIPAA):** HIPAA was enacted by Congress in 1996. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers. The Administration Simplification provisions also address the security and privacy of health data. The standards are meant to improve the efficiency and effectiveness of the nation’s health care system by encouraging the widespread use of electronic data interchange in the U.S. health care system. ARRA has made amendments to HIPAA’s security and privacy provisions.

**Health Information Organization:** An organization that oversees and governs the exchange of health-related information among organizations according to nationally recognized standards.

**Interface:** A means of interaction between two devices or systems that handle data.

**Interoperability:** Interoperability means the ability of health information systems to work together within and across organizational boundaries in order to advance the effective delivery of healthcare for individuals and communities.

**Meaningful EHR User:** As set out in the ARRA, a Meaningful EHR user meets the following requirements: (i) use of a certified EHR technology in a meaningful manner, which includes the use of electronic prescribing; (ii) use of a certified
EHR technology that is connected in a manner that provides for the electronic exchange of health information to improve the quality of health care; and (iii) use of a certified EHR technology to submit information on clinical quality and other measures as selected by the Secretary of HHS.

**Nationwide Health Information Network (NHIN):** A national effort to establish a network to improve the quality and safety of care, reduce errors, increase the speed and accuracy of treatment, improve efficiency, and reduce healthcare costs. The Nationwide Health Information Network (NHIN) is a set of standards, services and policies that enable secure health information exchange over the Internet.

**Office of the National Coordinator (ONC):** ONC serves as principal advisor to the Secretary of HHS on the development, application, and use of HIT; coordinates HHS’s HIT policies and programs internally and with other relevant executive branch agencies; develops, maintains, and directs the implementation of HHS’ strategic plan to guide the nationwide implementation of interoperable HIT in both the public and private health care sectors, to the extent permitted by law; and provides comments and advice at the request of OMB regarding specific Federal HIT programs. ONC was established within the Office of the Secretary of HHS in 2004 by Executive Order 13335.

**Privacy:** In December 2008, the Office of the National Coordinator for Health IT released its “Nationwide Privacy and Security Framework For Electronic Exchange of Individually Identifiable Health Information”, (“Framework”) in which it defined privacy as, “An individual’s interest in protecting his or her individually identifiable health information and the corresponding obligation of those persons and entities that participate in a network for the purposes of electronic exchange of such information, to respect those interests through fair information practices”.

**Regional Health Information Organization (HIO):** A HIO that brings together healthcare stakeholders within a defined geographic area and governs HIE among them for the purpose of improving health and care in that community.

**Regional Health Information Technology Extension Centers (RHITECs):** As set out in the ARRA, RHITECs will be established and may qualify for funding under ARRA to provide technical assistance and disseminate best practices and other information learned from the Health Information Technology Research Center to aid health care providers with the adoption of HIT.

**State-Designated Entities (SDEs):** As defined in the ARRA, SDEs may be designated by a State as eligible to receive grants under Section 3013 of the ARRA. To qualify as an SDE, an entity must be a not-for-profit entity with broad stakeholder representation on its governing board; demonstrate that one of its principal goals is to use information technology to improve health care quality and efficiency through the authorized and secure electronic exchange and use of
health information; adopt nondiscrimination and conflict of interest policies that demonstrate a commitment to open, fair, and nondiscriminatory participation by stakeholders; and conform to other requirements as specified by HHS.

**Security:** The Health Insurance Portability and Accountability Act Security rule defines “Security or Security measures” as “encompass[ing] all of the administrative, physical, and technical safeguards in an information system.

**U.S. Department of Health and Human Services (HHS):** HHS is the federal government agency responsible for protecting the health of all Americans and providing essential human services. HHS, through CMS, administers the Medicare (health insurance for elderly and disabled Americans) and Medicaid (health insurance for low-income people) programs, among others.
11.2 Environmental Scan

1. Introduction

ELECTRONIC HEALTH INFORMATION EXCHANGE AND CAPABILITY TO PARTICIPATE IN MEDICARE OR MEDICAID “MEANINGFUL USE” INCENTIVES SURVEY

The Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH) provisions of the American Recovery and Reinvestment Act of 2009 (ARRA) provides federal funding for states to implement Health Information Exchanges (HIEs) and to develop Regional Extension Centers (RECs).

In order for the Alabama Medicaid Agency to obtain federal funding to provide financial incentives to certain providers to convert their paper records to an electronic format and to begin to exchange health information electronically, the state must conduct a comprehensive environmental scan. The questions in the environmental scan are designed to include required information such as providers' movement toward implementation of electronic health records, as well as their ability to become meaningful users of certified health information technology.

We need every provider practice to click on the link below and complete the online questionnaire. The survey should be answered on behalf of all providers in the practice, as opposed to one survey per provider. The person selected to complete the survey should be able to answer questions relating to the Financial, Clinical and Technical aspects of the practice.

The survey should take approximately 15-20 minutes to complete if you have an EHR and approximately 10 minutes to complete if you do not. The results will be used in aggregate to complete the state's environmental scan. No provider information will be released.

However, since part of the federal funding includes technical assistance to help providers select and implement the meaningful use of electronic health records (EHRs), you may choose to include the name of your practice in order so that, if needed, we may follow up with you to assess your needs as the year progresses.

When completing the survey, please use the following definitions:

Electronic Health Record (EHR): An electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.
Electronic Medical Record (EMR): An electronic record of health-related information on an individual that includes patient demographic and clinical health information, such as medical history and problem lists that is available to only one individual hospital or provider and is not shared between entities.
2. Background

1. What is your practice by specialty? Please only include active providers.

- a) FQHC/RHC
- b) Community Mental Health Clinic
- c) Hospital
- d) Chiropractor
- e) Dentist
- f) Nurse Practitioner
- g) Nurse Midwife
- h) Optometrist
- i) Podiatrist
- j) Physician
3. Physician Specialty

2. Please indicate your specialty:
   a) Family Practitioner
   b) Internist
   c) OB/GYN
   d) Pediatrician
   e) Psychiatrist
   f) Other Specialist
4. Patient Population Information

This page asks questions about your practice's patient population.

3. How many providers are in your practice?

4. Does your practice serve Medicaid patients?
   - Yes
   - No
5. Medicaid Follow-up questions

This page asks questions about your practice's Medicaid population.

5. What percentage of your overall practice does Medicaid represent?

6. What is your annual number of total patient encounters (office visits)?

7. What is your annual number of Medicaid patient encounters (office visits)?

8. Are any of your practice's providers anticipating applying for Medicare or Medicaid incentives for adopting Health Information Technology?

☐ Yes
☐ No
6. Electronic Assessment of Practice

9. Check all activities that you routinely perform electronically:
   - a) Check insurance
   - b) File claims
   - c) Provide summary care information
   - d) E-prescribing
   - e) Telemedicine

10. For which of the following tasks do you or your staff currently use computers in your practice? (Check all that apply.)
   - a) Claim filing
   - b) Staff calendar
   - c) Patient scheduling
   - d) Links to managed care plans to submit or track referrals
   - e) Inquiries to plans about coverage and patient financial shares
   - f) Submission/receipt of clinical lab orders by staff or physician
   - g) Submission/receipt of radiology/imaging orders by staff or physician
   - h) Prescription order transmittal to pharmacy
   - i) Prescription refills
   - j) Drug interaction warning system
   - k) Sharing clinical data with other health care organizations
   - l) E-mail to and from patients for administrative tasks
   - m) E-mail to and from patients for clinical tasks
   - n) Online patient consulting for a fee
   - o) Other
11. Which phrase best describes your clinic's use of paper charts for patient information tracking?
- We do not maintain paper charts - we are entirely paperless
- We maintain paper charts, but our electronic system is the most accurate and complete source of patient information
- We document all patient data in both paper charts and our electronic system
- We primarily use paper charts, but maintain electronic records for some clinical information
- Not sure

12. Does your clinic provide patients with electronic access to their health information (including lab results and medication lists) within 96 hours of the information being available to the provider?
- a) Yes, at least 10% of all unique patients are provided electronic access to health information within 96 hours of the information being available to the provider
- b) No, we do provide electronic access to health information but it takes longer than 96 hours
- c) No, we do not provide patients electronic access to health information
- d) Not sure

13. How does your clinic track patient consents?
- Consents are tracked electronically (with check boxes, electronic signatures, etc.)
- Scanned paper consents - Signed papers are scanned into the EHR
- Paper consents only - Signed consents are filed as paper.
14. Which capabilities would you like to see included in a State Health Information Exchange?

- a) Master Patient Index so you can match patients with other providers
- b) Master Provider Directory information on other providers, including e-mail, for referrals, etc
- c) Ability to submit quality measures to CMS for “meaningful use”
- d) Connectivity to Radiology:
  - i. Reports
  - ii. Results
  - iii. Images
- e) Connectivity to Lab:
  - i. Reports
  - ii. Results
- f) E-prescribing
- g) Medication History
- i) Connectivity to State registries:
  - i. Immunization
  - ii. Newborn screening
  - iii. Lead screening
  - iv. Other (name )
- h) Connectivity to Public Health:
  - i. Surveillance Reporting
  - ii. Delivery of health care
- i) Connectivity to Mental Health Providers
- i) Patient Portal
15. Electronic Health Record (EHR): An electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

Electronic Medical Record (EMR): An electronic record of health-related information on an individual that includes patient demographic and clinical health information, such as medical history and problem lists that is available to only one individual hospital or provider and is not shared between entities.

Which statement best describes the current status of your practice?

☐ We are currently using an EMR.
☐ We are currently using an EHR.
☐ We are currently using an EHR and an EMR.
☐ We are not currently using an EHR or EMR.
7. Future Plans to Implement

16.
Electronic Health Record (EHR): An electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

Do you plan to implement an EHR?
☐ Yes
☐ No
8. EMR focused questions

This page asks about your clinic’s use of EMRs.

17. Electronic Medical Record (EMR): An electronic record of health-related information on an individual that includes patient demographic and clinical health information, such as medical history and problem lists that is available to only one individual hospital or provider and is not shared between entities.

How often do you use the EMR to assist you with the following tasks?

<table>
<thead>
<tr>
<th>Task</th>
<th>Never</th>
<th>Seldom</th>
<th>Most of the time</th>
<th>Does not apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Obtain information on investigation or treatment procedures</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Answer questions concerning general medical knowledge (e.g.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>concerning treatment, symptoms, complications etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Produce data reviews for specific patient groups, e.g.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>complication rate, diagnoses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
<td></td>
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<tr>
<td>-------</td>
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<td></td>
</tr>
<tr>
<td>d) Enter daily notes</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>e) Obtain the results from new test or investigations</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>f) Follow the results of a particular test or investigation over time</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>g) Seek out specific information from patient records</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>h) Review the patient's problems</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>i) Order clinical biochemical laboratory analyses</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>j) Obtain the results from clinical biochemical laboratory analyses</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>k) Order X-ray, ultrasound or CT investigations</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>l) Obtain the results from X-ray, ultrasound or CT</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>---</td>
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<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>m) Order other supplementary investigations</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>n) Obtain the results from other supplementary investigations</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>o) Refer the patient to other departments or specialists</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>p) Order treatment directly (e.g. medicines, operations etc.)</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>q) Write prescriptions</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>r) Write sick-leave notes</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>s) Collect patient information for various medical declarations</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>t) Give written individual information to patients, e.g. about medications, disease status</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>u) Give written general</td>
<td>☐ Never ☐ Seldom</td>
<td>☐ Most of the time</td>
<td>☐ Does not apply</td>
<td></td>
</tr>
<tr>
<td>medical information to patients</td>
<td>Never</td>
<td>Seldom</td>
<td>Most of the time</td>
<td>Does not apply</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>-----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>v) Collect patient info for discharge reports</td>
<td>□ Never</td>
<td>□ Seldom</td>
<td>□ Most of the time</td>
<td>□ Does not apply</td>
</tr>
<tr>
<td>w) Check and sign typed dictations</td>
<td>□ Never</td>
<td>□ Seldom</td>
<td>□ Most of the time</td>
<td>□ Does not apply</td>
</tr>
<tr>
<td>x) Register codes for diagnosis or performed procedures</td>
<td>□ Never</td>
<td>□ Seldom</td>
<td>□ Most of the time</td>
<td>□ Does not apply</td>
</tr>
</tbody>
</table>

18. Electronic Health Record (EHR): An electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

---------------------------
Do you plan to implement an EHR?

□ Yes
□ No
9. Reasons To Implement EHR

This page asks about your clinic's plans to implement an EHR.

19. If you are planning to implement an EHR in the future, please describe the steps you have taken towards that effort?

20. Electronic Health Record (EHR): An electronic record of health-related information on an individual that conforms to nationally recognized standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.

If you are planning to invest in an EHR in the near future, have you invested in any technology, such as an interface module that will allow you to connect to an EHR?

☐ Yes
☐ No
10. End of Survey

43.

You have completed the Alabama HIE/Meaningful Use survey!

Thank you for taking the time to complete this survey.

Again if you would like to provide practice information, we will keep your information on file for future technical assistance through the HIE.

**Optional Identification:**

<table>
<thead>
<tr>
<th>Name of Practice</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Person Completing the Survey</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>Business Address</td>
<td></td>
</tr>
<tr>
<td>Your Phone Number</td>
<td></td>
</tr>
<tr>
<td>Your E-Mail</td>
<td></td>
</tr>
</tbody>
</table>
11.3 AHIE Advisory Commission Membership

Chair

Carol H. Steckel, Commissioner
**Alabama Medicaid Agency**
501 Dexter Avenue
Montgomery, AL 36130

Vice-Chair

Donald Williamson, MD, State Health Officer
**Alabama Department of Public Health**
The RSA Tower
201 Monroe Street
Montgomery, AL 36130

Other Members

Mark Jackson
**Medical Association of the State of Alabama**
19 South Jackson Street
Montgomery, AL 36104

Linda Lee, Executive Director
**Alabama Chapter – American Academy of Pediatrics**
19 South Jackson Street
Montgomery, AL 36104

Jeff Arrington, Executive Vice President
**Alabama Academy of Family Practice Physicians**
19 South Jackson Street
Montgomery, AL 36104

J. Michael Horsley, President
**Alabama Hospital Association**
500 North East Boulevard
Montgomery, AL 36117

Louise F. Jones, Executive Director
**Alabama Pharmacy Association**
1211 Carmichael Way
Montgomery, AL 36116

Louis E. Cottrell, Jr., Executive Director
**Alabama Nursing Home Association**
4800 48th Street
Valley, AL  36854

Nancy T. Buckner, Commissioner
**Alabama Department of Human Resources**
Gordon Persons Building
50 North Ripley Street
Montgomery, AL  36130

Cary Boswell, MD, Commissioner
**Alabama Department of Rehabilitation Services**
602 S. Lawrence St.
Montgomery, AL 36104

John Houston, Commissioner
**Alabama Department of Mental Health**
100 North Union Street
Montgomery, AL 36130-1410

Irene Collins, Commissioner
**Alabama Department of Senior Services**
770 Washington Avenue
RSA Plaza Suite 470
Montgomery, Alabama 36130

Sam Miller, MD
**Alabama State Board of Health**
8955 Vaughn Road
Montgomery, AL  36117

Hayes V. Whiteside, MD
**Patient Privacy Representative**
100 Brookwood Place
Birmingham, AL  35109
### 11.4 Operational Checklist

<table>
<thead>
<tr>
<th>Completed Y/N</th>
<th>Action</th>
<th>Resources</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y for initial hospitals – round 2 by AHA in 2010</td>
<td>Environmental Scan to establish current status of health care provider readiness for HIE</td>
<td>HIT Advisory Commission, workgroups and provider associations</td>
<td>In-kind contribution</td>
</tr>
<tr>
<td>In process for initial eligible providers: to be completed May 2010</td>
<td></td>
<td>State staff</td>
<td>In-kind contribution</td>
</tr>
<tr>
<td>N for other providers: will be addressed as needed</td>
<td></td>
<td>HIE Contractor</td>
<td>ONC Planning Grant and SMHP Medicaid Funding</td>
</tr>
<tr>
<td>Y completed May 2010</td>
<td>Strategic Plan Development</td>
<td>Space for meetings, computer, telephone lines and internet connection</td>
<td>In-kind contribution by state</td>
</tr>
<tr>
<td>Y completed 5/10</td>
<td>• Completion of Strategic Plan, including governance, legal/policy, finance, technical infrastructure, business and technical operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y completed 5/10</td>
<td>• Identification of State HIT Coordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y contractor procured 3/10</td>
<td>• Identification of state/local resources, including allowable in-kind contributions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In process</td>
<td>• Management of the process, including procurement of contractor support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On hold until naming of ONC</td>
<td>Strategic Plan Approval by ONC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategic Plan Evaluation Plan</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>ARRA Financial Report and tracking system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed Y/N</td>
<td>Action</td>
<td>Resources</td>
<td>Funding Source</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| national evaluator Established 2/10 | Operational Plan Detailed Analysis, timelines and implementation plan including but not limited to addressing  
- State legal entity status  
- Development of Legislative Language  
- State insurance, public health, education, local government entity implications  
- Identifying and removing barriers to HIE intra and interstate exchange, including discussions with border states  
- Preparing state agencies to participate  
- Relationship to Tribal Activities, although this may be non-issue in Alabama  
- Solidifying operational policies and procedures to in relationship to University Education: medical education & informatics (U of Southern Alabama contract with ONC)  
- Determine policy/procedures in relationship to Workman’s Comp. processes if applicable  
- Addressing back-up business processes for “business continuity” & financial sustainability | Tracking system | TBD |
| N Beginning 5/10 | HIT Advisory Commission  
- State Staff support  
- Contractor to manage process & document plan  
- State staff to participate in the process  
- Space, computer support, internet connection, conference speaker phone  
- Tracking system | In-kind contribution  
In-kind contribution  
ONC Planning Grant & Medicaid SMHP Funding  
In-kind contribution  
In-kind contribution by state | TBD |
## Checklist

<table>
<thead>
<tr>
<th>Completed Y/N</th>
<th>Action</th>
<th>Resources</th>
<th>Funding Source</th>
</tr>
</thead>
</table>
|               | • Addressing timelines, including interdependencies of decisions and sequencing  
|               | • Finalizing risk mitigation Plan  
|               | • Continuing alignment of Medicare and Medicaid  
|               | • Solidifying operational policies and procedures to in relationship to REC  
|               | • Statewide requirements & specifications for directories:  
|               | | — Master Patient Index  
|               | | — Provider (NPI)  
|               | | — Connectivity  
|               | | — Relationship to Tribes/IHS  
|               | • Optional: State government requirements for statewide technical infrastructure, including:  
|               | | — Timeline  
|               | | — Data specifications  
|               | | — Transmissions required  
|               | | — Authentication  
|               | | — Authorization  
|               | | — Access control  
|               | | — Triggers  
|               | | — Consent  
|               | | — Breach and breach penalties (updating for federal changes)  
|               | | — Traceability  
|               | | — Expandability  
|               | | — Format  
|               | | — Coding requirements  
|               | | — Core Services  
|               | | — Collecting and reporting data  
|               | | — Connectivity Requirements  
|               | | — Transitional issues, including payment reform  
|               | | — Potential "use cases"  
|               | | — Relationship to HL7, SNOMET, LOINC, etc  
|               | | — Standardization relationship to federal and other states  
|               | | — Relationship to Tribes  
|               | | — Other  
|               | For:  
|               | | • e-claims transactions (ICD-10, HIPAA transaction, 5010, CLIA)  
|               | | • e-prescribing |
## Checklist

<table>
<thead>
<tr>
<th>Completed Y/N</th>
<th>Action</th>
<th>Resources</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Beginning 5/1/10</td>
<td>Develop and submit initial Medicaid Strategic and Operational Plans (SMHP): includes “As is”, “To be”, “Gap analysis”, and Operational Work Plan Medicaid HIT Road Map with Priorities and timelines/milestones (what is simultaneous and what is sequential) to meet Medicaid ARA Requirements to facilitate Statewide HIE Coordination, including appropriate public/private, state to other state and state to federal (MITA Maturity levels 3, 4, 5) for business processes, legal requirements, operations and enforcement, including:</td>
<td>State Staff support</td>
<td>Medicaid SMHP Funding</td>
</tr>
<tr>
<td></td>
<td>— Managing the process</td>
<td>Contractor to manage process &amp; document plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>— Development of strategic plan “deliverable”, including how relates to federal entities (DoD, VA, etc) building off MITA self-assessment if one has been completed</td>
<td>State staff to participate in the process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>— Legal Review</td>
<td>Space, computer support, internet connection, conference speaker phone</td>
<td>Tracking</td>
</tr>
<tr>
<td></td>
<td>— Procurements as appropriate</td>
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<td></td>
<td>— HIT-PAPD</td>
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<tr>
<td></td>
<td>— Incorporation of 5010 and ICD-10 into Planning</td>
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<tr>
<td></td>
<td>— Identifying how SMHP support Mandatory Strategic Plan in (1)</td>
<td></td>
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<tr>
<td></td>
<td>— Receive approval by CMS</td>
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<td></td>
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<tr>
<td></td>
<td>— Separate tracking of Recovery funds non-Medicaid, Recovery funds Medicaid and MMIS/MITA funds</td>
<td></td>
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<tr>
<td></td>
<td>— Expenditure Reporting on CMS 37.12 and CMS 64.10</td>
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<tr>
<td></td>
<td>— Identifying state lead “personnel”</td>
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<tr>
<td></td>
<td>— Identifying and removing barriers to MU of EHR</td>
<td></td>
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<tr>
<td></td>
<td>— Identifying and addressing providers out of state</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>— Addressing timelines, including interdependencies of decisions and sequencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>— Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Checklist

<table>
<thead>
<tr>
<th>Completed</th>
<th>Action</th>
<th>Resources</th>
<th>Funding Source</th>
</tr>
</thead>
</table>
| Y/N       | Review Current Law & Regulations/laws to determine from “as is” to “to be” for both federal and state authority:  
- missing and needs to be added  
- exists and no longer appropriate  
- exists and needs to continue  
- exists and needs to change but outside authority of state to change (federal law)  |
| N: Begin 5/10 | 1. HIT Advisory Committee (internal and/or external)  
2. Consumer & Provider Outreach & Education  
3. contractors to manage process: internal or contract  
4. State staff to participate in the process  
5. legal consult and review and/or outside legal consult via contract depending on issue/topic/approach  
6. As necessary: Space, Computer support, Internet connection, communication support, etc.  
7. Tracking system  
8. APD if Medicaid $  
9. RFP potential  
10. Direct Personnel Costs  
11. Planning Activities  
12. Training  
13. Meetings  
14. Travel  
15. Hardware and Software  
16. Oversight “tools”  
17. Reports | • ONC Grant (3013 of PSA) – HIT 100% but capped cash or in-kind match required beginning FFY 2011 |
|           | Areas of Focus:  
- Privacy and Security  
- Federal Law Compliance: HIPAA, FERPA, MH, Adolescent, Substance Treatment, HIV/AIDS, Other  
- Authorization & authentication  
- Insurance and “entity” status  
- Tax Law  
- Relationship to HISPC and to MITA efforts  
- Other | • Medicaid-HIT (90/10 development |
| Operational Plan: State government requirements for statewide business processes, legal requirements, operations and enforcement, including:  
- Timeline  
- Data specifications  
- Transmissions required  
- Authentication  
- Authorization  
- Audit and Breach  
- Consent  
- Format  
- Coding requirements  
- Connectivity Requirements | • Advisory Committee (internal and/or external)  
- Website (Providers, Consumers and Public)  
- Support for consumer, provider, public, internal state government and external “local government” for outreach, education training, meeting support & travel | • ONC Grant (3013 of PSA) – HIT 100% but capped & cash or in-kind match required beginning FFY 2011 |
|           | • Medicaid-HIT (90/10 development |
### Checklist

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## Checklist

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IHIE/ EHR-system Design and Operations:

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